FOREWORD

ABSTRACT PUBLICATION

This abstract publication contains the abstracts that will be presented as oral and poster presentations as well as abstracts from many of the Invited Speakers. Abstracts are listed alphabetically by last name.

PROGRAMME

The detailed programme is available via the conference website and conference app. These show what is happening: who is presenting, what topic is being presented on, who is chairing the session, what time it is happening, and in which venue.

POSTER SCHEDULE

The poster schedule is available via the conference website: http://aorticconference.org/programme/ and conference app. To locate a particular poster, look at the poser number on the poster schedule then follow the signs in the poster display in the Exhibition Area to find the poster. Posters are loosely grouped in theme categories, alphabetically by corresponding author's last name, and will be displayed in two sessions: POSTER SESSION ONE (Tuesday and Wednesday) and POSTER SESSION TWO (Thursday and Friday)

There will be a dedicated poster viewing time for each session:
POSTER SESSION ONE: Tuesday, 18:15–20:00
POSTER SESSION TWO: Thursday, 16:30–18:00

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LIST OF AUTHORS

Abdella K

CHEMOSAFE: INTERNATIONAL COLLABORATION TO IMPROVE SAFE HANDLING AND ADMINISTRATION OF CHEMOTHERAPY: THE CASE OF ETHIOPIA

Abdella K[1], O'Brien M[2], Gizachew Z[2], Tilahun Y[3]
[1]Federal Ministry of Health Ethiopia, [2]American Cancer Society, [3]Clinton Health Access Initiative

MEETING ROOM 4

**Friday
8 November 2019
08:30–10:00**

OBJECTIVE The study objective is to assess the current level of safe handling and administration in 12 hospitals providing chemotherapy services.

METHODS The chemotherapy handling practices of 12 hospitals providing chemotherapy services were assessed using a pre-designed Chemosafe facility assessment tool.

RESULTS Local Chemosafe working group established. The local team designed and developed training materials, SOPs, and safety guidelines to influence policy and strategy at national level. None of the assessed facilities has any safety standards or equipment in place. Personal protective supplies are not available. Staffs in cancer care did not receive systematic training on safe handling and administration of drugs. Against international standard, none of the hospitals involve pharmacists in drug preparation and administration. A team of nurses and pharmacists from 8 of the 12 hospitals (67%) got a comprehensive training on chemotherapy safety with practical skill stations. Local Chemosafe working group established. International team with wide experience in Chemo safety was involved in the first training of cancer care team.

CONCLUSIONS Local team with high level of expertise can be constituted to support local efforts. The local team can influence policy and national safety strategy to impact change of practice. International collaboration would facilitate development of in country capacity. Expansion of cancer care in the country is not commensurate with the development of a system for safety. Safety provision (to the provider as well as to patients) is an urgent issue that needs immediate intervention.

Abdella K

EXPANSION OF BREAST CANCER TREATMENT TO SIX REGIONAL HOSPITALS IN ETHIOPIA: EFFECT ON PATIENT NUMBERS AND WAITING PERIOD TO INITIATE CHEMOTHERAPY

Abdella K[1], Abebe Y[2], Tilahun Y[2], Ahmed F[2], de Chazal S[2]
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MEETING ROOM 3

Thursday
7 November 2019
13:30–14:30

OBJECTIVES Ethiopia faces a high burden of breast cancer, a lack of accessible cancer treatment centres outside of Addis Ababa, and a large cancer patient backlog at Tikur Anbessa Specialized Hospital (TASH) in Addis Ababa, the main cancer treatment centre in the country. To address these challenges, the FMOH began expanding cancer treatment services to six regional hospitals in 2016 by training general medical practitioners to provide basic breast cancer treatment, and training nurses to administer chemotherapy. The study objective was to measure the number of new patients initiating breast cancer treatment in regional hospitals and the average waiting period (AWP) for patients to initiate breast cancer chemotherapy after prescription.

METHODS Study outcomes were measured by collecting patient registration data from January to December 2018 from hospital registers, and by collecting average waiting period (AWP) estimates by asking oncology unit staff. We then compared results from the 6 regional hospitals with TASH.

RESULTS 515 patients initiated breast cancer treatment across the six regional hospitals in 2018, with a median number of 99.5 patients per hospital in comparison to the 2,676 patients at TASH. Median AWP was estimated to be 1 week at the regional hospitals vs. 4 months at TASH. Median of patients initiating treatment across the six hospitals rose from 31.5 patients over January-June 2018 to 65.5 patients over July-December 2018.

CONCLUSIONS The program was successful at initiating diagnosed breast cancer patients on treatment at regional hospitals. This should reduce financial and geographic barriers to treatment, since regional patients no longer need to travel to Addis Ababa for treatment. In addition, these patients are receiving quicker access to the treatment they need, since travel times for treatment are significantly lower and average waiting periods to begin chemotherapy in regional hospitals are much lower than at TASH in Addis Ababa.

Abraham N

P201 | HIV-TESTING PATTERNS AMONG BLACK CANCER PATIENTS BEFORE AND AFTER IMPLEMENTATION OF PROVIDER-INITIATED COUNSELLING AND TESTING IN JOHANNESBURG, SOUTH AFRICA 2004–2016

Abraham N[1,2], Singh E[1,3], Kuonza L[1,2,3,4], Sengayi M[1,3]

[1]National Cancer Registry (South Africa), [2]South African Field Epidemiology Training Programme (SAFETP), [3]School of Public Health, [4]School of Health Systems and Public Health

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE We sought to establish the patterns of HIV-testing amongst newly diagnosed black cancer patients before (2004–2010) and after (2011–2016) SA implemented the updated HIV counselling and testing (HCT) policy.

METHODS Between 2004–2016, newly diagnosed black cancer patients were recruited at a tertiary referral hospital in Johannesburg, SA. Trained study staff administered questionnaires to collect information on demographics, previous HIV-testing, and other factors associated with previous HIV-testing. HIV-status was determined using an ELISA test and compared to self-reported HIV-status. HIV prevalence was calculated as number of cancer patients who were ELISA positive over total number tested. We used multivariate logistic regression to identify factors associated with HIV-testing among cancer patients.

RESULTS Among 13786 patients, the overall HIV prevalence in cancer patients was 37.6% (95%CI: 36.7–38.3), with 10.8% (95%CI: 9.9–11.6) of HIV-infected participants unaware of their status. Participants recruited in the post-PICT era self-reported a higher proportion (65.1%) of previous HIV-testing compared to pre-PICT era (28.4%). Logistic regression analysis indicated that male participants recruited after implementation were over 2 times more likely [OR=2.22 (95% CI: 1.82–2.71)], to have been previously tested for HIV after adjusting for level of education. Female participants recruited after implementation were over 2 times more likely [OR=2.72 (95% CI: 2.36–3.13)] to have been previously tested for HIV after adjusting for level of education, hormonal contraceptive use, having a child under the age of five, and the type of cancer (non-AIDS defining).

CONCLUSIONS We found that having a secondary/tertiary education and recruitment after implementation of PICT were significantly associated with having had a previous HIV test for both men and women. Despite improved HIV-testing, 10.8% of HIV-infected black cancer patients were still undiagnosed. There is a need for cancer patients to be included as a key population in national HIV testing policies for targeted opt-out HIV testing through PICT.

Abubakar M

LB014 | TUMOR INFILTRATING LYMPHOCYTES IN RELATION TO CLINICAL AND EPIDEMIOLOGICAL FACTORS IN THE GHANA BREAST HEALTH STUDY

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Tumor infiltrating lymphocytes (TILs) have been associated with favorable clinical outcomes in triple-negative breast cancer (TNBC) and with adverse outcomes in luminal A breast cancer in women of European ancestry. However, there are limited studies on the clinicopathological and epidemiological significance of TILs among sub-Saharan African women, who are disproportionately affected by TNBC.

METHODS This analysis comprised of 801 women with invasive breast cancer in the Ghana Breast Health Study, a population-based study conducted from 2013 to 2015 in three hospitals in Accra and Kumasi, Ghana. Using supervised machine-learning on digitised hematoxylin and eosin-stained slides, we quantified TILs in intra-tumoral and peri-tumoral stromal regions of slides. Automated TILs were validated by comparing with those from two pathologists in $500\mu m \times 500\mu m$ square regions-of-interest (n=24). Associations between TILs and tumor clinicopathological (age, grade, ER, PR, HER2, size) and risk factors (parity, breastfeeding, menarche, body size phenotypes (lean, average, heavy), family history) were tested in multivariate linear regression models.

RESULTS We observed good correlation between automated and pathologists' TILs (r2 =0.81). Percent TILs (defined as the area occupied by TILs over total stroma area) was significantly higher in tumors of larger size and higher grade at $P<0.05$. Among the risk factors evaluated, %TILs was most strongly associated with body size, independently of tumor size and subtype, but varying in relation to grade (P=0.02): %TILs was higher in heavy (median=8.2%) than in lean (median=6.2%) women with low grade tumors (P=0.005) whereas in those with high grade tumors, %TILs was lower in heavy (median=9.9%) than lean (median=11.8%) women (P=0.010). No significant relationships at $P<0.05$ were seen with other clinicopathological and epidemiological risk factors.

CONCLUSION In this population, we found %TILs to be associated with poor prognostic tumor characteristics and to show discrepant associations with body size depending on histologic grade. These findings suggest interactions between body size, %TILs, and grade to mediate clinical outcomes in breast cancer.

Abudullahi H

P352 | PATIENTS NAVIGATION AFTER REFERRAL FOR CHEMORADIATION IN LOW RESOURCE SETTINGS

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NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Chemoradiation is the standard of care for management of locally advanced cervical cancer. Cancer in low resource settings is generally characterised by late presentation. Over 80% of cervical cancer in Nigeria presents at stages where chemoradiation is the best evidence-based management option. Unfortunately, radiotherapy services are not readily available in low resource settings. We therefore surveyed outcome of referral for chemoradiation in other to gain insight into how patients navigate the challenges in accessing radiotherapy services

METHODOLOGY A cross sectional survey through telephone interview of patients diagnosed of cervical cancer at university of Abuja Teaching Hospital over a 30 months period from July 2016 to December 2018. The names and hospital numbers of cases of cervical cancer diagnosed in the institution over the study period were extracted from gynaecology register and their folders were subsequently retrieved for clinical details and their contact phone number. A telephone interview was subsequently conducted using a semi structure questionnaire.

RESULT Out of the 1796 total gynaecological admissions during the study period, 67 were cervical cancer giving a prevalence of 3.73%. Only 53 case notes were retrieved out the 67 cases managed giving a retrieval rate of 79.1%. Only 28 patients or their next of kin could be reached for the study of which majority 22(79%) have not access treatment as of the time of study. Amongst the 6 (21%) that reported they have received treatment 5 had treatment in Nigeria while 1 had in India. None (0%) of those treated in Nigeria had brachytherapy.

CONCLUSION Radiotherapy services are not readily accessible in Nigeria with attendant frustration to the patients and their care givers. Clinicians referring patients for radiotherapy should at the very least regularly update themselves of functional status of radiotherapy centres across the nation and avail patients with such information.

Abuidris Elmustafa D

PATIENTS' CHARACTERISTICS AND CYTOCHROME P4501A1 GENETIC POLYMORPHISM AND BREAST CANCER RISK IN SUDANESE WOMEN

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[1]University of Gezira, [3]University of Purdue, [4]University of Khartoum

MEETING ROOM 3

Thursday
7 November 2019
13:30–14:30

PURPOSE The CYP1A1 gene is highly polymorphic in human populations and ethnic differences in the distribution of these polymorphisms have been reported in various populations. The aim of the study to evaluate the association of three polymorphic variants in the CYP1A1 gene with breast cancer susceptibility in Sudanese women.

PATIENTS AND METHODS 100 patients and 100 controls were studied after written consent. A questionnaire extracted sociodemographic data, family history of breast cancer and gynecological history. Clinical examination was performed including weight and heights. Blood was drawn for PCR and RFLP analysis for CYP1A1 genotyping.

RESULTS Premenopausal age and later age at menopause, education levels, family history of breast cancer and BMI had significant associations with breast cancer risk in Sudanese women. The CYP1A1 M1 genotype was not associated with the risk of breast cancer in pre-post-menopausal ages neither were the CYP1A1 M3 genotypes in this respect. There were no homozygous CYP1A1 M1 (C/C) and the CYP1A1 M3 (C/C) genotypes in our study subjects. The homozygous CYP1A1 M2 (A/A) genotype had a significant association with risk reduction of breast cancer in premenopausal women. The heterozygous CYP1A1 M2 (A/G) and the homozygous (G/G) were associated with a significant increased risk of breast cancer.

CONCLUSION This study has shown that the CYP1A1 M2 polymorphism has an association with the risk of developing breast cancer among Sudanese patients. Illiteracy and family history of breast cancer have a highly significant association with breast cancer risk.

Achieng E

P057 | RISK FACTORS, SIGNS AND SYMPTOMS OF BREAST AND CERVICAL CANCER: A POPULATION BASED SURVEY

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES

1. To explore the knowledge on risk factors for breast and cervical cancers in Busia and TransNzoia Counties in Western Kenya
2. To explore the knowledge on signs and symptoms for breast and cervical cancers in Busia and Transnzoia Counties in Western Kenya.

METHODS A cross sectional study design was used to conduct the survey in Busia and TransNzoia Counties. An interviewer assisted questionnaire was administered to the general adult population at household level targeting 1801 respondents. Stratified sampling was used to ensure representation at sub counties and village level. All consenting participants were interviewed using a Knowledge questionnaire that covered different aspects of the diseases. Each of them was then graded on their awareness of at least one risk factor and one sign/symptom. Data was entered into a pre-programmed Redcap database and analysed using Statistical Analysis Software(SAS).

RESULTS 913 Males and 888 Females over the age of 18 were interviewed. Knowledge on at least one risk factor for breast cancer was 10.2% for Males and 8.5% Females. And on one risk factor for cervical cancer was 0% for Males and 9.6% for Females. While knowledge on at least one sign/symptom for breast cancer was 14.5% for males and 26% for females. And on one sign/symptom for cervical cancer was 3.2% for Males and 7.6% for Females.

CONCLUSION There is very low knowledge on risk factors and symptoms/signs of breast and cervical cancers which provides an opportunity for awareness campaigns and training of community health workers at the village level on these cancers that will lead to increased uptake of screening services and early detection, hence better treatment outcomes. This study was done as part of the Integrated NCD project (PIC4C) funded by the World Bank in Kenya.

Adamu D

P202 | IMPLEMENTATION AND EFFECTIVENESS OF COMMUNITY-BASED RESOURCES TO INCREASE CERVICAL CANCER SCREENING UPTAKE AMONG WOMEN LIVING IN SUB-SAHARAN AFRICA: A SYSTEMATIC REVIEW

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[1]University of Edinburgh, [2]Gombe State University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES To review the literature for evidence of implementation and effectiveness of community-based resources such as community health workers (CHWs) and community-based organisations (CBOs) in increasing the uptake of women in CC screening, in the setting of high HIV burden, in SSA.
METHODS We searched MEDLINE, EMBASE, PsycINFO, Global Health, CINAHL Plus, Web of science, ASSIA, Cochrane central, Open grey, Google scholar, ProQuest dissertation and Thesis global, AIM, AJOL and AORTIC databases, plus hand-searching and citation-tracking, from 1980 to date. We looked for studies with a community focus, reporting impact of CHWs and CBOs in SSA with and without comparison groups, and without language or study design restrictions using pre-specified search strategies. We identified 22, 710 articles, after de-duplication and title and abstract screening, 132 full-text articles were assessed for eligibility: 87 were excluded, and 45 articles, (reporting on 49 studies) met the inclusion criteria. Methodological quality was assessed using EPHPP tools.
RESULTS The 49 studies were representative of SSA regions; West (n=13), East (n=14), Central (n=4) and Southern (n=18). There were 30 cross-sectional, 6 RCTs, 6 pre-test/post-test, 5 qualitative, 1 mixed-methods and 1 cohort, studies respectively. Most studies were of moderate quality (n=26). Screening methods included were VIA/VILI, Pap smear, HPV-testing or a combination. CHWs were involved in awareness raising, screening provision (in a minority of studies), and in follow-up of individual women. The role of CBOs was primarily in organising screening campaigns and providing screening within their institutions. Overall, we found acceptability of these approaches within communities, and some evidence of effectiveness and use of CHWs and CBOs in increasing uptake in CC screening in SSA.
CONCLUSIONS This review showed that CHWs and CBOs can sustain the WHO recommended task-shifting in resources-limited SSA, more so, they provided culturally appropriate support because of their understanding of the context

Adamu D

P203 | THE GOMBE MULTIDISCIPLINARY TUMOUR BOARD: OUR 3-YEAR EXPERIENCE

Adamu D[1,2], Ali-Gombe M[1,2], Aliyu-Ibrahim L[1,2], Manga M[1,2], Yunusa-Kaltungo Z[1,2], Alkali Y[1,2], Akintububo B[1,2]
[1]Gombe State University, [2]Federal Teaching Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES Multidisciplinary approach to the management of tumours is the standard practice worldwide. The Federal Teaching Hospital Gombe, Gombe State University and collaborating organisations established a pragmatic multidisciplinary tumour board (MDTB) with the aim of discussing all categories of tumours and to harmonise professionals and patient's treatment to imaging, pathology, immunology, surgery, medicine, radiation therapy, chemotherapy and pharmacy, nursing, psychology, physiotherapy, social welfare, dietetics, community and public health, chaplaincy, patient support groups, administrators and the media for first-class performance.

METHODS The group comprises of representatives of the respective departments and institutions above. The group usually meets forth nightly. Our mode of operation includes: review of cases; consensus of opinion on line of management; breakout into 6 multidisciplinary teams (MDTs) – Breast/GIT, Head & Neck/CNS, MSS, Haematology, Paediatric and Gynae/Urology; case presentations; protocol development; presentation of specific topics; observing world cancer days with the public including cancer education, advocacy and free screening; pink months, World HPV days, fund raising; and liaison with Nigerian cancer society, pharmaceuticals, regional and international hospitals and experts.

RESULTS Over the past 3 years, we had more than 70 meetings. About 40 cancer patients/cases were discussed: Breast (n=9), Gynaecological (n=8), Head and Neck (n=8), Haematological (n=5), paediatric (n=4), Urology (n=2), GIT (n=2) and multiple primary (n=3). We have screened about 400 men and women: mammography, Pap smear, PSA, DRE and HbsAg. Our accomplishments so far includes improved collaborations and coordination in patients' management; reduced waiting time; funding of patients' treatment and obtaining fee waivers; logistics support; training and research; value-added advocacy, education and outreach. The highlight of this presentation will be our achievements, challenges and the way forward.

CONCLUSION Our tumour board was a success, it resulted in improved coordination of care and collaboration between experts and hence improved patients' quality of life and survival.

Adegboyega B

P326 | PATTERN OF REFERRAL FOR RADIOTHERAPY SERVICES AT LAGOS UNIVERSITY TEACHING HOSPITAL

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[1]Lagos University Teaching Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

In Nigeria like many developing countries in Africa, about 100,000 new cancer cases are diagnosed annually with paucity of Oncologist and Radiotherapy facilities to meet up with the increasing demand for Radiotherapy and Oncologist services leading to long distance travel to access the services and long waiting time to commence treatment which subsequently worsens the outcome.

OBJECTIVE The purpose of this study was to identify the pattern of referral for radiotherapy services to the Lagos university Teaching Hospital with the aim of providing information on accessibility to Radiotherapy facilities in Nigeria and to inform future health planning and budgeting.

METHOD This is a retrospective study of all the new cases referred to the Radiotherapy department of Lagos University Teaching Hospital (LUTH) between April and September 2017. For each referral we collected the demographic data, cancer type, reasons for referral, where they were referred from and time to presentation. This information was analysed and presented in frequency tables and charts.

RESULTS A total of 156 case notes were analyzed during the study period with 117 (75%) females and 39 (25%) male with age range between 6 and 89 years. The common cancer cases seen were breast (41.7%), cervix (16.0%), head and neck cancers (12.8%) and prostate cancer (7.7%). The Referrals from within Lagos state was 80 (51.3%) and 76 (48.7%) from outside the state consisting of 27.6% from other south-western states, 28.9% each from south-east, and south-south Zones, 9.2% from North central and 2.6% from north-west zone. The distance travelled from referral states to Lagos state ranged between 62km and 1107km with a mean distance of 553km. The time from diagnosis to referral was less than 1 month in 122 patients, between 1 to 6 months in 29 patients and over 6 months in 5 patients.

CONCLUSION Radiotherapy services in Nigeria is inaccessible which in turn worsens the cancer prognosis and so there is need for Government, policy makers and private investors at all levels to jointly form an alliance that will alleviate the suffering of patients who travel from far and near to access these scarce resources, reduce the waiting period and improve the prognosis.

Adejimi A

P103 | PERCEPTIONS AND PRACTICES OF PROSTATE CANCER PREVENTION AMONG MEN LAGOS, NIGERIA

Adejimi A[1,2], Ayodele T[1], Roberts A[1]
[1]University of Lagos, [2]University of Ibadan

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The aim of this study was to assess the knowledge of, attitude to and practices of prostate cancer prevention among men in Lagos, Nigeria.

METHODS A descriptive cross-sectional study involving 426 male participants in a selected Local Government Area of Lagos State, Nigeria was conducted. The participants were selected using a multistage sampling technique. A pre-tested self-administered questionnaire was used for data collection and data analysis was done using Epi Info. Chi-square statistics was used to test the association between the variables at the level of significance of 5%.

RESULTS The mean age of the respondents was 42.6 ± 7.6 years. Majority (72.3%) of the respondents were married. The major sources of information about prostate cancer prevention were media and health worker. More than half of the respondents (62.4%) had good knowledge of prostate cancer and its prevention. Almost all (98.0%) the respondents had positive attitude towards prevention of prostate cancer. However, only 8.9% of the respondents reported previous screening for prostate cancer. The major reasons for screening for prostate cancer were based on the recommendation by their doctor (43.8%) and on the information from social media (34.5%). Reasons for not screening for prostate cancer include fear of being diagnosed of prostate cancer (12.8%), lack of awareness (23.3%) and lack of doctor's recommendation (40.4%). There was a statistically significant association between the level of education and knowledge of prostate cancer. There were also statistically significant associations between knowledge, attitude and preventive practices of prostate cancer.

CONCLUSIONS Majority of the respondents had good knowledge and good attitude towards prostate cancer prevention but only a few had been screened for prostate cancer. There is a need for a community-based health education for men on prevention of prostate cancer and training of health care workers on the recommendation of prostate cancer screening in order to increase the screening practices for the prevention of this disease.

Adejumo P

GENETIC TESTING AMONG PATIENTS WITH SELECTED CANCERS: PROSPECTS FOR CANCER PREVENTION AND DETECTION IN IBADAN, NIGERIA

Adejumo P[1], Aniagwu T[1,2], Oni A[2], Fagnenle O[2], Awolude O[1,2], Olopade O[3]
[1]University of Ibadan, [2]University College Hospital Ibadan, [3]University of Chicago

MEETING ROOM 3

**Wednesday
6 November 2019
13:30–14:30**

BACKGROUND AND OBJECTIVE Cancer predisposition genes describe genes are implicated as increased risk of cancer through germline mutations. Research has shown a high frequency of BRCA 1 and 2 mutations in Nigerian population leading to the evolvement of an established process of cancer risk assessment which is a panacea for precision in cancer prevention and care. The authors assessed the frequency of deleterious germline mutations among individuals with selected common cancers who had genetic testing using a panel of 30 genes associated with inherited cancer predisposition. Also, the intention of testing for germline mutations for cancer risk in relatives was assessed.

METHODS One hundred patients were recruited into the cohort from June to Dec 2018. Participants were patients with breast, ovarian, endometrial and prostate cancer from four oncology departments and units of the University College Hospital, Ibadan, Nigeria. Informed consent was obtained from the patients, genetic counselling was provided by trained nurses and saliva samples were obtained for the 30-panel gene testing sequenced by Colour Genomics, USA. Also, a cross sectional survey was conducted with a questionnaire to capture the detailed personal and family history as well as the intention of genetic testing for family members. Approval was obtained from the UI/UCH Ethics Committee.

RESULTS Out of the 100 patients tested, 17 (17.0%) mutations were identified in 4 genes which are 7 (41.1%) BRCA1, 6 (35.3%) BRCA2, 2 (11.7%) ATM, and 2 (11.7%) PALB2, all of which are implicated in breast, ovarian and prostate cancer susceptibility. Family history of cancer was not predictive of mutations. A large proportion of patients that had genetic testing would like to discuss the test result with their daughters (76.0%), sisters (67.0%) and sons (63.0%) and would like them to get tested for risk assessment and preventive action.

CONCLUSIONS Identifying an underlying mutation in a cancer patient can provides important information that can aid prevention, early diagnosis and effective management. It is however appropriate that all clinicians in cancer care will become genome aware to provide appropriate care that is personalised for the patients and their relatives.

Aniagwu T

P267 | PERCEPTIONS OF AND WILLINGNESS TO PAY FOR GENETIC TESTING AMONG PATIENTS WITH CANCER IN IBADAN, NIGERIA

Adejumo P[1], **Aniagwu T**[1,2], Ajayi O[1,2], Ogungbade D[2], Kochheiser M[3], Olopade O[3]
[1]University of Ibadan, [2]University College Hospital Ibadan, [3]University of Chicago

NEW HALL

Thursday
7 November 2019
16:30–18:00

Genetic testing has become a pathway to personalised medicine which is also being embraced in Nigeria. However, little is known about how demographics and perceptions influence individuals' willingness-to-pay for cancer GT. This study aimed at assessing the acceptance, perceived benefits of genetics and willingness-to-pay for genetic testing among patients with cancer in Ibadan as a catalyst for sustainability of Cancer Risk Management Programme. Cross-sectional study using a semi-structured questionnaire. Unselected patients with breast, ovarian, endometrial and prostate cancers were seen in Surgical Out-patient, Radiation Oncology, Gynaecology and Radiology Department of University College Hospital (UCH), Ibadan received genetic counselling (GC) and were offered subsequent GT. Primary outcome variable was willingness to undergo genetic testing to determine the risk of cancer from a genetic mutation and the secondary variables were age, educational level, perception about GT and concerns about cancer in relatives. Ethical approval was obtained from the UI/UCH Ethics Committee. Data of first 100 patients tested in the ongoing study were analysed. Patients' ages ranged from 33 to 77 years with majority (83.0%) of the patients having breast cancer. Respondents' monthly income averaged N40,940. Majority of the patients (83.0%) had positive perception of benefits of GC. About three-quarter of them (72.0%), had concerns about their relatives getting cancer while most of the patients (95.0%) would want their relatives to have cancer GT. Benefit of cancer genetics and risk assessment in relatives was perceived by most of the patients (86.0%) to help with early detection of cancer while most (80.0%) viewed cost as the major barrier to GT. All of the patients were willing to test for mutations but 66.0% were willing to pay for the service out of which 35.0% offered to pay between N10,000 and N30,000 compared to $250 in the US. There were significant associations between age, educational level, income, perceived benefits with willingness to pay. Learning clinically relevant details toward cancer prevention to inform health-related decisions in patients and relatives is a motivator for willingness to pay for genetic testing in low- and middle-income country. Increased awareness may influence the outcomes of cancer risk management.

Adeniji Sofoluwe A

LB040 | MAMMOGRAPHIC BREAST DENSITY IN PREMENOPAUSAL WOMEN IN IBADAN NIGERIA

Smart A[2], **Adeniji Sofoluwe A**[1,2], Obajimi M[1,2]
[1]University of Ibadan, [2]University College Hospital

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

BACKGROUND Hormonal factors influence mammographic density and responsible for differences in mammographic density in premenopausal compared with postmenopausal women. High mammographic density is an independent marker for breast cancer, reducing visibility of cancerous masses in the breast with lower rates of cancer detection and higher stages at presentation. Recent studies in Nigeria show increasing incidence of breast cancer among young premenopausal women; in contrast to more westernised societies with higher incidence among postmenopausal women.

OBJECTIVE To determine the distribution of mammographic breast patterns and significant reproductive/anthropometric factors associated with high-density breast patterns in premenopausal women in Ibadan.

METHOD A prospective cross-sectional study of 355 premenopausal women who presented for screening/diagnostic mammography at the University College Hospital and Access to Basic Care Foundation Ibadan. Relevant socio-demographic data and other relevant medical history were obtained using an interviewer administered questionnaire. Anthropometric measurements were taken and mammography examinations performed. The breast pattern and final Breast Imaging Reporting and Data Base System (BI-RADS) category were assessed and documented using the American College of Radiologists (ACR) classification 5th edition.

RESULTS The mean age of the participants was 46.3+ 4.2 years (range 35–57 years). Most women (95.2%) were parous while <5% were nulliparous. All the parous women had positive breastfeeding history with a median cumulative duration of 36 months (IQR=30 months). The scattered fibroglandular density was predominant 157 (44.2%), followed by the heterogeneously dense 115 (32.4%) and almost fatty replaced pattern 41 (11.6%). The Final BI-RADS category showed that slightly over a third 138 (38.9%) of participants had inconclusive mammograms, 52 (14.6%) were negative, 111(31.3%) were benign, while 54 (15.2%) had equivocal to highly suggestive of malignancy. Factors that were significantly associated with high-density breast pattern (heterogeneously dense and extremely dense breast patterns) were younger age (p=0.026), high educational status (p=0.02), lower age at menarche (p =0.034), nulliparity or low parity (p <0.001), older age at first childbirth (p <0.001), negative or short breastfeeding history (p <0.001) and body mass index < 25kg/m2 (p<0.001). Previous multiple births was significantly associated with low-density breast pattern (p=0.033) while a final BI-RADS assessment category of 0 (inconclusive) or 4 to 6 BI-RADS was associated with high-density breast pattern. (p<0.0001). BMI, parity and cumulative duration of breastfeeding as factors independently associated with breast density.

CONCLUSION High-density breast pattern is independently associated with low parity, short breastfeeding period and low BMI in premenopausal women.

Adeniji Sofoluwe A
NEW FRONTIERS & RECENT ADVANCES IN ONCOLOGY IMAGING

Adeniji Sofoluwe A[1]
[1]University of Ibadan

MEETING ROOM 2

Thursday
7 November 2019
07:15—08:20

Oncology imaging is performed to prevent, diagnose and treat cancer. In the past, oncology treatment involved the use of surgery, chemotherapy and radiotherapy alone but strategies have evolved to include metabolic, ablative, anti-angiogenic treatments targeted at both size and functional affectation of tumours with measurement parameters changing from uni- to multi-dimensional. The challenges faced in oncology imaging have also changed as anatomical coverage and sensitivity were the main concerns for screening and workup then. Now, therapeutic response assessment and follow-up are key issues in oncology management that require objective criteria for increased specificity and reproducibility of imaging assessments. Although CT, MRI and PET are currently utilised in oncology imaging, there are recent advances in techniques that can be applied to existing modalities such as DWI, ADC, CT Perfusion. CT perfusion is useful in oncology for tissues characterisation, prognosis, and prediction of tumour response to chemotherapy (systemic or local) prior to an actual change in tumour size. Perfusion values are quite distinct in benign and malignant lesions hence, tumour aggressiveness and propensity to metastasise can be predicted due to increased angiogenesis as can necrotic tumours that indicate hypoxia can predict likely non responders to chemo-radiation. MRI is another evolving modality that improves phenotyping of cancers, assess treatment response by relying on the high contrast and spatial resolution and physiological evaluation of tumour morphology, vascularity and oxygenation in blood and surrounding tissue. Metabolism with 13C and diffusion can also be measured with ADC mapping and DWI. Recently fusion studies such as PET/MRI can further be applied to improve the sensitivity of oncology imaging.

Molecular imaging involves measurement of biological processes at the cellular and molecular levels. It integrates biology, imaging and chemistry and utilises many targets/agents at clinical and preclinical levels. New technologies like molecular imaging, optical/ optoacoustic imaging and biology driven interventional radiology and theranostics have created new frontiers in oncology imaging. Radiomics is an emerging translational field of research that can extract mineable high-dimensional data from clinical images using a high-throughput quantitative method to discover clinically relevant data not detectable from radiological images. The future is in the integration of these features to facilitate deep learning and Artificial Intelligence involvement in oncology management. Personalised oncology treatment focuses on genomic analysis, targeted drug therapy, cancer therapeutics and molecular diagnostics. Genes, gene expressions, proteins and metabolites now guide imaging interventions and biomarker use have predictive, prognostic and early response markers.

Adisa R

P031 | ANNONA SENEGALENSIS STEM BARK EXTRACTS ORALLY PRE-ADMINISTERED TO WISTAR STRAIN ALBINO RATS ATTENUATED DOXORUBICIN INDUCED HEPATOTOXICITY AND OXIDATIVE STRESS

Adisa R[1], Bamiro G[1]
[1]University of Lagos

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Doxorubicin (DOX)-induced hepatotoxic animal models are purposefully being used to investigate its mechanism of toxicity for insight into developing interventions for militating against toxicity during cancer management. This study was designed to investigate the protective potential of Annona senegalensis stem bark extracts (ASE) on DOX-induced mitochondrial membrane damage and oxidative stress in liver of albino rats.

METHODS ASE was subjected to phytochemical screening and acute toxicity study. Thirty male Wistar strain albino rats (13 weeks old; 150 –160g) were randomly divided into six (6) groups (n= 5 per group). Group A (control) received distilled water, Groups B, C, D, E, and F received DOX only (20mg/kg), DOX (20mg/kg) + ASE (100mg/kg), DOX (20mg/kg) + ASE (200mg/kg), DOX (20mg/kg) +ASE (400mg/kg), ASE (400mg/kg) only, respectively. ASE was pre- administered orally for 7 days to rats in group C, D, E and F, before administered DOX intraperitoneally on day 7 to group B, C, D and E. Rats were sacrificed and biomarkers of oxidative stress and liver membrane damage were evaluated. Data were analysed using SPSS16.0 and values were expressed as mean ± SEM.

RESULTS Phytochemical screening revealed presence of tannin, saponin, phenol, flavonoid, alkaloids, terpenoids, reducing sugar, cardiac glycosides and absence of combined and free anthraquinone. The total flavonoid, phenol, tannin and reducing sugar content of ASE were 13.11 ±1.09, 27.19 ± 0.61, 8.98 ± 1.2, 27.3 ± 1.6 mg gallic acid equivalent, respectively. No deaths were recorded, and the lethal dose was > 2000mg/kg body weight. Orally pre-administered ASE concentration –dependently increased level of glutathione and activities of catalase and superoxide dismutase in both hepatic mitochondrial membrane and post mitochondrial fractions (PMF) compared to DOX only-treated animals. Malondialdehyde levels gradually and significantly ($p < 0.05$) decreased concentration dependently.

CONCLUSIONS The results revealed that stem bark of ASE has chemo-protective potential on liver mitochondria and PMF against DOX-induced toxicity attributable to its constituent phytochemicals.

Adoke K

P232 | IDENTIFYING THE COMMON MUTATIONS IN SMALL ROUND CELL TUMOURS FOR IMPROVED TREATMENT IN AFRICAN CHILDREN

Adoke K[1], Hassan I[2], Iliyasu Y[3]
[1]Federal Medical Centre, [2]Usmanu Danfodiyo University Teaching Hospital, [3]ABUTH Zaria

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Childhood cancers as a growing public health challenge and is increasingly being recognised worldwide, including the developing nations. Tremendous progress has been made in the treatment and cure of childhood cancers mostly in the developed world, most cases die of childhood cancers in our society. Childhood cancers had a 14-times lower mutations rates than adult cancers with different genes mutated in childhood compare with adult cancers. Small round cell tumours (SRCT) is a term used for tumours composed of malignant round cells that are slightly larger or double the size of red blood cells in air-dried smears. Small Round cell tumour (SRCT) of childhood is a diverse group of cancers that have considerable overlap in epidemiology, morphology and immunophenotype. They are characterised by small round undifferentiated primitive cells. They include Ewing Family Tumours, rhabdomyosarcoma, synovial sarcoma, Non-Hodgkin's lymphoma, retinoblastoma, neuroblastoma, mesenchymal chondrosarcoma, medulloblastoma and nephroblastoma. Others include small cell osteogenic sarcoma, undifferentiated hepatoblastoma, granulocytic sarcoma, and intraabdominal desmoplastic small round cell tumour. Most patients die within 1 year of chemotheraphy/radiotherapy from complications of the drugs while others are lost to follow up due to financial burden.

METHODS Twenty-two cases of SRCT of childhood were reviewed over a two-year period (2017–2018). Parrafin blocks were cut and stained with H&E, six antibodies were used for immunohistochemistry namely CD99, Desmin, CD10, CD20, BCL2 and chromogranin.

RESULTS Patient's age ranges from 6months to 9 years with a male female ratio of 3:2. The commonest SRCT was Burkitt Lymphoma 7(31.8%), retinoblastoma 5 (22.7%), alveolar rhabdomyosarcoma 4(18.1%), follicular lymphoma 2 (9.1%), ES/PNET 2 (9.1%), nephroblastoma 1 (4.5%) and neuroblastoma 1 (4.5%). Almost 70% (15) patients die within one year of starting chemotherapy/radiotherapy with the highest mortality seen in patients with Burkitt's, alveolar and ES/PNET.

CONCLUSION While tremendous progress has been made in the treatment of childhood cancers in the developed world, it still remains an important health problem in our societies largely because of multifactorial reasons, one of which is lack of identification of common mutational genes in our environment for possible targeted therapy.

Agalliu I

P104 | PILOT STUDY OF PROSTATE CANCER SURVIVAL AMONG AFRICAN PATIENTS IN THE MEN OF AFRICAN DESCENT AND CANCER OF THE PROSTATE

Agalliu I[1], Andrews C[2], Jalloh M[3], Joffe M[4], Hsing A[5], MADCaP Consortium[2]
[1]Albert Einstein College of Medicine, [2]Dana Farber Cancer Institute, [3]Hopital General de Grand Yoff, [4]University of the Witwatersrand, [5]Stanford University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Men of African descent have the highest burden of aggressive and lethal prostate cancer (PrCa). In Sub-Saharan Africa (SSA), PrCa accounts for 19% of all cancer-related deaths. However, there has been no large-scale PrCa survival studies in SSA. The objective of this study was to assess the feasibility of establishing a PrCa survival cohort in SSA, and ascertain cancer treatment, vital status/cause of death, and determine willingness of PrCa patients to participate.

METHODS A total of 137 PrCa patients, who were initially enrolled in an ongoing PrCa genetic study across seven hospitals in West and South Africa (U01CA184374) in the MADCaP consortium, were followed from their cancer diagnosis and enrolment into the main study through date of death, date of last contact or end of follow-up: 12/31/2018. Follow-up was carried out by direct phone contact of patients and/or their next-of-kin and by reviewing medical records of follow-up hospital visits. PrCa patients alive at contact were invited to participate into the pilot study and completed a brief survey to assess their general health and symptoms as well as quality of life.

RESULTS The average age of 137 PrCa patients was 68 years old (range 40–88), 70 (51%) and 41 (30%) of them were diagnosed with Gleason score 8–10 cancer, or advanced tumour stage (T3/T4), and the median PSA at diagnosis was 100 ng/ml. Majority of patients received either radiation or hormone deprivation therapy; although there was variability across centres. During an average 20.3 months of follow-up, a total of 29 (21%) patients had died, and 23 (17%) were lost to follow-up; 69% of deaths were due to PrCa. Interestingly majority of patients who died (62%) and those lost to follow-up (61%) had Gleason score 8–10 cancer. Among PrCa patients alive (N=85) at contact, 95% agreed to participate in the pilot study and completed the protocol.

CONCLUSIONS This feasibility study demonstrated the ability to follow-up PrCa patients across several centres and highlighted the advanced clinical characteristics of PrCa and relatively low survival among African men. However, larger studies are needed to better understand the clinical and epidemiological risk factors for PrCa survival in Africa and develop strategies to address survival bias and lost to follow-up.

Ahearn T

LB017 | BREAST CANCER GENETIC SUSCEPTIBILITY FROM RARE AND COMMON VARIANTS IN THE GHANA BREAST HEALTH STUDY

Ahearn T[1], Wiafe B[2], Awuah B[3], Clegg-Lamptey J[4], Easton D[5], Figueroa J[6], Garcia-Closas M[1]
[1]National Cancer Institute, [2]Peace and Love Hospital, [3]Komfo Anokye Teaching Hospital, [4]Korle Bu Teaching Hospital, [5]University of Cambridge, [6]The University of Edinburgh Medical School

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Women of West African ancestry are more frequently affected by early onset, ER-negative (ER-) breast cancers than other populations, potentially due to genetic susceptibility. However, genetic studies have largely been performed among women of European ancestry.

METHODS The study population included up to 899 breast cancer cases and 1,630 controls from GBHS, a population-based case-control study of breast cancer. Approximately half of the tumors were ER-. Protein truncating mutations in 35 known or suspected breast cancer genes were determined using the BRIDGES targeted sequencing panel. A polygenic risk score (PRS) based on 313 common variants that was previously developed by the Breast Cancer Association Consortium (BCAC) in women of European ancestry was determined using genotyping arrays and imputation. Multivariable logistic regression was used to estimate odds ratios (ORs) and 95% confidence intervals (CI) of breast cancer risk.

RESULTS The percentages of cases/controls with truncating mutations in any of six established breast cancer genes were 7.78%/1.15%, respectively: BRCA2 (n=34/n=23), BRCA1 (n=22/n=17), PALB2 (n=9/n=9), ATM (n=4/n=7), TP53 (n=1/n=1) and CHEK2 (n=0/n=0). OR (95%CI) for mutation carriers by ER+ and ER- tumor status were: BRCA1 [5.48 (1.02–29.51) / 26.98 (7.46–97.6)], BRCA2 [9.05 (3.73–21.97) / 5.90 (2.23–15.64)], and PALB2 [36.61 (4.17–321.63) / 6.74 (0.41–111.28)]. Of all the other genes, only mutations in RAD50 were significantly associated only with ER+ disease [8.19 (1.31–51.07)]). The OR (95%CI) per 1 SD of the PRS was 1.22 (1.13–1.33), and the OR (95% CI) for women at the highest 5th percentile compared to average risk was 1.87 (1.40–2.51).

CONCLUSION Truncating mutations in some established breast cancer genes have large relative risks and affect ~8% of cases in the general population. The 313-variant PRS stratifies women according to risk, albeit less-so than in women of European ancestry. Additional larger breast cancer genetic studies in West Africa are needed to improve genetic risk stratification in this population.

Ahmed E

P153 | BZLF1-DEC205 FUSION PROTEIN ENHANCES EBV-PROTECTIVE IMMUNITY IN A SPONTANEOUS MODEL OF EBV-DRIVEN LYMPHOPROLIFERATIVE DISEASE

Ahmed E[1], Brooks E[1], Sloan S[1], Schlotter S[1], Jeney F[1], Hale C[1], Mao C[1], Shindiapina P[1], Caligiuri M[2], Baiocchi R[1]

[1]The Ohio State University, [2]City of Hope National Medical Center

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Epstein-Barr virus (EBV) is a human herpes virus that infects over 90% of the world's population and is linked with cancer development. Risk of EBV-driven cancers increases with immune suppression (IS). Organ transplant recipients receive IS to prevent graft rejection and are at highest risk of developing EBV-associated lymphomas known as post-transplant lymphoproliferative disease (PTLD). Reducing the level of IS medication may control PTLD but often leads to graft-rejection. The focus of our research is restoring or enhancing EBV-specific immunity to promote long-term protection from EBV-driven cancers.

METHODS We developed a vaccine to bolster EBV-specific immunity by targeting the EBV immediate early protein, BZLF1. We specifically delivered the protein (BZLF1) to dendritic cells (DCs) through its endocytic receptor DEC205. Antigen-loaded DCs were co-cultured with autologous peripheral blood mononuclear cells (PBMCs). To test the EBV vaccine in-vivo, we utilised a human-murine chimeric model of EBV-driven lymphoproliferative disease (EBV-LPD). Severe combined immune deficient (SCID) mice were engrafted with PBMCs from EBV+ donors. Mice were immunised with DCs loaded with DEC205-BZLF1 or DEC205-control at the time of PBMC transplant and received booster doses at day 14 and 28. Cell from the co-culture and human cells recovered from mouse spleen were analysed by mass cytometry and by flow cytometry HLA-tetramer assay.

RESULTS DEC205-BZLF1 co-cultures showed increased expansion of EBV-specific cytotoxic T lymphocytes (CTLs) (p-value: 0.0002) capable of abundant IFNγ production and potent cytotoxicity against autologous tumour. This vaccine significantly improved survival in vaccinated mice (p-value: 0.035). Splenocytes from mice in the DEC205-BZLF1 vaccination group revealed higher responsiveness to autologous targets compared to controls as determined by ELISpot.

CONCLUSIONS These results further support pre-clinical and clinical development of vaccine approaches utilising the BZLF1 protein as an immunogen to harness adaptive cellular responses to prevent EBV-associated LPD in vulnerable patient populations.

Ali I

P191 | LA PRISE EN CHARGE DES PATIENTS EN FIN DE VIE PAR LE PERSONNEL INFIRMIER CAS DE L'INSTITUT NATIONAL D'ONCOLOGIE SIDI MOHAMED BEN ABDALLAH DE RABAT

Ali I[1]

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

L'objectif de cette recherche est de décrire la prise en charge des patients en fin de vie par les infirmiers à l'institut national d'oncologie. Les infirmiers ne donnent pas d'importance à la prise en charge globale, ils intéressent au soins techniques au dépend des soins relationnels et éducatifs. Cette recherche a été entamée par élaboration d'un cadre de référence, qui est conceptuel fournissant les différentes dimensions de la prise en charge des patients en fin de vie, se basant sur le caring, le modèle de soins de soutiens et la recensions des écrits. L'enquête a été menée auprès de 25 infirmiers travaillant au niveau de cinq services à l'INO, choisis par choix raisonné, avec un taux de participation de 84%. Les participants ont répondu à un questionnaire visant à décrire la PEC des patients en fin de vie. L'analyse des données révèle que ; a) les infirmiers sont en majorité des IDE mais ne font pas de planification et ni de projets de soins au niveau des unités, b) 43% n'organisent pas de séances éducatives, c) les besoins du patients ne sont pas identifiés par les infirmiers par plus de deux tiers et d) la majorité ne prennent pas en charge la phase terminale et d'agonie qui est une phase très vulnérable. Ceci explique par le fait que la prise en charge des patients en fin de vie nécessite une approche pluridisciplinaire où les compétences de chaque intervenant sont reconnues. Enfin des propositions de recommandations pour la pratique infirmière sont proposées pour une amélioration de la prise en charge des patients en fin de vie.

Aliyu U
BREAST CANCER RADIOTHERAPY AMONG ELDERLY PATIENT IN NIGERIA

Aliyu U[1]
[1]Usmanu Danfodiyo University Teaching Hospital

MEETING ROOM 3

Wednesday
6 November 2019
10:30–11:30

BACKGROUND The incidence of breast cancer rises dramatically with age, the single most important risk factor for developing cancer. Large proportion of all new breast cancer diagnoses and the majority of breast cancer deaths occur in women 65 years and older. A large number of studies in the literature reported the benefits of post mastectomy radiotherapy in both the young and elderly breast cancer patients. Limited numbers of radiotherapy machines and practice of conventional fractionation schedule which is long in duration makes radiotherapy access more difficult especially among the eldely. Hypofractionated radiotherapy offers alternative option with shorter duration and comparable side effects and outcome to conventional fractionation.

METHODS Records of elderly patients treated with radiotherapy in the department of radiotherapy and oncology from January 2017 to January 2019 were evaluated. Post mastectomy radiotherapy was given at a dose of 45 Gy in 16 fractions of 2.81Gy over 16 days to the chest wall and the draining regional lymph nodes. Our primary end point was freedom from any grade 3 or higher toxicities and disease free survival at 2 years.

RESULTS Eighty three 83 elderly women with stages II and III breast were recruited. Majority had invasive ductal carcinoma not otherwise specific (78.3). More than half of the patients (69.9%) had the disease located in the right breast. After a follow up of 24 months, there were no grade 3 or 4 toxities. 4 and 6 patients had grade 2 skin and Nausea and vomiting toxicities respective. Seventy nine (95.2%) were disease free at 24 months while 2 (2.4%) patients each had local and distance metastasis respectively.

CONCLUSION Hypofractionated radiotherapy in the elderly breast cancer patient proved to be comparable to conventional radiotherapy in terms of toxicities and outcome in sub-Saharan Africa.

Allodji R

LB031 | RISK OF SUBSEQUENT PRIMARY LEUKAEMIAS AMONG 69,460 FIVE-YEAR SURVIVORS OF CHILDHOOD CANCER DIAGNOSED FROM 1940 TO 2008 IN EUROPE: A COHORT STUDY WITHIN PANCARESURFUP

Allodji R[1], Hawkins M[2], Vathaire F[1], Reulen R[2]

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Survivors of childhood cancers are at risk of developing subsequent primary leukaemias (SPLs), but the long-term risks beyond 20 years of treatment are still unclear. We investigated the risk of SPLs in five-year childhood cancer survivors using a large-scale pan-European (PanCareSurFup) cohort and evaluated variations in the risk by cancer and demographic factors.

METHODS This largest-ever assembled cohort comprises 69,460 five-year childhood cancer survivors from 12 European countries. Standardised incidence ratios (SIRs) and absolute excess risks (AERs) were calculated.

RESULTS One hundred fifteen survivors developed an SPL including 86 myeloid leukaemias (subsequent primary myeloid leukaemias [SPMLs]), 17 lymphoid leukaemias and 12 other types of leukaemias; of these SPLs, 31 (27%) occurred beyond 20 years from the first childhood cancer diagnosis. Compared with the general population, childhood cancer survivors had a fourfold increased risk (SIR = 3.7, 95% confidence interval [CI]: 3.1 to 4.5) of developing leukaemia, and eight leukaemias per 100,000 person-years (AER = 7.5, 95% CI: 6.0 to 9.2) occurred in excess of that expected. The risks remained significantly elevated beyond 20 years from the first primary malignancy (SIR = 2.4, 95% CI: 1.6 to 3.4). Overall, the risk ratio for SPML (SIR = 5.8, 95% CI: 4.6 to 7.1) was higher than that for other SPLs.

CONCLUSIONS We demonstrate that beyond 20 years after childhood cancer diagnosis, survivors experience an increased risk for SPLs compared with that expected from the general population. Our findings highlight the need for awareness by survivors and their healthcare providers for potential risk related to SPL.

Aluko J

P192 | UTILISATION PATTERN OF PROSTATE CANCER SCREENING SERVICES AMONG WORKERS OF A TERTIARY HEALTHCARE FACILITY IN NIGERIA

Aluko J[1]

[1]University of Ilorin, [2]University College Hospital, [3]University of Medical Science, [4]Igbinedon University

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE Prostate cancer remains the most commonly diagnosed cancer and the second leading cause of cancer death in men, thus constituting a major public health issue worldwide. It is observed that prostate cancer screening seeking behaviour among Nigerian men is worrisome though there is dearth of empirical information to support this. On this premise this study was designed to assess the pattern of utilisation of prostate cancer screening services among male workers in one of the Nigerian tertiary healthcare facilities.

METHODS This cross-sectional descriptive study utilised a structured questionnaire to elicit information form purposively selected 250 male workers. The data were analysed descriptively and inferentially using the Statistical Package for Social Science (SPSS) version 21.0. The results were presented in tables and charts.

RESULTS The mean age $\pm$ standard deviation of the male workers was 41 ± 12.5 years. Close to 30% of the male workers had never heard of prostate cancer screening, while over 50% exhibited inadequate knowledge of the screening as the time of data collection. Moreover, approximately 40% expressed negative attitude towards utilisation of prostate cancer screening services, and therefore had never utilised it. Besides, the male workers with fewer years of work experience exhibited better attitude towards the use of prostate cancer screening than their colleagues who had more years of work experience; p-value < 0.05.

CONCLUSION The finding shows that, akin to non-healthcare workers, the health workers may need motivation and mobilisation programmes to improve their health-seeking behaviours regarding prostate cancer screening.

Amodo F

LB032 | PERFIL CLÍNICO EPIDEMIOLÓGICO DO CANCRO NO SERVIÇO DE HEMATO-ONCOLOGIA PEDIÁTRICA DO HOSPITAL CENTRAL DE MAPUTO

Amodo F[1]
[1]Hospital Central Maputo

NEW HALL

Thursday
7 November 2019
16:30–18:00

No mundo todo cerca de 200.000 crianças e adolescentes são diagnosticadas com cancro por ano e destas cerca de 80% vivem nos países em desenvolvimento das quais 90% morrem. A incidência do cancro infantil em Moçambique é deconhecida à semelhança de muitos outros países de África; a fraca qualidade de registo de base populacional limita o conhecimento da epidemiologia do cancro na idade pediátrica nestes países.

OBJECTIVO avaliar as características Clínico Epidemiológicas de crianças e adolescentes com cancro admitidas no Serviço Hemato-Oncologia Pediátrica do Hospital Central de Maputo de 2011–2015.

METODOLOGIA O presente trabalho é um estudo do tipo transversal onde foi feita análise retrospectiva de 403 processos clínicos de pacientes admitidas na Unidade de Hemato-Oncologia Pediátrica do Hospital Central de Maputo entre 1 de janeiro de 2011 a 31 de dezembro de 2015, foram recolhidos dados como idade, sexo, proveniência, tipo de cancro, estadiamento e resposta terapêutica.

RESULTADOS Neste periodo de 5 anos (2011–2015) das 403 crianças e adolesecentes admitidas com diagnóstico de cancro 57% eram do sexo masculino, 58% provenientes da cidade e Província de Maputo, seguida de Provincia de Inhambane com 15%, os resultados deste estudo mostram uma prevalência da leucemia em 21%, Sarcoma de Kaposi 17%, Linfoma 17%, retinoblastoma 12%, tumor de wilms 11%; as Taxas comulativas de sobrevivência, mortalidade e de abandono neste periodo foram de 50%, 37% e 10% respectivamente.

CONCLUSÃO A Leucemia, o Sarcoma de Kaposi, o Linfoma, Tumor de Wilms e o Retinoblastoma são as principais causas de Neopalsia na idade Pediátrica no Hospital Central de Maputo, a maior parte dos nossos pacientes são provenientes da cidade e Provincia de Maputo, seguida de Província de Inhambane.

Amado V

LB033 | TUMOR DE WILMS EM MOCAMBIQUE CARACTERIZACAO CLINICO-EXPERIENCIA EM 7 ANOS

Amado V[1], Cachomba Y[1], Taela A[1], Rocha M[1], Amodo F[1]
[1]Hospital Central de Maputo

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUÇÃO Tumor de Wilms ou nefroblastoma corresponde a 95% de todos os tumores pediátricos renais,e é o segundo tumor abdominal solido mais comum e representa 6% dos tumores malignos pediátricos. Em Moçambique constituiu o quarto tumor mais frequente em crianças dos 0 aos a4 anos de idade

OBJECTIVO Caracterização clinica de crianças com tumor de Wilms, atendidas no Serviço de Hemato – oncológica de Pediátrica do Hospital Central de Maputo.

METODOLOGIA Análise retrospetiva de 112 casos de Tumor de wilms recebidos, no Serviço de Hemato – oncologia Pediátrica do Hospital Central de Maputo. Durante os últimos 7 anos apartir 1 de Janeiro de 2011 a 31 de Dezembro de 2018. Foram avaliados os dados demográficos (sexo, grupo etário), proveniência, estadiamento, resposta ao tratamento instituído e sobrevida.

Resultado: 58% dos pacientes do sexo masculino com 58% dos casos, são mais frequentes nos primeiros anos de vida (a faixa etária 0–4 anos teve 69% dos casos), a maioria dos pacientes 45% provem da cidade de Maputo, seguida de Maputo Provincia com 20% dos casos. Massa abdominal foi a forma de apresentação em 98% dos casos. A grande maioria dos pacientes(50%) apresentaram se no estadio I e 38% no estadioII. 86% dos pacientes fizeram pre quimioterapia. Taxa de sobrevivência apos 5 anos foi de 63%.

CONCLUSÃO a apresentação do tumor de wilms em Moçambique assemelha se a outros países de Africa subsahariana, é necessário desenhar se melhor protocolos de tratamento adequados a realidade Africana, apresentação tardia, massas gigantes, melhorar a abordagem multidisciplinar.

Nakaganda A, Amuge C

P105 | ESTABLISHING A POPULATION-BASED CANCER REGISTRY IN RURAL SETTING: EXPERIENCES FROM MAYUGE CANCER REGISTRY

Nakaganda A[1], Matu M[2], **Amuge C**[1], Kwagonza L[1]
[1]Uganda Cancer Institute, [2]East Central South Africa — Health Community

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE In Uganda, over 32,000 new cancer cases and 21,000 cancer related deaths occurred in 2018. Currently, 56,238 people are living with cancer. Late presentation, limited access to diagnosis and treatment services contribute to the high death rate. The Kampala Cancer Registry is one of the oldest population-based cancer registries in Africa dating back in 1951. Due to its central location and low population coverage, there was need to document the burden of cancer in other geographical areas that have significantly different risk patterns and population dynamics. The Mayuge Cancer Registry (MCR) was established to address this gap. We examined the feasibility of establishing a cancer registry in a rural setting.

METHOD With financial and technical support from World Bank Trust Fund Regional Program for cancer registration through ECSA-HC, MCR was prioritised. MCR is located in Eastern Uganda with a geographical coverage of 2,340312 people from 7 districts. The Uganda Cancer Institute (UCI) oversees cancer registry activities and provides the technical aspects of the project. UCI works hand in hand with the local government that provides human resources and infrastructure. The major inputs include; a) Registry staff training, b) knowledge exchange workshops, c) Equipment's: ICT and Furniture.

RESULTS Data collection is on-going. We have retrospectively (2015–2017) collected 439 cancer cases; 72% (316/439) of cases are females, 46% (202/439) were in age-group 30–49. Among males, Prostate 14%, (18/123), Kaposi' s Sarcoma 23% (28/123) and Lymphomas 7% (9/123) while among females cervix 58%,(183/316), Breast; 7%,(22/316) Kaposi's Sarcoma; 3% (11/236); are most common cancers.

CONCLUSION Cancer registry in this rural setting has been initiated. In addition, MCR has acquired ICT equipment,furniture and competent human resource that are essential for Cancer registration,with the experience of knowledge exchange and networking with other cancer registries cross the East African community has been the greatest achievement and good practice.

Andrade V, Lorenzoni C

P058 | TRAINING NURSES TO PERFORM CERVICAL CANCER PREVENTION CLINICAL RESEARCH IN MOZAMBIQUE

Andrade V[1], Pantano N[1], Chalyamba M[2], Macaringue R[2], dos Santos B[2], Manhica S[2], **Lorenzoni C**[3,4]
[1]Barretos Cancer Hospital, [2]Hospital Geral e Centro de Saúde de Mavalane, [3]Universidade Eduardo Mondlane, [4]Ministerio da Saude de Moçambique

NEW HALL

Tuesday
5 November 2019
18:15–20:00

Nursing is an essential component for conducting a clinical research.

OBJECTIVE To train nurses at the General Hospital de Mavalane to conduct a clinical research study requiring collection of cervical samples for HPV testing.

METHODS A research partnership between MD Anderson Cancer Center in the USA, Barretos Cancer Hospital and other institutions in Brazil, the Mozambique Ministry of Health and Hospital Geral e Centro de Saúde de Mavalane, Maputo, Mozambique was created to conduct the study. Given the common language of Portuguese, research nurses and laboratory experts from Brazil travelled to Mozambique to train a team of nurses in subject recruitment, informed consent, sample collection, data management, research subjects care and health education delivery.

RESULTS The 5-day workshop consisted of training in conduct of research, ethics and technical skills necessary to implement cervical cancer prevention research in a low resource setting. The nurses received guidance and feedback in consistency and analysis of data collected and the quality of samples. A team of 15 professionals were supervised in hands on training of all steps of the research protocol during the enrolment of the first 26 research subjects. After this, the data for the next 424 enrolled patients were evaluated by visits by the Brazilian team every three months. From the data management findings, one screening failure was identified. Video conferences were held twice a month to follow up and review progress and the theoretical practical training was repeated each three months in the five visits. After the training the nurses had a higher level of confidence in collection of research samples and a greater knowledge regarding ethical and clinical practices in research.

CONCLUSIONS This training may provide support to enable other nurses to conduct research and care for patients participating in a research study in Mozambique. The trained nurses will multiply the knowledge. This can be a first step to the team engagement of evidence-based practice.

Antonio J

P154 | CARACTERÍSTICAS CLÍNICAS E HISTOPATOLÓGICAS DE PACIENTES COM CANCRO DE COLO ÚTERO NO HOSPITAL CENTRAL DE MAPUTO

Antonio J[1], Bata G[1], Macamo M[1], Tulsidas S[1]
[1]Hospital Central de Maputo

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVO Contribuir com conhecimento de diferentes variáveis clinicas e histopatológicas de cancro colo de útero no nosso meio.

MÉTODO Realizamos uma investigação retrospectiva descritiva e transversal de 150 pacientes portadores de cancro de colo de útero em hospital central de Maputo diagnosticados no ano 2018.

RESULTADOS O grupo de idades de 40 a 50 anos foi o mais numeroso com 26,7% total de pacientes, e idades extremos (menor que 20 anos e maior que 80 anos) não estiveram presentes na amostra. Distribuição por estádio clinico o mais frequentes foi IIIB com 31% de total de pacientes, seguidos de estádio IIB com total 27%,existem um predomínio de estádios de doença localmente avançado, que não permitiu tratamento cirúrgico. Pacientes com serologia negativa por VIH corresponde 52,7% e com serologia positiva por VIH foi de 47.3%. O carcinoma epidermóide representaram 91.9% de total de casos o que coincidi com literatura médica revisado. Grande maioria de pacientes tiveram 7 ou mais partos, sendo a multiparidade um factor risco para esta doença.

CONCLUSÃO O carcinoma de colo útero em Moçambique tem alta incidência favorecida por alta prevalência de VIH, ausência de controlo de paridade e deficiência de programa de diagnóstico precoce e prevenção. Palavra chaves: cancro de colo de útero, VIH, estadiamento clínico, tipo histopatológico.

Anyanful A

P106 | LIGHTING UP THE BREAST: BREAST-I TO THE RESCUE FOR EARLY DETECTION IN AFRICA AND BEYOND

Ghartey F[1], **Anyanful A**[1], Watmough D[2]
[1]University of Cape Coast, [2]Highland Innovation Centre

NEW HALL

Tuesday
5 November 2019
18:15–20:00

What is the solution to breast cancer in sub-Saharan African, where there is low awareness and no mass screening programs, where peak incidences occur in the 30s, where most presentations are in advanced metastatic states, thereby resulting in high death rate? Mammography is not the answer since they are restricted to urban hospitals and are unaffordable. Most importantly, mammograms are not recommended for women below 40 years which are the most crucial years for screening sub-Saharan women. With breast cancer penetrance of 0.76% in the population, of which 30% are below 35 years, definitely, a reliable, cheaper, available and acceptable screening method is needed in addition to Clinical Breast Examination (CBE). The development of Breast-i, a hand-held optical device designed to detect angiogenesis will be the needed solution for breast screening. Breast-i illuminates the breast with non-radiation red light and degree of light absorbed by haemoglobin depends on blood cells per unit volume and neoplastic tumours are seen as dark spots. Screening over 3000 mostly young females, Breast-i picks suspicious lesions missed by CBE and detected 22 more cases of which 7 had angiogenesis but were not palpable and 15 were missed by CBE due to large breast size. Breast-i, by showing that 35% of the cases were below 45 years confirmed the worrisome sub-region observation. In addition, Breast-i positives always warrant further evaluation as it is potentially cancerous. The presentation will show all the data we have with respect to Breast-i and why we believe that its angiogenetic sensitivity, availability, affordability and acceptability even in strict traditional communities will be the device to early detect breast cancer in the region for increasing treatment success. Our results also recommend adjusting breast cancer screening to early twenties for women and the low cost involved, mean African governments can sponsor nation-wide screening programs and establish national breast cancer registries for control and treatment guidelines

Anyango R

P107 | THE ASSOCIATION BETWEEN NATIONAL HEALTH INSURANCE COVERAGE AND OUTCOMES AMONG CANCER PATIENTS IN WESTERN KENYA

Anyango R[1], Kisilu N[2], Asirwa C[1,2]
[1]Moi University School of Medicine, [2]Academic Model Providing Access to Healthcare

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Patients without health insurance are less likely than insured patients to be screened and treated after cancer is diagnosed.

RESEARCH QUESTION In this study we addressed the following questions: Do insured patients covered by National Hospital Insurance Fund have less advanced stages of cancer than uninsured patients at diagnosis? And, for each stage of disease, do uninsured patients have worse outcomes compared to insured patients?

METHODS Our target population consisted of 359 patients enrolled at cancer programmes at the Chandaria Center for Chronic diseases. The ages of the patients ranged from 23 to 65 years of age. We compared the stage of disease and stage-specific survival among patients with National Hospital insurance Fund (NHIF) with patients without health insurance. We performed a regression analysis to control for age, race, marital status, household income, coexisting diagnoses, and disease stage to estimate the adjusted risk of death for these groups,

RESULTS Uninsured patients and presented with more advanced disease than insured patients (P<0.001 and P = 0.01, respectively). Survival was worse for uninsured patients than for insured patients with local disease (P<0.001 for both comparisons) and regional disease (P<0.001 for both comparisons). The adjusted risk of death was 56 % higher (95% CI 20;84%) for uninsured patients.

CONCLUSIONS The more frequent adverse outcomes of cancer among patients without health insurance suggest that such insurance would improve access to screening and optimal therapy.

Anyango R

P394 | DIAGNOSTIC ACCURACY OF [-2]PRO-PSA (P2PSA) VERSUS GLEASON SCORE AND PROSTATE HEALTH INDEX (PHI) VERSUS GLEASON SCORE FOR THE DETERMINATION OF AGGRESSIVE PROSTATE CANCER: A SYSTEMATIC REVIEW

Anyango R[1], Mwita C[2], Mugalo E[2], Ojuando J[2]
[1]Afya Research Africa, [2]Moi University School of Medicine

NEW HALL

Thursday
7 November 2019
16:30–18:00

REVIEW QUESTION To determine the diagnostic accuracy of [-2]ProPSA (p2PSA) and Prostate Health Index (PHI) compared to the Gleason score in determining the aggressiveness of prostate cancer.

INTRODUCTION Prostate cancer (PCa) is the most commonly diagnosed cancer in men. However, the utility of currently available biomarkers for determining the aggressive form of disease remains unknown. This review sought to determine the diagnostic accuracy of two new biomarkers in determining the aggressive form of prostate cancer.

INCLUSION CRITERIA Diagnostic accuracy studies that enrolled men with histologically confirmed prostate cancer in which PHI and p2PSA were assessed in comparison to Gleason score for the determination of aggressive prostate cancer.

METHODS A three step search strategy was utilised to identify both published and unpublished studies in the English language. Databases were searched from inception to January 2019. Study selection, critical appraisal, data extraction and data synthesis were done according to the approach recommended by the Joanna Briggs Institute.

RESULTS A total of 12 studies (n=7,910) that recruited men with aggressive PCa were considered in this review. Majority of included subjects had a total prostate specific antigen (PSA) level of 2–10ng/ml. The sensitivity of PHI ranged from 67–97% while specificity ranged from 6–64%. At a PHI threshold of 25 and below, pooled sensitivity was 97% (95% confidence interval (CI) 95–98%) and specificity was 10% (95% CI 6–16%). At a PHI threshold of between 26 and 35, pooled sensitivity was 87% (95 % CI 81–91%) and specificity was 45% (95% CI 39–50%). At a PHI threshold of 36 and above pooled sensitivity was 72% (95% CI 64–79%) and specificity was 74% (95% CI 68–80%). Only one study assessed p2PSA. Sensitivity ranged from 80–95% and specificity ranged from 9.9–27.9% with increasing threshold values from 7.9–10.9ng/ml.

CONCLUSIONS Overall, both PHI and p2PSA have acceptable accuracy for the determination of aggressive PCa. However, the inverse relationship between sensitivity and specificity makes it difficult to determine an optimum cut off value for positivity. Further, both tests demonstrate high false positive rates that may lead to unnecessary intervention.

Arhinful C

P002 | OPTIMISING BREAST CANCER CARE IN A LOW-RESOURCED COMMUNITY: A CASE STUDY OF VRA HOSPITAL, AKOSOMBO

Arhinful C[1], Katz M[1], Gutnik L[1], Price R[1]
[1]Volta River Authority

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION Breast cancer is the primary cause of cancer death among women globally with most cases occurring in low resourced settings. The disproportionate burden of breast cancer is compounded by poor survival. While most high-income countries have five-year survival rates greater than 85%, no sub-Saharan countries have rates that exceed 60%. In the Krobo-Akwamu Traditional area, Ghana several barriers hamper access to timely breast cancer care: delayed presentation due to misperceptions about breast cancer and treatment from religious/traditional healers, cost, distance to facility and overcrowding of teaching hospitals. Little is known about the epidemiology, morbidity, and mortality of breast cancer in this area.

STRATEGY The VRA Hospital in Akosombo serves the Krobo-Akwamu Traditional area and is the only hospital that offers specialist care. In 2015 a team of dedicated staff came together to form a Breast Care Centre. Through collaboration with multiple organisations, including Motec-Life UK, Korle Bu Teaching Hospital and the University of Utah Center for Global Surgery, several platforms and systems were created from screening and early detection to providing clinical care including:

- Sustained breast cancer awareness campaigns
- Free, weekly walk-in clinical breast (examinations) screenings
- Expanded care including surgery, chemotherapy, and hormonal therapy
- Electronic reporting of pathology
- Electronic breast cancer database
- Training workshops for health staff to promote early disease detection

RESULTS
- People reached directly with awareness campaigns 45 700
- Clinical breast screening 1524
- Breast clinic attendance.. 750
- Breast biopsies 154
- Confirmed cancer cases 75
- Total mastectomies... 48
- Completed chemotherapies 26
- Breast reconstruction 2

CONCLUSIONS The VRA Hospital Breast Care Centre has successfully expanded breast cancer care in a resource-limited environment. Ongoing research and collaboration will continue to support and determine the impact of expanded capacity.

CANCER CONTROL IN THE PALOP REGION

Armando A
STATUS AND PRIORITIES FOR NCCP DEVELOPMENT IN ANGOLA

Armando A[1], Miguel F[2], Baião P[1], Severino F[1], Sales I[2], Libongue A[1]
[1]Ministry of Health of Angola, [2]Angolan Cancer Control Institute

MEETING ROOM 4

Friday
8 November 2019
10:30–12:00

O presente documento refere-se ao Plano Estratégico de Prevenção e Controlo do Cancro (PNPCC) em Angola. O documento apresenta a situação do cancro em Angola, a justificativa da para a elaboração do documento, a visão, missão e os objectivos estratégicos nas (5) grandes áreas de atenção em oncologia, nomeadamente:

- Prevenção – educação da população sobre os factores de riscos associados ao desenvolvimento do cancro e reduzir a sua exposição, protecção específica com vacinação da população alvo contra o Vírus das Hepatites B, C e do Vírus Papiloma Humano (HPV).
- Detecção precoce do cancro – rastreio do cancro de mama e do colo uterino da pele nos albinos;
- Diagnóstico precoce e tratamento – educação da saúde da população sobre os sinais e sintomas das doenças neoplásicas mais incidentes e o aumento da disponibilidade e acesso ao diagnóstico e tratamento oncológico multidisplinar dos pacientes portadores de neoplasias malígnas;
- Cuidados paliativos - disponibilidade e acesso aos analgésicos bem como assistência psicológica e espiritual dos paciente em estadios avançados da doença e sua famílias;
- Ensino, Pesquisa e Vigilância Epidemiológica – formação técnica e pós-graduada em Oncologia; pesquisa epidemiológica e clínica em Oncologia e implantação de Registo de Cancro de Base Populacional (Base de Dados Nacional do Registo do Cancro) para determinar a magnitude do cancro no país.

A presente documento foi elaborada por um grupo de especialistas em Oncologia, Gestão em Saúde e em Saúde Pública com o objectivo de ser o instrumento que va orientar todas asa« actvidades preventivas e assitenciais para o controlo do cancro em Angola para a redução do impacto negativo que a doença provoca na população.

Asangbeh S

P327 | INDICATORS AND TARGETS FOR CERVICAL CANCER SCREENING PROGRAMS IN SOUTHERN AFRICA: A POLICY REVIEW

Asangbeh S[1], Davidovic M[1], Taghavi K[1], Bohlius J[1]
[1]University of Bern

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To identify performance and outcome indicators and targets for screening cervical pre-cancerous lesions in Southern African countries with the highest HIV prevalence ($\geq 10\%$).

METHODS We identified policies through website searches on https://www.iccp-portal.org/map and expert consultation. We reviewed them and examined consistency in performance and outcome indicators and targets for screening of precancerous lesions in nine Southern African countries: Lesotho (LS), Mozambique (MZ), South Africa (ZA), Swaziland (SZ), Zimbabwe (ZW), Zambia (ZM), Botswana (BW), Namibia (NA) and Malawi (MW).

RESULTS All countries reviewed had cancer control policies (9/9). Less than half (4/9) had standalone policies for cervical cancer (CC) prevention. Screening coverage was a common performance indicator across policy documents except for ZW and SW, with six of them defining 80% targets for the general population (LS, MZ, ZM, MW, NA, BW). Only two policies (LS and ZA) specified screening intervals for women living with HIV although specific targets for this population were lacking. Percentage of women with a positive screen was highlighted as a performance indicator in three policies (LS, MZ and MW), and disaggregated by HIV status in two (MZ, LS). Treatment rate of screen-positive women was a performance indicator mentioned in five policy documents (LS, MZ, ZM, MW, ZA). Only three documents (LS, MZ, ZA) included definitions for intervals to re-screening women treated for precancerous lesions, however, indicators and targets were generally lacking. CC incidence and mortality were common outcome indicators across policies and five policies clearly stated specific targets (LS, ZM, MW, ZA, BW).

CONCLUSIONS This review highlights variability in monitoring indicators and targets across these countries. Despite the high HIV prevalence, HIV-specific indicators were absent in most policy documents. There is need for harmonised monitoring indicators across similar settings to permit interoperability of data systems for comprehensive assessment of programs, ideally disaggregated by HIV-status.

Asige F

P285 | BENCHMARKING OF AN IMRT TREATMENT PLANNING AND DELIVERY SYSTEM

Asige F[1], Mbewe J[1]
[1]The Nairobi Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The purpose of this study was to evaluate the performance of a newly commissioned IMRT treatment planning and delivery systems against the results of the American Association of Medical Physicists in Medicine (AAPM) Task Group 119.

METHOD Structure contained in the DICOM-RT set developed by the Task Group were transferred onto a CT image set of our local phantom. IMRT plans were created with beam arrangements and dose-volume constraints stipulated in the TG-119 report. Field-by-field fluence measurement of delivered dose distributions was performed on an Electronic Portal Imaging Device, while in-phantom point-doses at specific locations were measured with a small-volume ionisation chamber at specific points in high and low dose regions. Gamma evaluation with passing criteria of 3%/3mm – reporting the percentage of points with gamma $\leq$ 1, was done using a Portal Dosimetry software package.

RESULTS The mean deviations from point-dose measurements in the high and low dose regions were 0.031Gy (standard deviation 0.020) and 0.025Gy (standard deviation 0.018) respectively. The corresponding confidence limits were 0.0702 and 0.060 respectively for high and low dose regions. The average pass rate from the gamma evaluation was 95% (standard deviation 0.017) with confidence limit of 3.61.

CONCLUSION Point dose measurements and gamma evaluation were better than results reported by the AAPM TG-119 task group, and thus our IMRT system exceeds the minimum performance requirements recommended by the Task Group.

Asiimwe P

P003 | PHYSICAL ACTIVITY EVENTS: AN AVENUE FOR AWARENESS, ADVOCACY AND RESOURCE MOBILISATION

Asiimwe P[1], Ebusu P[1], Olodi D[1]
[1]Uganda Cancer Society

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Physical inactivity is one of the known modifiable risk factors associated with cancer. Results from the Uganda NCD risk factor survey (2014) showed that Ugandans are becoming increasingly physically inactive especially those living in urban areas. Physical inactivity is known to contribute cancer of the Breast, Oesophagus, Endometrium, and the Colon. Uganda Cancer Society (UCS) held a mass dance fitness event dubbed Sukuma aimed at promoting improved lifestyles as well as providing an avenue for cancer awareness, advocacy and resource mobilisation.

METHODS UCS partnered with Uganda Cancer Institute, Ministry of Health, Kampala Capital City Council Authority, Uganda Police Force and a professional fitness organisation. The concept was in line with the recently launched National Day of Physical Activity, a national campaign to raise awareness on the growing burden of NCDs in Uganda. The event was to last three hours including a brief talk on the importance of physical activity. Publicity was through social media, peer to peer referral, media press briefing and posters. Resource Mobilisation was through sale of dance-kits and the media present was a platform to promote the Uganda's treatment for all advocacy program.

RESULTS The event was attended by over 500 people with high media coverage evidenced in talk shows, interviews and news airing on national TV. Sell of kits amounted to 9.6 million Uganda Shillings alone excluding other forms of support and these funds were dedicated to supporting activities of UCS such as World Cancer Day. Social media prior during and after this event was high with posts having over 1700 reaches minus boosting.

CONCLUSION The event was successful given the intended outcomes of cancer awareness; advocacy and resource mobilisation were achieved. Further still, the presence of survivors was a point of inspiration prompting those in attendance to sign up for fitness programs.

Asombang A

FEASIBILITY OF ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY FOR MANAGEMENT OF MALIGNANT BILIARY OBSTRUCTION IN NIGERIA: A SPECIALISED INTERVENTION IN RESOURCE LIMITED SETTING, OUR 1-YEAR EXPERIENCE

Asombang A[1], Aderounmu W[2], Brissett G[3], Owojuyigbe A[2], Omisore A[2], Alatise O[2]
[1]Warren Alpert Med. School of Brown Univ., [2]Obafemi Awolowo Univ., [3]Beth Israel Deaconess Med. Center

MEETING ROOM 4

**Thursday
7 November 2019
13:30–14:30**

OBJECTIVE More than 400,000 annual endoscopic retrograde cholangiopancreatography (ERCP) are performed in the US. In Nigeria, population 190 million, there are 2 gastroenterologists performing ERCPs, with approximately 100 over the past 15 years. Our objective is to assess the clinical outcomes and feasibility of performing an ERCP at a tertiary centre in Nigeria.

METHOD Patient referral requests were sent to the members of the Society of Gastroenterology and Hepatology (SOGHIN) via digital media using What's app. ERCPs were scheduled every 4 months over one year, each session 5 days. A multidisciplinary meeting was held the day prior to each session week and attended by gastroenterologists, surgeons, anaesthesiologist, radiologist and nurses. Patients were admitted at least the day before their scheduled procedure and monitored until discharge. A history and physical examination were performed. We prospectively collected demographic data (age, gender, place of residence), clinical presentation, imaging modality of diagnosis (Abdominal ultrasound, CT or MRI), laboratory data (fractionated bilirubin, AST, ALT, alkaline phosphatase, HIV, HBV DNA, Hepatitis C RNA) and clinical outcomes at 24 hours post ERCP.

RESULTS Total of 94 patients were referred, 75 procedures performed (53 ERCPS, 22 EGDs), 20 procedures not performed due to lack of time or not indicated. There was an increase in number of referrals over the year from 17 patients at week 1 to 30 at week 4. Majority of patients were referred from external sites (74/94, 78 %), the furthest referral site was almost 900 kilometres away. There were 38 females (51%), age range 8 to 83 years, mean 52 years. Clinical outcomes at 24 hours post procedure revealed: 2/75 (2 %) died (aetiology acute renal insufficiency), 4/75 (5%) had mild pancreatitis.

CONCLUSION ERCP is feasible and safe in Nigeria. Awareness amongst healthcare providers to the available procedure resulted in increased patient referral.

Asombang A

P204 | DESCRIPTIVE ANALYSIS OF OESOPHAGEAL CANCER IN ZAMBIA USING THE CANCER DISEASE HOSPITAL DATABASE: YOUNG AGE, LATE STAGE AT PRESENTATION

Asombang A[1], Kasongo N[2], Muyutu J[2], Montiero J[3], Chipaila J[4], Banda L[5]
[1]Warren Alpert Medical School of Brown University, [2]Copperbelt University School of Medicine, [3]Brown University, [4]University Teaching Hospital, [5]Cancer Disease Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE There is limited published data on oesophageal cancer in Zambia and none evaluating patients at the only in-country Cancer Disease Hospital (CDH). The aim of our study is to evaluate the demographics and clinicopathologic features of patients presenting with oesophageal cancer at time of diagnosis.

METHODS A retrospective analysis of the CDH database was conducted on patients diagnosed with oesophageal cancer from time of CDH inception (2007) to December 2018. Patients were identified using the search terms "esophageal cancer" "Oesophageal cancer" "cancer of esophagus" "cancer of oesophagus". Medical records were manually retrieved using the medical record numbers and reviewed. The following were extracted: demographics (age at presentation, gender, residence, occupation), clinicopathologic features (symptoms at presentation, mode of diagnosis, stage, histologic type) and mode of treatment (chemotherapy, surgery, palliation). A coding sheet was created a priori, data analysed using SAS.

RESULTS A total of 396 medical records were identified, 306 manually retrieved, 90 classified as missing. Of the 306 reviewed, 26 files were excluded for being other organ cancers and 2 for containing no details. The final analysis included 278 medical charts, 66% were males, mean age was 55 years, 27% were in 40–49 age range, 56 % from Lusaka, the location of CDH. The age-standardised incidence is 5.5 per 100 000 people (95% CI, 4.3–6.6). The most common symptom was dysphagia (83 %), 97% diagnosed endoscopically, 90% squamous cell carcinoma, followed by adenocarcinoma (8.3%), 65 % received treatment. One hundred twenty-four charts had missing staging data. Of the 154 patients, 98 (35 %) were diagnosed at stage 4, 33 % were between 40 and 49 years.

CONCLUSION Patients presenting with oesophageal cancer are predominantly between the age of 40–49, males and late stage at time of diagnosis. Robust prospective research and improved data recording is warranted.

GROWING AND DEVELOPING PSYCHOSOCIAL ONCOLOGY PROGRAMS IN AFRICA: CHALLENGES AND OPPORTUNITIES

Asuzu C

CHALLENGES AND OPPORTUNITIES FOR PSYCHOSOCIAL ONCOLOGY IN AFRICA AND THE ROLE OF IPOS FEDERATED APOA

Asuzu C[1]
[1]University of Ibadan

MEETING ROOM 2

Wednesday
6 November 2019
08:30–10:00

Psycho-oncology is the psychosocial management of cancer patients in order to reduce stress, enhance their coping strategies and improve their quality of lives along the cancer care continuum. The field started in Nigeria in the early nineties through the initiative of Professors Campbell, Jude Ohaeri and Dr Tony Marinho. This initiative was revived and enhanced in 2004 through the efforts of Prof Chioma Asuzu. In 2008 the Psycho-Oncology Society of Nigeria (POSON) was formed with the aims of development, promotion, enhancement, research and training in order to improve the quality of life of cancer patients and their caregivers with the guidance of Dr Jimmie Holland. Psychosocial Care in Ibadan is based on an altruistic model. POSON organises yearly psychosocial conferences all over Nigeria. The association became a member of the Federation of Psycho-Oncology Societies in 2011. With the continued support of Jimmie Holland the IPOS Association for Psycho-Oncology in Africa (APOA) was inaugurated in 2013 in Durban and the second conference of APOA was held in Nairobi, Kenya. The unit of Psycho-Oncology was established in the Department of Radiation Oncology, Department of Clinical Sciences, College of Medicine, University of Ibadan, Ibadan. This unit developed a Master's program in Psycho-Oncology. IPOS has contributed immensely to the growth and development of Psycho-Oncology in Africa through training academies, which have been organised in the various parts of Africa.

Asuzu C

IMPORTANCE OF COMMUNICATION SKILLS IN ONCOLOGY AND SCREENING FOR DISTRESS AS AN ESSENTIAL TOOL TO COMMUNICATION

Asuzu C[1]
[1]University of Ibadan

MEETING ROOM 2

**Tuesday
5 November 2019
09:00–11:00**

Effective communication is essential for the optimal delivery of healthcare services and is a central component of any National Cancer Control Strategy. Communication covers the whole disease trajectory encompassing prevention, diagnosis, treatment, survivorship, end-of-life care, and family bereavement. This symposium intends to enhance overall communication knowledge and skills of physicians, nurses, and allied health professionals working in oncology in Africa. Dr Asuzu will build the argument as to how communication is essential to improving cancer outcomes in Africa. She will present on the importance of distress screening as a communication tool in oncology. Drs Lounsbury and Henry will present the results of a survey of 118 professionals on communication of a cancer diagnosis in African oncology settings. Sokhna Ndiaye will further explore the role of stigma in African cancer communication and treatment outcome. Dr Ntizimira will present clinical cases outlining how a family systems approach and paying attention to family dynamics is essential to enhance communication.

Atuhe I

LB024 | SHOW ME WHERE CANCER CARE IS: IMPROVING ACCESS TO CANCER SERVICES THROUGH TRAINED PATIENT NAVIGATORS

Atuhe I[1]
[1]Uganda Cancer Institute / African Cancer Control Alliance

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION A cancer diagnosis often produces an overwhelming emotional response, including feelings of shock, denial, fear, anxiety, anger, grief, and depression. Because a multitude of medical tests and consultations typically are needed to determine a definitive diagnosis and course of treatment, a cancer patient's path through the healthcare system can be complicated and confusing. Even worse, some patients may not fully comprehend the importance of prompt evaluation and treatment of their disease. To address these challenges, more and more cancer programs are looking to assist patients through this process. Patient navigation has emerged as an innovative, community-based approach to reducing cancer care access barriers along each step of the cancer care continuum; screening, diagnosis, treatment, and outcomes. There is urgent need to introduce patient navigation training programs in Uganda to equip navigators with skills to help them effectively navigate patients across the care continuum. Trained nurses, social workers, nutritionists, financial counselors, and other professionals can provide a depth of expertise in a cost-effective manner and improve treatment outcomes for cancer patients. A coordinated team will be formed composed of administrators to champion the program; supervisors to provide clinical and administrative support; and navigators to guide cancer patients through the cancer care continuum.

OBJECTIVES i) To improve basic cancer patient navigation skills; ii) To build a coordinated team of cancer patient navigators composed of representatives of cancer hostels, expert cancer patients, Uganda Cancer Institute (UCI) Social workers, clinical and research teams; iii) To develop cancer patients' navigation action plans at Uganda Cancer Institute and iv) To minimise barriers to care experienced by individual patients

METHODS The training will use a modified Harold P. Freeman Model (1990) and Patient Navigator Training Collaborative Model's materials for Level 1 patient navigators to train nurses, social workers, nutritionists, financial counselors, and other professionals. Content will be delivered through plenary presentations including navigation best practices and small group work.

EXPECTED OUTCOMES Thirty three navigators equipped with cancer patient navigation skills; patient navigation committee established; Patient Navigation Action Plans in place; improved access to services across the cancer care continuum.

FOLLOW-UP ACTIONS Holding of monthly patient navigators' meetings. Implementing patient navigation action plans. Compiling and submission of monthly patient navigation reports.

Atuhe I

LB034 | BRIDGING CANCER CARE GAPS, PROVIDING HOMES AWAY FROM HOME: RELEVANCY OF CANCER PATIENTS HOSTELS IN UGANDA

Atuhe I[1]
[1]Uganda Cancer Institute / African Cancer Control Alliance

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Difficulties in accessing appropriate accommodation and transport is a well-documented as a major stress factor for cancer patients seeking care at Uganda Cancer Institute (Young, 2010). A recent assessment of the needs of cancer patients at Mbarara University Cancer Center revealed similar challenges (UCF, 2016). This limits access to cancer treatment services and negatively affects the quality of life of cancer patients. The Union for International Cancer Control (UICC) recommends establishment of "Hope Lodges" as a way of enabling cancer patients to access treatment who would otherwise be prevented by transport and accommodation challenges (UICC, 2014).

METHODS Five Cancer Patients hostels have been established in Kampala. The hostels provide accommodation and meals to cancer outpatients and their carers as they wait for / receive treatment at Uganda Cancer Institute. In addition, clinical navigators travel with patients from the hostels to the Uganda Cancer Institute and navigate them through different care access points. Priority is given to cancer patients who come from upcountry as they wait for laboratory results or receive chemotherapy and radiotherapy.

RESULTS About 120 patients' and 120 carers' beds are available each night in Kampala. Three meals are served to each patient and carer daily. Patients from up country can access cancer treatment without worrying about accommodation and meals.

CONCLUSIONS There is need to establish more patient hostels to cater for increasing number of cancer patients in Uganda.

Atundo L

P328 | INCIDENCES AND TRENDS OF LUNG CANCER IN WESTERN KENYA FOR THE PERIOD BETWEEN 2012–2016

Atundo L[1], Asirwa C[1,2], Chesumbai G[1]
[1]Moi University, [2]Indiana University

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Lung cancer diagnosis remains a challenge in Kenya due to the technicalities related to diagnostic procedures and optimal care. The burden in adult population is largely unknown as most patients are managed for Pulmonary Tuberculosis. The Eldoret Cancer Registry (ECR) provides statistics and epidemiological profile across western Kenya. This study aims at establishing lung cancer incidences in relation to year of diagnosis, age, gender and stage upon diagnosis.

METHODS A retrospective review of cases diagnosed at Moi Teaching and Referral Hospital (MTRH) from 2012 to 2016 were identified from ECR. This was before the Multinational Lung Cancer Control Program (MLCCP) began. Data on year of incidence, age, gender and stage at diagnosis were analyzed.

RESULTS Out of the 60 patients diagnosed, the findings were: In 2012 there were 11 cases representing 18.3%, 2013 10 cases (16.7%), 2014 12 cases (20%), 2015 12 cases (20%) and 2016, 15 cases (25%). Incidences by age were in the following cohorts; 0–27 years 1case representing 1.7%, 30–39 years (4) 6.7%, 40–49 years (8) 13.3%, 50–59 years (17) 28.3%, 60–69 years (12) 20%, 70–79 years (15) 25%, above 80 years (3) 5%. Incidences by gender: Male had 38 cases at 63.3% and Female had 22 cases at 36.7%. Incidence by stage at diagnosis; Stage IV (6) 10%, Unknown Stage (54) 90%.

CONCLUSION 2016 had the highest incidence and may be associated with increased awareness of services at AMPATH/MTRH. Most cases were between 50–79 years. Males had higher incidences and may be related to susceptibilities to risks factors like smoking and occupational hazards. Since the inception of MLCCP in 2018, 64 new lung cancer cases were diagnosed which is more than the previous 5 years combined. There's need for creating awareness and "screening" of clients presenting with associated signs and symptoms to enable early diagnosis of lung cancer. Disease staging is essential as most cases were of unknown stage.

Atundo L

P353 | LUNG CANCER PRESENTATIONS AMONGST PATIENTS ATTENDING CARE AT AMPATH IN WESTERN KENYA

Atundo L[1], Asirwa C[1,2], Jepkirui S[1], Kiprono H[1]
[1]Moi University, [2]Indiana University

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Misdiagnosis of Lung cancer remains a major challenge in Kenya due to lack of a high index of suspicion for clients presenting at health facilities. Besides technicalities related to screening and diagnostic procedures, similarities in clinical manifestations with pulmonary tuberculosis have largely contributed to most patients being mismanaged. The aim of this study was to establish the clinical presentations of lung cancer prior to diagnosis as seen at AMPATH Kenya.

METHODS A review of all cases presenting at the Lung Cancer clinic was done and documentation of symptoms made. On diagnosis, a retrospective analysis was made to establish the presenting complaints about every patient with lung cancer. Percentage occurrence for every symptom was made and tabulated to give a reflection of the most common and less common since the inception of the program in November 2017 to March 2019.

RESULTS The following were the findings of the 64 patients diagnosed with Lung cancer: Chest pains had percentage occurrence of 87.5%, cough 73.4%, difficulty in Breathing 53.1%, Weight loss 40.6%, haemoptysis 37.5%, shortness of Breath 31.3%, Other Symptom's 31.3%, Fatigue 18.8%, Back pain 14.1% It was noted that patients presented with more than one symptom at the clinic. Chest pain was the most common symptom accounting for 87.5% of all cases while back pain accounted for the least at 14.1%. Other symptoms included hoarseness of voice, general body malaise, abdominal pain, hemiplegia, nausea & vomiting and neurological symptoms that together accounted for 31.3%.

CONCLUSION Chest pains, cough and difficulty in breathing are the most outstanding symptoms related to lung cancer. For a high index of suspicion, healthcare providers should identify clients with such symptoms and consider further investigations. These symptoms should also be part of community health workers training to ensure prompt referrals are done and outcomes are improved.

Avery S

P286 | BUILDING CAPACITY IN EAST AFRICA TO REDUCE RADIATION TOXICITIES AND MANAGE RADIOTHERAPY CARE FOR CANCER TREATMENT

Avery S[1], Bin Dachi J[2], Yusufu S[2], Ngwa W[4], Ngoma T[3], Mwaiselage J[2]
[1]University of Pennsylvania, [2]Ocean Road Cancer Institute, [3]Muhimbili University of Health and Applied Science, [4]Harvard University

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE We are establishing the framework for a Radiation Oncology education training program in Global Health. We will investigate partnership with industry to offer an education program which coincides with the purchase of radiotherapy equipment for LMICs. The education program would focus on treatment issues in Africa by integrating education, training and information/communication technologies (ICTs) to enhance impact to have a major impact in building radiation oncology capacity in East Africa. The establishment of an advanced information and communications technology platform will avail remote quality assurance and treatment planning, enhancing patient safety in the use of radiation technologies, while complementing capacity building in research and education.

METHODS We developed a dedicated workshop to serve as the framework to develop of an education program in Global Health, with industry partners, which coincides with the purchase of new equipment. This will assure continued growth as technology advances. We tested and evaluated a virtual USA-Africa ICT-powered Radiation Oncology Core (IROC). The significance of this activity alone will be major for East Africa with plans to adapt and scale this to other African countries. This program can significantly improve patient safety in the use of radiation medicine technologies. The online platform could also be readily adapted for use as a multi-centre clinical trial system for quality assurance. It could also double serve as a population-based cancer patient registry and potentially connect other arrays such as genetic or pathology information to appropriate research databases.

RESULTS Focusing on "Training the Trainers", understanding barriers and identifying key factors to expanding radiotherapy care in east Africa will strengthen our development in creating an education program with long term sustainability. A developed IROC will serve as the first of its kind ICT-powered QA, treatment planning, and incident learning system in East Africa, extendable to other sub-Saharan African countries facing the ongoing crises in radiation medicine

CONCLUSIONS Building on current partnerships we are strengthening our engagement by providing a roadmap for medical physics training. Our long-term goal is to develop a USA/Africa Radiation Oncology Core (ROC), with both practical (PROC) and virtual (IROC) components, dedicated to Research Education/training in Radiation oncology in East Africa.

Awolude O

P205 | GENETIC SCREENING AMONG HEREDITARY BREAST AND OVARIAN CANCER PATIENTS AND ITS IMPLICATIONS FOR PREVENTION OF WOMEN CANCERS: FINDINGS FROM PILOT STUDY IN NIGERIA

Awolude O[1], Aniagwu T[2], Adejumo P[1], Olopade F[3]
[1]University of Ibadan, [2]Univerity College Hospital, [3]University of Chicago

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Hereditary breast and ovarian cancers (HBOC) can result from inherited mutations in the genes involved in DNA repair in 20% of cases. Knowledge of the index patients' germline gene mutation status has therapeutic, prevention and financial benefits. Despite availability of genetic testing in global medical practice and its potential benefits, most low- and middle-income countries (LMIC) like Nigeria are over 20 years behind in implementation. The implications of this is the missed improved therapeutic opportunities and persistence of HBOC as the most lethal of women cancers and loss of preventive opportunities for the eligible first-degree relations (FDRs) of the patients.

OBJECTIVE This paper describes the findings from pilot feasibility study on genetic testing to determine the gene mutation status of HBOC patients with overall aims of institutionalising personalised treatment and identification of at-risk relations for risk-reduction preventive interventions.

METHODS We counselled and screened histologically confirmed HBOC patients for gene-deletion in our oncology practice using a multi-disciplinary team approach. Also, the family pedigrees were constructed to have records of identified FDRs that might benefit from risk-reduction interventions (RRI).

RESULTS We have enrolled 96 cases of HBOC with results for 93 patients with breast and ovarian cancers since July 2018. The mean age of the patients was 48.4 years. Family pedigree showed that the modal parity was 3. Testing results showed 15 (16.2%) pathogenic mutations [13.4% (11/82) in breast cancer] and [36.4% (4/11) in ovarian cancer], 27 VUS and 55 no mutation cases.

CONCLUSIONS Our study showed that 16.2% of our patients stand to benefit from targeted therapy from emerging new drugs like PARP inhibitors while, at least, 45 biological FDRs will be eligible for screening for RRI. Institutionalising and expanding this study to other facilities will enhance therapeutic outcomes for these patients and form preventive measures for the FDRs and improvement in women health generally.

Ayeni O

P108 | THE MULTIMORBIDITY PROFILE OF SOUTH AFRICAN WOMEN NEWLY DIAGNOSED WITH BREAST CANCER

Ayeni O[1,2], Norris S[1,2], Joffe M[1,2], Cubasch H[1,2], McCormack V[3], Micklesfield L[1,2]
[1]University of the Witwatersrand, [2]Wits Health Consortium, [3]International Agency for Research on Cancer

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Multimorbidity in women with breast cancer may delay presentation and may affect cancer treatment decisions and outcomes. The aim of this study was to describe the multimorbidity profile of women newly diagnosed with breast cancer in South Africa, and to identify its correlates and associations with stage at breast cancer diagnosis.

METHODS We collected self-reported data on five chronic conditions (hypertension, diabetes, cerebrovascular diseases, asthma/chronic obstructive pulmonary disease, tuberculosis), determined obesity using body mass index (BMI), and tested HIV status, in women newly diagnosed with breast cancer between January 2016 and April 2018 in the South African Breast Cancer and HIV Outcomes study (SABCHO), which included 5 public hospitals. Using multivariate logistic regression models, we identified correlates of ≥ 2 of the 7 above mentioned conditions (defined as multimorbidity), and multimorbidity itself with stage at diagnosis (advanced (III and IV) vs. early (I and II)).

RESULTS Among 2281 women, 1001 (44%) presented with ≥ 2 chronic conditions; obesity (52.8%), hypertension (41.3%), HIV (22.0%) and diabetes (13.7%) were the chronic conditions that occurred most frequently at diagnosis. Multimorbidity was more common with older age (OR=1.02; 95% CI 1.01–1.03), higher household socio-economic status (HSES) (OR=1.06; 95% CI 1.00–1.13) and enrolment at Kwa-Zulu Natal (KZN) Durban hospitals: (OR=1.89; 95% CI 1.42–2.51) and KZN Greys hospital, Pietermaritzburg: (OR=1.49; 95% CI 1.12–1.97) vs. Soweto, Johannesburg hospital. Ethnicity (Asian OR=0.70; 95% CI 0.50–0.97 and white OR=0.36; 95% CI 0.24–0.54, vs. blacks) was associated with a lower odd of having multimorbidity. Multimorbidity was not associated with advanced stage breast cancer at diagnosis, but for self-reported hypertension there was a lower odd of being diagnosed with advanced stage breast cancer in the adjusted model (OR 0.80; 95% CI 0.64–0.98).

CONCLUSIONS The burden of multimorbidity is high among these patients with breast cancer. Our findings suggest that the presence of multimorbidity had no significant impact on breast cancer stage at diagnosis. There is need to understand the impact of multimorbidity on breast cancer outcomes.

Cubasch H

P354 | MALE BREAST CANCER AT THE CHRIS HANI BARAGWANATH ACADEMIC HOSPITAL, SOWETO, SOUTH AFRICA, 2006–2018: A TWELVE YEARS AUDIT

Cubasch H[1,2], Ayeni O[1,2], Chen W[1,3], Joffe M[1,2], Tsai M[1]
[1]University of the Witwatersrand, [2]Wits Health Consortium, [3]National Cancer Registry

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Male breast cancer accounts worldwide for approximately one per cent of new breast cancer cases. Treatment protocols are often extrapolated from female breast cancer, but controversy remains if this is appropriate. We describe the demographic and clinical profile of men diagnosed with breast cancer at our institution.

METHODS Electronic data of males diagnosed with breast cancer at the Chris Hani Baragwanath Academic Hospital (CHBAH), Soweto, South Africa from 2006–2018 were extracted. Demographics, clinical features, treatment and outcome are described.

RESULTS 39 patients were diagnosed with breast cancer. The median age (interquartile range) at diagnosis was 64 (54–71) years, and 36 (92.3%) were black Africans. The majority, 24 patients (61.5%) presented with advanced disease (stages III & IV), while 15 (38.5%) had early disease (stages 0-II). 38 (97.4%) were invasive carcinomas and 1 (2.6%) was a ductal carcinoma-in-situ (DCIS). 36 (92.2%) had oestrogen and/or progesterone receptor positive breast cancer, 1 (2.6%) was HER2 enriched, 1 (2.6%) was triple negative and 1 (2.6%) patient had missing receptor status. The primary treatment modality was neoadjuvant hormonal therapy in 21 (53.8%) of the patients, 12 (30.8%) had primary surgery, 5 (12.8%) had neoadjuvant chemotherapy and 1 (2.6%) had palliative radiotherapy. 21 men (53.9%) died during follow up, 11 (28.2%) were alive and 7 (17.9%) were lost to follow-up. The median follow-up time (IQR) was 23 (9–43) months, median time to death (IQR) was 18 (12–24) months, the 2- years survival rate was 59.4% and 5-year survival rate was 18.5%.

CONCLUSION The epidemiology and biology of male breast cancer was found to differ from breast cancer in females. Most of our patients received neoadjuvant endocrine therapy. Further research is needed on how to best manage this rare disease in a resource limited environment.

Bagudu Z
ADVANCING GLOBAL ONCOLOGY BY AFRICAN WOMEN

Bagudu Z[1], Omoragbon A[1], Amanabo H[1]
[1]Medicaid Cancer Foundation

MEETING ROOM 1

Wednesday
6 November 2019
10:30–11:30

The female gender has been making significant contributions to cancer treatment and care for decades. Be it as scientists, healthcare professionals, advocates or caregivers; women have undeniably played a vital role in reducing the devastating impact cancer has on individuals and societies across the globe. Although recent decades have seen great strides in the battle against cancer, there is still much work to be done. Projected incidence and mortality rates give a forewarning of the growing burden the disease will have on individuals, families, communities, societies and economies worldwide, unless more is done to prevent it. Statistics also examines the disproportionate impact cancer continues to have on women in low middle income countries and gives perspectives on the most effective ways to rectify this now and in the decades ahead.

   A diagnosis of cancer comes with low chances of surviving and incidence and mortality are usually represented by closed data. This is due shortage of cancer drugs, radiotherapy centers, surgeons and oncologists. Most glaringly lacking are female oncologists. The under-representation of women in leadership roles is a theme that cuts across all sectors of the global workforce. Whilst women comprise up to 42% of the world's paid working population, it is estimated that globally, they occupy only 24% of senior management positions. Within the healthcare sector, women comprise over 75% of the workforce in many countries, making them an important factor in the delivery of medical services. A closer examination however reveals a gender disparity at the professional level- Nursing and midwifery professionals are nearly 90% women, while only 25% of physicians are women. This presentation aims to highlight the contribution of African Oncologists in the fight against cancer with the secondary aim of inspiring the younger generation of African females to adopt the science of Oncology in greater numbers.

Bala A

LB046 | SURGICAL MANAGEMENT OF BREAST CANCER IN A TERTIARY HEALTH INSTITUTION IN NORTH WESTERN NIGERIA

Bala A[1], Ismail N[1], Ibrahim S[1], Sheshe A[1]
[1]Aminu Kano Teaching Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES The specific objectives of this study were to determine the stage at presentation and the type of surgery offered to patients with breast cancer who participated in the study.

METHODS The study was conducted at Surgery department of Aminu Kano Teaching Hospital, Kano, Nigeria, from June 2017 to May 2019. It was a prospective descriptive study of consecutive patients with breast cancer who met the inclusion criteria. Patients were recruited only after obtaining informed consent. Information obtained include Age, Menopausal status, Stage at presentation, neodjuvant chemotherapy offered, type of surgery offered, histopathological profiling and complications of the surgery. Statistical and comparative analysis was made using SPSS version 21

RESULTS A total of 193 patients with breast cancer were seen at the General Surgery Outpatient Department during the period of the study. Out of these patients, only 107 met the inclusion criteria, were recruited and completed the study. The age range of 27 to 70 years and mean age of 46.9 ±11.2 years were recorded. Sixty three (58.9%) patients were premenopausal. Eighty six (80.4%) patients had locally advanced disease at presentation. Eighty nine (83.2%) patients had neoadjuvant chemotherapy or hormone therapy. Immmunohistochemistry was done in only seventy five (70.1%) patients. Out of these patients that had immunohistochemistry, only 42 (56%) patients had treatment based on receptor status and biological classification of the tumour. Total mastectomy with axillary clearance was offered to 92 (85.9%) patients. Post operative complications were seen only in 13 (12.2%) patients who had surgery.

CONCLUSION Locally advanced breast cancer was still the predominant cancer in our environment with majority of the the patients offered modified radical mastectomy with its complications including bridled scar. There is therefore a need for increased awareness for early detection and treatment of breast cancer in North Western Nigeria.

Balogun O

P059 | A PILOT CURRICULUM FOR THE IMPLEMENTATION OF 3-D CONFORMAL PRONE BREAST RADIATION THERAPY (3D-CRT)

Balogun O[1], James L[2], Chepkemoi L[3], Zeitner S[4], Kayende R[2], Belembaogo E[2]
[1]Weill Cornell Medicine/NewYork—Presbyterian Hospital, [2]Institut De Cancerologie, [3]Cornell University, [4]New York University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

PURPOSES Radiation therapy centres in developing nations are beginning to adopt 3D-CRT. Standardised instruments for assisting RT professionals as they transition from 2-D to 3D-CRT planning are lacking. We pilot-tested a two-week curriculum to provide the basic foundations for RT professionals to implement prone 3-DCRT for breast cancer. An additional aim of the project is to assess feasibility as a model for wider application in other centres. The pilot site, the Institut de Cancerologie in Libreville, Gabon acquired a CT simulator and linear accelerator in 2012. We focused on breast cancer since it is the most common female cancer in Gabon.

METHODS The training curriculum for radiation oncologists (ROs), therapists (RTTs) and medical physicists (MPs) consisted of:

Week 1 (Days 1–5)

1) Assessment of workflow and scheduling of the course; 2) Lecture on differences between 2-D and 3-DCRT & 3-DCRT benefits; 3) Lecture on prone positioning; 4) Review of the RTOG Breast Cancer Atlas; 5) 10 questions test pre- & post-training; and 6) Practical training in supine and prone CT simulation.

Week 2

1) Guided contouring of tumor and normal organs using Educase modules; 2) Practice in designing beam shapes & angles through a dosimetry workshop; 3) Simulate, plan and treat first patient; and 4) Feedback from the participants using focus groups and questionnaires.

RESULTS Thirteen RT professionals participated in the pilot curriculum (6 ROs, 2 MPs and 5 RTTs). All thirteen attended the lectures and participated in the CT simulation. Contouring was reviewed with ROs after patient simulation and based on availability between patient visits. Assessment demonstrated that contouring was widely considered the most useful aspect of the curriculum. Key challenges included (1) achieving individual participation in all aspects of the curriculum in a high-volume department, (2) optimal design of a prone breast board and (3) language barriers.

CONCLUSIONS A pilot curriculum to guide 3-DCRT transition is feasible. It requires availability of a team of RT professionals from both collaborating institutions and sufficient flexibility from all parties. It presents a unique opportunity for exchange of expertise. Based on this initial success, the next phase consists of a curriculum to train RT professionals in 3-D techniques for pelvic cancers. Parallel efforts in refining the curriculum are ongoing for testing the intervention in the next collaborating country.

Balogun O

P060 | IMPLEMENTATION OF A WEB-BASED PLATFORM TO IMPROVE RADIATION ONCOLOGY EDUCATION AND QUALITY IN AFRICAN NATIONS

Balogun O[1], Ball A[2], Simmonds H[3], Vanderpuye V[4], Hardenbergh P[2,5], Grover S[6]
[1]Weill Cornell Medicine/NewYork—Presbyterian Hospital, [2]Chartrounds, [3]University of Cape Town, [4]University of Ghana, [5]Shaw Regional Cancer Center, [6]University of Pennsylvania

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES Chartrounds (www.chartrounds.com) is a free web-based virtual conferencing platform for radiation oncologists to review cases with leading disease-site experts. Chartrounds was founded in the US in 2010, and in recent years the international member base has grown substantially. To respond to the increased interest in Chartrounds globally, four dedicated international Chartrounds sites were developed: Chartrounds India, Chartrounds Africa, Chartrounds Latin America, and Chartrounds China. Following the success of Chartrounds India, Chartrounds Africa was launched in January 2018. Our initial experience with this initiative is reported here.

METHODS The US Chartrounds platform was adapted to create Chartrounds Africa (afr.chartrounds.com). Through a partnership with the African Organisation for Research and Treatment in Cancer (AORTIC), Africa-based specialists were recruited, and the potential Chartrounds Africa audience was targeted through the AORTIC membership email list. Clinicians with experience in African clinical settings were also recruited. The first Chartrounds Africa session commenced in January 2018, and one-hour disease site and/or technique focused sessions have continued on a monthly basis at a scheduled time since. After each session, a set of standard questions is posed to all Chartrounds Africa members to collect feedback.

RESULTS Between November 2017 and March 2019, 12 Chartrounds Africa sessions were completed, led by 10 different specialists and covering 6 disease sites/topics (Breast: 1, Gastrointestinal: 1, Genitourinary: 3, Gynecologic: 4, Head & neck: 1, Thoracic: 1). At the conclusion of March 2019, 42 oncologists registered as members. Thirty-three members had participated in at least one Chartrounds Africa session. The average number of participants per session was 3 (range 1-6). Five surveys have been completed with participants rating the quality of the sessions highly (average 4.8, scale 1-5).

CONCLUSIONS Chartrounds Africa has the potential to be a useful online platform for radiation oncology case review and education. Initiatives to increase participation such as incorporation of French-speaking sessions are currently being implemented. In addition, additional feedback through informal channels (i.e. email) will be sought in order to inform future changes to Chartrounds Africa.

Banerjee S
CLINICIAN-PATIENT COMMUNICATION SKILLS TRAINING IN ONCOLOGY

Banerjee S[1]
[1]Memorial Sloan Kettering Cancer Center

MEETING ROOM 2

Tuesday
5 November 2019
11:30–13:30

Dr Parker, Dr Banerjee, and Dr Travado will describe communication skills training, both overall and in special contexts. Memorial Sloan Kettering Cancer Center has developed an evidence-based, robust program in communication skills training with a mission "to work in partnership with clinicians of all disciplines to improve communication with cancer patients and their families, and thus enhance overall adaptation to the illness." Recognising clinical challenges and developing healthcare provider-focused communication skills training to improve patient outcomes highlights the thematic similarity of many research endeavors in the Communication Skills Training and Research Lab. This presentation will include an overview of communication skills training for different oncology clinicians, followed by a focus on training clinicians caring for special populations, i.e., older adult with cancer, and pediatric patients. We will conclude with an overview of evaluation of communication skills training programs and future directions.

Barango P

WHO MILLENNIUM GOALS FOR AFRICA, INCLUSION OF PSYCHO-ONCOLOGY AS PART OF UNIVERSAL HEALTH COVERAGE, AND IPOS COLLABORATION

Barango P[1]
[1]World Health Organisation

PLENARY VENUE

Friday
8 November 2019
08:30–10:00

BACKGROUND In Africa, cancer burden is increasing at a rate projected to double by 2040 from 1,055,172 new cases in 2018 to 2,123,245 by 2040. In Africa late-diagnosis partly explains the wide mortality-to-incidence ratio for most cancers, delays related to low population health literacy and a weak health system in most African countries. Cancers otherwise curable if detected early carry a poor prognosis (e.g. 10–20% 5-year survival for childhood cancers vs. 80–90% in high income countries). Consequently, most people in Africa view cancer as a death sentence and delay seeking medical care when discovering early signs and symptoms due to denial, anxiety, paranoia, fear, and unsavory experiences. The challenge is further compounded by poor capacity of front-line medical practitioners to provide appropriate counselling and messaging for patients and their immediate circle of relations. Role of Psycho-Oncology in comprehensive cancer care and UHC Psycho-oncology, a recognised field of practice improving outcomes, is still nascent in Africa and often absent in routine cancer management. With the Sustainable Development Goals, all countries committed to achieving universal health coverage (UHC) by 2030. Psycho-oncology has a unique role in this agenda by ensuring better treatment outcomes and promoting quality cancer care at all stages of the cancer continuum. Through effective communication, including factual elements and empathy, we can also impact utilisation of prevention and control interventions. IPOS and WHO are uniquely positioned to promote comprehensive cancer care including adaptation of national guidelines to resource-limited settings.

Barbosa C
PROGRAMA DE PREVENÇÃO E CONTROLO DO CANCRO (PPCC) PLANO ESTRATÉGICO DE CABO VERDE

Barbosa C[1]
[1]Hospital Dr Agostinho Neto

MEETING ROOM 4

Friday
8 November 2019
10:30–12:00

O cancro é um problema de saúde em Cabo Verde, sendo a segunda causa de morte e lidera as Evacuações Externas para tratamento. Cabo verde, no seu compromisso em acompanhar as mudanças demográficas em curso, deu um importante passo ao incluir as doenças não transmissíveis na Política Nacional de Saúde e implementou um Programa Nacional, em 2013, com o objetivo de operacionalizar a prioridade referente a prevenção e controlo do cancro. A inexistência do Registo de Cancro de Base Populacional, limita o conhecimento da real situação, o que dificulta a definição de metas e indicadores. Segundo estimativas do GLOBOCAN, seria esperada no ano de 2018, a ocorrência de 641 casos novos de cancro no país, sendo que o cancro da próstata é o mais incidente, bem como a primeira causa de morte por cancro. Na mulher o cancro da mama seguido do cancro do colo uterino são os mais prevalentes. Para além da ausência de um do Registo oncológico de base populacional, a falta de infraestruturas, de recursos humanos capacitados, a escassa literacia populacional sobre a doença oncológica, são dos vários pontos fracos do sistema. A estrutura existente, hoje, não possibilita uma resposta adequada ao problema do cancro no país. Há necessidade de planear e organizar uma oferta de cuidado integral e multidisciplinar aos pacientes com cancro, que obrigatoriamente deve passar por todo o espectro da prevenção e controlo, incluindo medidas de proteção, promoção da saúde e prevenção, diagnóstico, tratamento, reabilitação e cuidados paliativos. O plano Estratégico Nacional, tem como objetivo reduzir a incidência e a mortalidade por cancro em Cabo Verde, bem como melhorar a qualidade de vida dos pacientes com cancro e de suas famílias.

FROM DIAGNOSIS TO TREATMENT: THE EXPERIENCE OF IMPLEMENTATION OF A PROJECT OF INTEGRATED CARE TO THE CANCER PATIENT IN CAPE VERDE AND MOZAMBIQUE

Barbosa C, Tulsidas S

THE IMPROVEMENT IN THE DIAGNOSIS OF ONCOLOGICAL PATIENTS IN CAPE VERDE

Barbosa C[1], Borges H[1], de Almeida Pedro J[3], **Tulsidas S**[2], Carrilho C[2]
[1]Hospital Dr. Agostinho Neto, [2]Hospital Central de Maputo, [3]Fundação Calouste Gulbenkian

MEETING ROOM 1

**Thursday
7 November 2019
13:30–14:30**

Cancer is a major public health problem in developed and developing countries, accounting for more than six million deaths each year, accounting for about 12% of all causes of death in the world. Developing countries are disproportionately affected by disease growth, more than 70% of cases occur in Africa, and about 70% of deaths. The situation is expected to worsen due to population aging in these countries, as well as poor access to prevention and early detection. In Cape Verde and Mozambique, both countries facing an epidemiological transition, cancer has become an important public health problem. Many cases are diagnosed at an advanced stage of the disease, placing emphases on the preventive measures, screening for the early diagnosis and adequate treatment for the improvement in the survival of patients. Since 2013 in Mozambique and 2016 in Cape Verde, the Calouste Gulbenkian Foundation supports an integrative response to contribute to the reduction of cancer mortality and to improve the quality of life of these patients. The focus of the projects are in the training of specialised human resources, improvement of clinical equipment and means of diagnosis, and raising awareness of the magnitude of cancer. In this roundtable the participants will present the rational, work developed and difficulties in the implementation of a multiyear plan in these two distinct contexts – Cape Verde and Mozambique.

Alatise O

P061 | MULTIDISCIPLINARY NEEDS ASSESSMENT AND SYMPOSIA FOR CANCER INTERVENTION PLANNING IN NIGERIA

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The African Research Group for Oncology (ARGO) is a National Cancer Institute recognised cancer consortium that aims to advance the frontiers of oncology practice in Nigeria. In April 2019, multidisciplinary experts from sub-Saharan Africa and the United States assembled at the 6th Annual ARGO Symposium to share practical approaches to caring for cancer patients. The research objective of this symposium was to determine key stakeholders' knowledge, attitudes, beliefs and practices for safe handling of chemotherapy and image-guided biopsy. The results of these needs assessments will inform the development of effective oncology interventions for the African context.

METHODS A mixed method needs assessment was performed utilising qualitative interviews, quantitative surveys, and a review of current-state practices for chemotherapy handling and image-guided biopsy. Voluntary, anonymous surveys were administered to all conference attendees. A subset of attendees participated in 6 focus groups among surgeons (n=4), radiologists (n=21) pathologists (n=6) and nurses (n=6). Survey items adapted from existing instruments and interview guides were developed collaboratively with local and international input.

RESULTS Surveys targeting knowledge, attitudes, and willingness to practice safe handling of chemotherapy were completed with a 50% response rate (n=49). Individual discussions with staff identified training needs including programs in safe handling of chemotherapeutic agents. Surveys focusing on knowledge, usage, training needs, and attitudes toward image guided biopsy were completed with a 55% response rate (n=54) and found that 24% of respondents regularly perform ultrasound guided biopsy, while 35% have observed the procedure. 78% of respondents expressed strong interest in creating an ultrasound-guided biopsy training program in Nigeria. Focus groups identified challenges to performing image-guided procedures, including equipment functionality, staff training, and access to consumables. Groups also brainstormed the design of an mHealth-based ultrasound biopsy training program.

CONCLUSION Multidisciplinary collaboration with local stakeholders is imperative to direct meaningful capacity building interventions in LMICs.

Basson I

P033 | NOVEL PROTEOMIC BIOMARKERS FOR MELANOMA: A PILOT IN-VITRO STUDY

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE To identify predictive biomarkers of treatment failure and disease recurrence in acral lentiginous melanomas using a preliminary in vitro approach.

METHODS Two melanoma cell lines (UCT-Mel-1 and A373), one malignant fibroblast cell line (HT1080) and one normal keratinocyte cell line (HaCat) were used. All 4 cell lines were treated with 0.625mM to 10mM of dacarbazine (DTIC) to identify respective IC50 concentration for the cell lines. Cells were induced to resistance and recurrence using concentration-based workflows. Thereafter, cells were harvested and subjected to protein extraction, quantification and digestion. Peptides were desalted using a C-18 solid phase extraction (SPE) technique; lyophilised and resuspended in HPLC grade water containing 0.1% formic acid (v/v). Mass spectrometric analysis was performed on a hybrid quadrupole time-of-flight instrument (IMPACT II, Bruker Daltonics, Bremen, Germany) in line with an ultra-high-performance liquid chromatography (UHPLC) instrument (Dionex® UltiMate 3000 RSLC nano-UPLC system, Thermo Scientific, San Jose, CA, USA). Data generated was pre-processed and analysed using qualitative (ProteinScape-Mascot workflow) and quantitative (Maxquant-Perseus) proteomics bioinformatic algorithms and pipelines. Multivariate statistical analyses were used to identify differentially expressed proteins and molecular signatures. Furthermore, STRING functional pathway analysis was conducted to determine enrichment for various biological processes using the top-ranking differentially expressed proteins.

RESULTS IC50 values were generated and used to establish a recurrent and resistant cell lines. Differentially expressed proteins were identified (false discovery rate (FDR) ≤ 0.05) between resistant/recurrent cells for all 4 cell lines using quantitative proteomic analysis. Key biological pathways and molecules involved in melanoma recurrence and resistance were identified.

CONCLUSIONS These preliminary findings indicate that proteomics and in-vitro modelling may potentially improve the identification of molecular targets for disease treatment. Identified biomarkers would be further validated in formalin-fixed paraffin-embedded (FFPE) archival tissues and xenograft models.

Bauknecht T

P193 | THE E-HEALTH APPLICATION "MALIFE" IN COMBINATION OF SELF SAMPLING PROGRAM, HPV TESTING AND MOBILE COLPOSCOPY TO PREVENT CERVICAL CANCER IN LMIC: A PILOT PROJECT "MALIFE" IN 5 RURAL MIDWIFE GUIDED HCU'S IN UGANDA

Kafureka B[3], Ruzaaza Ndaruhutse G[4], Odhiambo S[1,2], Matsiko J[3], Birmelin G[1], Sehouli J[5], **Bauknecht T**[1]
[1]QoL-Ma UG, [2]Ukowapi UG, [3]Yozma, [4]Univ. of Science and Tech., [5]Charite Univ. Women Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The aim of the feasibility is to increase the participation rate in Cervical Cancer prevention programs using an e-Health solution. We started a feasibility e-Health project in Uganda for prevention to find out convenience and customers usability in the hands of midwife guided Health Care Units (HCU).

METHOD We developed an e-Health solution called "MaLife" enabling smart phone applications for customers (frontend device) to be connected with a hospital-based program (backend). The applications collect customer personalised data, medical history and are connected via internet and cloud services according to the highest data safety rules.

RESULTS The "Frontend" mobile device has 3 parts: 1.) educational, 2.) symptom documentation and 3.) HPV testing and result reporting including appointment for medical consultation. The web App "Backend" includes personalised data documentation such as socio-economic data, patient's history and follow up. The data are transferred to a cloud service for data storage and statistical analysis. The project started as a feasibility project in 5 rural areas in Uganda of midwife guided Health Care Units (HCU). The aim is to find out the convenience and usability, how customers understand it and are able to perform documentation. A similar program runs in parallel for maternity documentation. All patients are offered to use self-sampling brushes (Evelyn) to collect vaginal probes. All probes are sent to a Lab (Freiburg; Germany) for HPV testing. The participating midwives were trained to explain to the customers the function of the brushes as well as the function of the application. The midwives were also trained to use a portable colposcope (Eva; mobileODT; Israel). The ODT device can take and store pictures as well as to send those to experts from where recommendations are given. The 5 centres enrol 30 customers each, 15 for HPV and15 for maternity testing. The enrolment time of the pilot project is 4 weeks. After enrolment exists an observational phase to find out how the MaLife application will have been used. All customers receive after the pilot project a short questionnaire asking for convenience and about the benefit of the application.

CONCLUSION After the feasibility project we will improve the applications according to reported issues and include satellite connection devices enabling digital addressing (Ukowapi). Furthermore, we plan a clinical trial to find out if the used algorithm can be implemented in the general health care program of the country.

Bazzett-Matabele L

P355 | CHALLENGES TO EARLY DETECTION OF CERVICAL CANCER AT THE PRIMARY HEALTH CARE LEVEL IN RESOURCE-LIMITED SETTINGS IN RWANDA

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[1]University of Rwanda, [2]Yale University

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To assess factors in the healthcare system that cause delayed cervical cancer diagnosis at the primary healthcare level in Rwanda.

METHODS This was a descriptive study evaluating healthcare providers involved in the outpatient clinics at 10 selected health centres (HC) in Kigali city and Eastern province of Rwanda. Health care providers attending outpatient clinics at the selected HC completed a survey questionnaire.

RESULTS In total, 87 health care providers consented to participate in the study. Of the respondents, 85 (97.7%) were nurses and midwives, the majority being nurses at 81.6%. Only 15 (17.2%) received training on visual inspection with acetic acid (VIA) cervical cancer screening, in 6 out of the 10 HC surveyed. However, 75.9% of respondents reported there was at least one person trained in VIA screening at their HC. The necessary basic equipment needed for cervical cancer evaluation was reported to be available. However, our study did not assess the quality, quantity and functional status of this equipment. All providers reported that at times they do not provide necessary pelvic exam for cervical symptoms due to time constraints, or lack of materials or experience. Overall, 49 (56.3%) participants were found to have adequate basic knowledge on cervical cancer symptoms and the appropriate next step in case of symptoms. There was no association between knowledge level and respondents' profession, education level, work experience or reported past training on VIA cervical screening (p= 0.592, 0.384, 0.174 and 0.404, respectively).

CONCLUSIONS There is a gap in the number of care providers with skills to perform cervical cancer screening in Rwandan HC. As HC are the first point of entry of patients into the healthcare system, there is a need to empower them with human resources and infrastructure if an effective cervical cancer screening and prevention program is to be established.

Bazzett-Matabele L

P356 | DETERMINANTS OF PATIENT DELAY IN SEEKING DIAGNOSIS AND TREATMENT OF CERVICAL CANCER AMONG RWANDAN WOMEN CONSULTING KIGALI UNIVERSITY TEACHING HOSPITAL

Bazzett-Matabele L[1,2], Hanyurwimfura J[1], Ghebre R[3], Rulisa S[1], Ntasumbumuyange D[1]
[1]University of Rwanda, [2]Yale University, [3]University of Minnesota

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES Delay in diagnosis contributes to increased mortality from cervical cancer in Rwanda. Rwandan health care is a multi-tier system requiring transfer from health centre (HC) to district hospital (DH) and ultimately to tertiary or referral hospital to obtain cervical cancer diagnosis and treatment. This study aims to determine how access to medical services in the current health system may lead to delays in the diagnosis of cervical cancer.

METHODS This is a prospective descriptive study conducted from June 2017 to December 2017. Patients with a pathologically confirmed diagnosis of cervical cancer seeking care in the outpatient gynaecology department at University of Rwanda teaching hospital (KUTH), one of three main referral hospitals in Rwanda, were invited to participate. Demographic and clinical data were collected based on one-on-one interviews.

RESULTS Ninety-five patients with cervical cancer were recruited; 10 (10.5%) Stage I, 42 (44.2%) Stage II, 36 (37.9%) Stage III and 7 (7.4%) Stage IV. The majority of patients (85.3%) had no knowledge of cervical cancer symptoms prior to presentation. At the HC level, 40 (42.1%) women had a genital exam, 9 (9.5%) had speculum exam and no biopsies were performed. 42 women (44%) had ≥3 visits at HC prior to transfer to DH. Once referred to the DH, 88 (92.6%) patients had a genital exam, speculum exam performed on only 49 (51.6%) and 50 (52%) received a medication for their symptom. At the DH 55 women (57%) required ≥2 visits prior to transfer to referral hospital for biopsy.

CONCLUSIONS Early diagnosis of cancer is necessary to improve cervical cancer control in settings with limited access to cervical cancer screening. More than 45% of our patients were diagnosed in stage III or IV, a poor prognostic factor. National cancer control strategies are needed to improve early diagnosis for cervical cancer in Rwanda.

Bazzett-Matabele L

P395 | OUTCOMES OF NEOADJUVANT CHEMOTHERAPY AND RADICAL HYSTERECTOMY FOR LOCALLY ADVANCED CERVICAL CANCER AT KIGALI UNIVERSITY TEACHING HOSPITAL, RWANDA

Bazzett-Matabele L[1,2], Ngabonziza E[1], Ntihinyurwa P[1], Ghebre R[3], Kigonya C[4], Ntasumbumuyange D[1]

[1]University of Rwanda, [2]Yale University, [3]University of Minnesota, [4]Butaro Cancer Center

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES To evaluate the clinical and surgical response and disease-free survival of neoadjuvant chemotherapy (NACT) followed by radical hysterectomy in patients with locally advanced cervical cancer at Kigali University Teaching Hospital in Rwanda.

METHODS A retrospective descriptive study was performed, and data collected on eligible patients with FIGO stage IB2-IIA2 and some exceptional stage IIB cases. Patients were treated with neoadjuvant carboplatin and paclitaxel chemotherapy once every 3 weeks for 3–4 cycles before radical hysterectomy.

RESULTS Between May 2016 and October 2018, 57 patients underwent NACT and 43 (75.4%) were felt to be candidates for radical hysterectomy after clinical assessment only. Median age was 56 years. Thirty-nine (96%) patients received 3 cycles of NACT while 4(4%) received 4 cycles. Pre-operative mean haemoglobin was 12.2g/dl and mean platelets count was 243K. Only 14% were HIV positive. FIGO stages were 1B2 (32.6%), IIA1 (30.2%), IIA2 (27.9%) and IIB (9.3%). Mean tumour size before and after neoadjuvant chemotherapy was 5.9 cm and 2.07 cm, respectively. Thirty-eight (88%) patients underwent radical hysterectomy as planned and 5 (12%) had surgery aborted due to metastatic disease. Of those who underwent hysterectomy, 5 (13.1%) showed no residual disease on final pathology. Four (10.5%) patients had microscopic metastasis. Nine (20.9%) patients were referred for adjuvant chemotherapy and radiation. Mean time for follow-up was 21months. At follow-up, 34 (79%) patients showed no evidence of recurrence, 13.9% had documented recurrence and 6.9% were lost to follow-up.

CONCLUSIONS Neoadjuvant chemotherapy and radical hysterectomy are a feasible treatment option for locally advanced cervical cancer in low-resource settings. It can be an alternative treatment option in countries without radiation facilities if gynaecologists skilled at radical surgery are available. The addition of routine radiographic imaging, when feasible, prior to patient selection, would likely improve selection and outcomes.

Beadle B
RADIOTHERAPY ADVANCES IN HEAD AND NECK CANCER

Beadle B[1]
[1]Stanford University

MEETING ROOM 1

Thursday
7 November 2019
10:30–11:30

Radiation therapy (RT) is a highly effective treatment for head and neck cancer; it can be used for both curative and palliative treatment, depending on the extent of disease and health of the patient. Although effective, the toxicity of RT for head and neck cancer is well-established. In the short-term, patients can experience dry mouth, pain, inability to swallow, malnutrition, dehydration, and skin desquamation. The more concerning is the development of long-term side effects, which can include dysphagia, aspiration, fibrosis, cranial neuropathy, osteoradionecrosis, and carotid damage, among others. In this session, we will review the evolution of RT for the treatment of head and neck cancers. We will discuss the advances in RT, and the risks and benefits of these approaches. We will focus on both cancer outcomes and toxicity reduction with a variety of techniques, including 2-dimensional (2-D), 3-dimensional (3-D), and intensity-modulated radiation therapy (IMRT). We will discuss the key details in the transition from one technique to another, and the nuances of appropriate treatment in terms of dose, target, and technique. We will discuss how to prioritise patients for each technique, key points about contouring normal tissues and tumours, and recommendations for evaluation and follow-up of these patients, focusing on relevant information for the patients seen in low- and middle-income countries (LMICs).

Bebington B

P109 | A BROAD ASSESSMENT OF THE VARIABLES THAT DETERMINE OVERALL SURVIVAL IN SOUTH AFRICAN PATIENTS WITH COLORECTAL CANCER IN GAUTENG

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES The primary objective: describe the socio-demographic, clinical and pathological features of patients with colorectal cancer in Johannesburg, South Africa and to determine patient outcomes as defined by overall survival. The secondary objectives determine whether patient features and outcomes vary within different population groups in South Africa.

HYPOTHESIS Black patients present at an earlier age, with a different spectrum of clinical colorectal cancer, and have poorer outcomes than non-black patients.

METHODS Data from 4 academic centres are prospectively collected. Between 28 February 2015 and 31 December 2017, a total number of 359 patients are evaluated. The data pertinent to this study included profies of demography, socioeconomic status, family history of cancer, nutritional history, and behavioural risks.

Adjusted and unadjusted binary logistic regression are carried out to explore risk factors for CRC diagnosis before and after the age of 50 and Cox proportional hazards models are constructed to identify risk factors for overall survival, with Kaplan Meier curves developed to examine differences in survival by age-group, ethnicity, BMI, education, and AJCC stage.

RESULTS The sample included 521 patients. There was a significant difference in mean age across races: 53.78 years in Blacks and 59.91 years in Non-Blacks. 53.77% of patients had rectal cancer and 46.23% colon cancer. In multivariate analysis of risk factors for all patients less than 50 years, patients are significantly more likely to be:
- Black
- Smokers
- Employed
- Educated to the level of high school and are significant when compared to patients aged over 50 years. In Cox Hazards models with univariate analysis significantly poorer outcomes were seen in patients that are:
- Blacks
- Poorer educated
- Underweight/normal weight
- Advanced AJCC stage at presentation

CONCLUSION The preponderance of rectal malignancies in this sample is striking. Outcomes in patients treated for colorectal cancer in Johannesburg are significantly worsened by socioeconomic variables.

Beke M

P357 | THE RELATIONSHIP BETWEEN NEUTROPHIL LYMPHOCYTE RATIO AND SERUM CANCER ANTIGEN-125 AMONG WOMEN WITH EPITHELIAL OVARIAN CANCER IN LAGOS, NIGERIA

Beke M[1], Anorlu R[1,2], Makwe C[1,2], Amaeshi L[1]
[1]Lagos University Teaching Hospital, [2]University of Lagos

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Ovarian cancer is the second leading cause of gynaecological mortality at the Lagos University Teaching Hospital, Lagos Nigeria. The neutrophil lymphocyte ratio (NLR), a general measure of inflammation is a simple cost-effective method that has been used in both the diagnosis and prognostication of solid tumours including ovarian cancer. The objective of this study was to determine the relationship between NLR and serum CA-125 levels in patients with epithelial ovarian cancer (EOC) in Lagos.

METHODS This was a cross-sectional study in which forty-five consenting patients with suspected ovarian malignancy scheduled for staging laparotomy were recruited between April 2016 and December 2017 at the Lagos University Teaching Hospital. Blood samples were collected preoperatively for full blood counts and serum CA-125 estimations. Twenty-three patients had histologic diagnosis of EOC. NLR was defined as the absolute neutrophil count divided by the absolute lymphocyte count. Data were analysed using SPSS version 20. The correlation between NLR and CA-125 levels was determined using the Spearman's correlation coefficient. Elevated NLR was defined as a value ≥ 2.23.

RESULTS The mean age of the participants was 51.43 ± 11.08 years and 73.9% of the patients presented with FIGO stages 3 and 4 disease. Leukocyte counts ranged from 5 to 9.7 $x10^9/\mu L$, neutrophil counts ranged from 2.6 to 6.2 x $10^9/\mu l$ while lymphocyte counts ranged from 1.4 to 2.4 x $10^9/\mu l$. The median serum CA-125 level was 264 IU/L and the interquartile range was 97.3–554.4. The NLRs ranged from 1.4 to 3.6 with a median value of 2.23. There was no correlation between NLR and CA-125 (r=0.198, p=0.364).

CONCLUSION Though this study did not demonstrate any relationship between NLR and CA-125 in patients with EOC, it may however be found to be a useful biomarker in the future if subjected to further research.

Beyer K

P110 | A GEOSPATIAL ANALYSIS OF CERVICAL CANCER INCIDENCE IN THE KAMPALA UGANDA REGION

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[1]Medical College of Wisconsin, [2]Makerere University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE We sought to identify detailed spatial patterns of cervical cancer incidence in the Kampala Cancer Registry catchment area.

METHODS We established a partnership between Makerere University in Uganda and the Medical College of Wisconsin in the USA. Kampala Cancer Registry electronic records for cervical cancer diagnoses between 2006 and 2012 were augmented to include the parish and sub-county of residence at diagnosis. Two MCW medical students identified, entered and quality checked parish and sub-county geographies listed on paper records and entered them into the electronic database. Population data by age and sex was obtained from the Uganda Bureau of Statistics for all parishes in 2014. Adaptive spatial filtering was used to estimate indirectly age standardised (observed/expected) cervical cancer incidence rates continuously across the study area. High resolution maps were created to visualise spatial patterns.

RESULTS A total of 1105 records were included in analysis. Of these, 94% of records included a valid sub-county and 88% of records included a valid parish. The map reveals areas of high cervical cancer incidence in specific parts of Kawempe, Central, Nakawa and Makindye sub-counties in Kampala. Among areas revealed to have high incidence rates are the regions surrounding the Katanga Slum and a women's prison.

CONCLUSIONS There is a growing epidemic of cancer and other non-communicable diseases in sub-Saharan Africa. Targeted, specific, cost-effective strategies are needed to manage the growing burden of cancer, including geospatial analysis. Mapping cancer incidence with high geographic specificity is feasible in Uganda and reveals clear spatial patterns that can inform resource allocation and support additional research. Future work should identify causal factors associated with observed patterns of cervical cancer incidence, identify spatial patterns of additional cancers, and utilise maps to inform cancer prevention and control strategies targeting HPV vaccination and cervical cancer screening in Uganda.

Bonilla M

P235 | A STRUCTURED APPROACH TO THE DEVELOPMENT OF COMPREHENSIVE RESOURCE ADAPTED TREATMENT GUIDELINES FOR CHILDHOOD CANCERS: RHABDOMYOSARCOMA AS AN INITIAL CASE EXAMPLE

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[1]St. Jude Children's Research Hospital, [2]Children's Hospital at Erlanger, [3]Parirenyatwa Hospital, [4]Cancer Diseases Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Published adapted treatment regimens lack detailed guidance for physicians taking care of children with cancer in resource-limited settings. In response to needs at Cancer Diseases Hospital, Zambia and Parirenyatwa Hospital, Zimbabwe, we designed a novel approach to comprehensive, resource adapted treatment guideline (ATxG) development.

METHODS A two-phase approach to maximise simplicity, ensure evidence-based decision-making and generate multi-stakeholder consensus was framed. First, a three round modified Delphi was conducted to identify appropriate circumstances for early palliative referral. Thirty-three cancer sub-groups, defined using the International Classification of Childhood Cancer-3 and Toronto Staging System (TSS), were scored by treatment intention: curative intent, palliative-metronomic therapy, or pallitiative-symptomatic care only. Simultaneously, a scoping review of protocols/guidelines/regimens from the International Society of Paediatric Oncology, International Network for Cancer Treatment and Research, St. Jude (SJ), Children's Cancer and Oncology Groups, and other published country/regional regimens was completed. Using abstracted treatment data, fixed doses and cytotoxic drug schedules were standardised across solid tumor categories. Second, a three-tier review process was conducted: primary development by a SJ team; secondary review by a physician panel with regional and multi-disciplinary (paediatrics, paediatric oncology, surgery, radiation oncology, palliative care) representation; and tertiary review by external content experts.

RESULTS The approach was piloted with the development of a rhabdomyosarcoma ATxG. As both hospitals have access to radiation, surgery, and chemotherapy, all treatment modalities were included. Cytogenetics were assumed unavailable. During the review process, the TSS rhabdomyosarcoma categories of local/metastatic were further refined into six strata through inclusion of the Oberlin clinical scoring system. The final rhabdomyosarcoma ATxG includes 16 sections with appendices representing a standard ATxG template.

CONCLUSIONS With multi-stakeholder input, we successfully piloted a structured approach for ATxG development. Ongoing work includes development of 16 additional guidelines, monitoring ATxG implementation outcomes, and refinement of a clinical decision tool for mobile devices.

Bonilla M

P236 | THE ADAPTED RESOURCE AND INFORMATION APPLICATION (ARIA) FOR PAEDIATRIC ONCOLOGY GUIDELINES: BEDSIDE DECISION AID FOR PAEDIATRIC ONCOLOGY CARE

Bonilla M[1], Bhakta M[4], Chitsike I[2], Bhakta N[1], Mulindwa J[3]
[1]St. Jude Children's Research Hospital, [2]Parirenyatwa Hospital, [3]Cancer Diseases Hospital, [4]Children's Hospital at Erlanger

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Clinical decision tools are needed in settings where trainees and general paediatricians without formal paediatric oncology training are tasked with the care of children with cancer. To support healthcare workers in low- and middle-income countries (LMIC) where staffing is limited, we developed a prototype application to facilitate easy access to relevant guidelines.

METHODS A prototype clinical decision tool, ARIA, was designed using a design-based approach consisting of three steps: definition of content, prototyping and testing. The underlying design principles were simplicity of use and rapid access to evidence-based information. Content requirements were determined using data output from a multistage peer-reviewed comprehensive adapted treatment guideline initiative coordinated by members of the St. Jude Global sub-Saharan Africa Regional Program. The prototype program was developed using Microsoft Access 2012. Testing was conducted in two phases: content review from a panel of paediatric oncologists and regional review by trainees, paediatricians and paediatric oncologists in Zimbabwe and Zambia.

RESULTS ARIA is a scalable program that architecturally includes 19 tables and 15 forms linked together through 78 query-based reports and can run on any Windows-based computer. The database currently includes a total of 17 paediatric oncology guidelines and 72 treatment bundles. To facilitate user navigation, the program has a front-end menu with clickable categories. Based on user selection, curated forms provide detailed information on diagnostic evaluations, treatment summaries, roadmaps, dosage calculators for chemotherapy and antibiotics, local control guidelines for surgery and radiation oncology, toxicity monitoring/modifications and other supportive care guidance. Users can also directly print guideline-specific roadmaps and chemotherapy calendars from the program.

CONCLUSION We have created a prototype decision aid application for healthcare workers in resource limited settings designed to make clinically relevant evidence-based information rapidly accessible. Next steps include development as a mobile-friendly health application and adding additional guidelines to the database.

Bhatia R

RADIATION THERAPY CURRENT PRACTICE CAPACITY AND NEEDS ASSESSMENT IN AFRICA: AORTIC 2017 SURVEY RESULTS

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[1]Univ. of Rochester School of Med., [2]Weill Cornell College of Med., [3]Stellenbosch Univ., [4]Univ. of Pennsylvania, [5]AORTIC, [6]Henry Ford Health System, [7]Moffit Cancer Center, [8]Wake Forest Baptist Health

MEETING ROOM 4

Thursday
7 November 2019
13:30–14:30

OBJECTIVE There is a documented disparity in the distribution of radiotherapy (RT) services and professionals to address the cancer care needs across the continent of Africa. To further understand the current treatment landscape, we developed a survey to assess radiation oncology training, equipment, resources and future needs.

METHODS At the 2017 AORTIC Meeting in Kigali, Rwanda, a 37-question survey was distributed to radiation oncologists (RO), medical physicists (MP), and radiation therapy technologists (RTTs) in attendance. The survey was divided into 4 sections including: 1) Demographics and Training 2) Current Practice Capacity, 3) Future Needs, and 4) Case Vignettes.

RESULTS A total of 24 completed surveys, representing 11 countries and 15 cancer treatment centres across Africa, were analysed. The majority of respondents were radiation oncologists (19/24, 76%) a third of whom have been in practice for >10 years (6/19). The majority received training in cobalt RT (14/19, 58.3%), 3D conformal RT (14/19, 58.3%) and brachytherapy (13/19, 54.2%). Four percent (n=1) were trained in SBRT, proton, or rapid arc therapy. The median number of patients treated on a daily basis was 60 (IQR 50-100). The majority (10/15, 66.7%) of centres had a diagnostic CT scanner, 7/15 (46.7%) had a cobalt treatment machine and 9/15 (60.0%) had a linear accelerator. The most common cancers seen at their centres were cervical (24/24, 100%), breast (23/24, 95.8%), and prostate (15/24, 62.5%). For future needs, the majority of respondents believed that new machinery, an exchange program with overseas institutions, or access to educational resources would be beneficial (n=15, 65%). Over half of respondents requested training in intensity modulated RT (IMRT) (15/24, 62.5%), image guided RT (IGRT) (15/24, 62.5%), and 3D-conformal RT (14/24, 58.3%)).

CONCLUSIONS Of the surveyed respondents at AORTIC 2017, radiation centres reported a heavy patient load and comfort with treatment techniques in cobalt/3D-confromal RT. Most centres have a linear accelerator and are interested in further training in IMRT and IGRT. Future collaborations that assist with new machinery and international exchange programs are needs identified by centres to best manage their current cancer burden.

Bhuko J

P268 | IMPACT OF IMMUNOHISTOCHEMISTRY ON DIAGNOSTIC ACCURACY IN TANZANIA

Bhuko J[1], Minja C[1], Kamanga J[2], Buri I[2], Mushi M[1], Scanlan T[3], Schroeder K[4]
[1]CUHAS, [2]Bugando Medical Centre, [3]Muhimbili National Hospital, [4]Duke University Medical Centre

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES The current study evaluates the impact of immunohistochemistry (IHC) on diagnostic accuracy for pediatric cancer in Tanzania and identifies the most common biomarkers used for diagnostic differentiation.

METHODS Pathology samples for children diagnosed with cancer at Bugando Medical Centre (Mwanza, Tanzania) in 2018 were evaluated using H&E staining. Basic demographic information from histology form was recorded, including patient age, sex, and sample collection, as well as the reported histopathology results from BMC. Additional tissue from histology block was sent to Muhimbili National Hospital for IHC review. The histopathology results were compared for diagnostic agreement, change in diagnosis, and identified which reagents/biomarkers were necessary for diagnostic confirmation.

RESULTS Eighty-four paediatric cancer patients were reviewed. 50 (59.5%) were female with median age of 6 years (IQR 3-9 years). Histology concordance between H&E and IHC was 57.5%. Diagnostic specificity (e.g NHL to diffuse large B cell lymphoma) improved for 18.2% (n=15), and diagnosis was changed following IHC in 30.3% (n= 26). A total of 15 biomarkers were used to differentiate all types of pediatric cancer histology. The most commonly used biomarkers included CD20-33%, Ki67-33%, c-myc-30%, CD10-30%, BCR-ABL 24.2%, CD30-15.1%, CD15-9%, MUM1 9%, and PAX5-9%.

CONCLUSIONS Immunohistochemistry is critically important for accurate diagnosis of paediatric cancer, with over 30% of all cases identified as having treatment changing diagnoses. IHC training is critical and a limited common biomarker panel can successfully be used in low resource countries to improve treatment selection.

Clara Bicho M

LB004 | CHARACTERISATION OF VAGINAL MICROBIOTA COMPOSITION AND CORRELATION WITH HPV PREVALENCE

Carreira M[1], Matos A[2,3], Pires P[2], Pereria H[1], Cardoso C[1], Bicho M[2], **Clara Bicho M**[2,4]

[1]Clinical Chemistry Laboratory, Joaquim Chaves Saúde, [2]Instituto de Investigação Científica Bento da Rocha Cabral, Laboratório de Genética e Instituto de Saúde Ambiental, University of Lisbon; [3]University of Porto; [4]Hospital da Luz Torres de Lisboa

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES The vaginal microbiota may modulate susceptibility to human papillomavirus (HPV) and other co-infections. Therefore, we evaluate the association between these infections and vaginal microbiota.

METHODS We evaluated the vaginal bacterial composition in 111 women from a private hospital, mean age 40.7 ± 11.1 (range: 17–68 years old). Vaginal bacterial composition was characterised by deep sequencing of barcoded 16S rRNA gene fragments (V4), then categorised in community state type (CST). The cervical samples were obtained for cytology, HPV, Ureaplasma parvum, Ureaplasma Urealyticum, Mycoplasma Genitalium, and Mycoplasma Hominis detection. HPV was identified using the Roche Linear Array® HPV genotyping test, throughout PCR followed by hybridisation. The statistical methods used were Chi-square, ANOVA and binary logistic regression, and significance was attributed if $P<0.05$ (SPSS v.24).

RESULTS The majority of women had normal cytology (78.7%) and 30.9% presented HPV-positive, being 81% high risk(Hr)-HPV types. Nevertheless, 60.6% had HPV-positive among women with abnormal cytology ($P<0.001$). Hr-HPV-positive women were younger (<33 years old) compared to HPV-negative ($P=0.020$). The younger women presented abnormal cytology (54.2%) and hr-HPV-positive (44.1%, $P<0.05$). For co-infections, the Ureaplasma parvum was the microorganism more prevalent (88.8%). The vaginal microbiota composition constituted by four CSTs, the majority presented CST I (n=63, 56.8%) and CST IV-B (n=26, 32.4%), followed by 2.7% in CST II and 1.8% in CST III. The CST-IV were more frequent in older women (81.4%). Older women had a lower number of copies/mL of Lactobacillus crispatus ($P=0.001$). Finally, we found a trend for risk HPV-positive for women with co-infections and CST IV, adjusting for age (OR=2.7, 95% CI [0.9–7.8], $P=0.081$).

CONCLUSIONS These preliminary results revealed that the clearance of virus in younger ages may be preponderant in the future development of cervical injuries such as cervical cancer. The lower predominance of L. crispatus in older women may contribute to increased production of proinflammatory cytokines.

Bicho M

P034 | COMPARATIVE STUDY BETWEEN SÃO TOMÉ AND PRÍNCIPE AND PORTUGAL IN GENES RELATED TO LEIOMYOMAS DEVELOPMENT

Bicho M[1,2], Aguiar L[1,2], Carvalho A[1,2], Pires P[1,2], Caroça C[2,3], Inácio Â[1,2]
[1]University of Lisbon, [2]CUF Infante Santo, Hospital, [3]University Nova of Lisbon

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The aim of this study was to compare the populations of São Tomé and Príncipe and Portugal in genes related with folate and nitric oxide metabolisms and oxidative stress that are relevant in leiomyomas (benign smooth muscle tumours of the uterus) development.

METHODS We analysed 325 DNA samples from Portugal and 178 DNA samples from São Tomé and Príncipe. The following polymorphisms were studied: the VNTR in intron 4 at eNOS, the SNP rs1801133 at MTHFR and the GSTM1 and GSTT1 polymorphisms. The polymorphisms associated with leiomyomas were then selected. For this, a population of 159 Portuguese women with leiomyomas was used, which was compared with a control population of 459 Portuguese women. All statistical tests were performed with SPSS 24.0 software.

RESULTS In a first phase, in which associations were made between the polymorphisms studied and leiomyomas development, the following genotypes have been associated with the leiomyomas development: the CC genotype of SNP rs1801133 at MTHFR ($p<0.001$) and the positive genotype at GSTT1 ($p=0.018$). In a second phase, after the polymorphisms were selected, comparisons between São Tomé and Príncipe and Portugal were made, obtaining the following results: concerning MTHFR, the CC genotype have a higher frequency in São Tomé and Príncipe than in Portugal ($p<0.001$); in relation to GSTT1, the presence of the positive genotype is more common in Portugal when compared to São Tomé and Príncipe ($p<0.001$).

CONCLUSIONS Our results show differences in the geographical distribution of polymorphisms that potentially influence leiomyomas development. These differences may be related to different selective pressures provided by the different environments in southwestern Europe and equatorial Africa.

Bicho C

P035 | COMPARATIVE STUDY BETWEEN SÃO TOMÉ AND PRÍNCIPE AND PORTUGAL IN GENES RELATED TO CERVICAL CANCER DEVELOPMENT

Bicho C[1,2,3], Aguiar L[2,3,4], Carvalho A[3,4], Pires P[3,4], Caroça C[5], Inácio Â[2,3,4]
[1]Hospital da Luz Torres de Lisboa, [2]University of Lisbon, [3]Instituto de Investigação Científica Bento da Rocha Cabral, [4]Laboratório de Genética, Lisbon University, [5]Universidade Nova de Lisboa

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The aim of this study was to compare the populations of São Tomé and Príncipe and Portugal in genes related with folate and nitric oxide metabolisms and oxidative stress that are relevant in cervical cancer aetiology.

METHODS We analysed 325 DNA samples from Portugal and 178 DNA samples from São Tomé and Príncipe. The following polymorphisms were studied: the VNTR in intron 4 at eNOS, the SNP rs1801133 at MTHFR and the GSTM1 and GSTT1 polymorphisms. The polymorphisms that were associated with cervical cancer were then selected. For this, a population of 151 Portuguese women with cervical cancer was used, which was compared with a control population of 459 Portuguese women. All statistical tests were performed with SPSS 24.0 software.

RESULTS In a first phase, in which associations were made between the polymorphisms studied and cervical cancer, the following variants have been associated with cervical cancer development: the presence of the 4b allele of VNTR in intron 4 at eNOS ($p=0.032$) and the null genotype at GSTM1 ($p=0.031$). In a second phase, after the polymorphisms were selected, comparisons between São Tomé and Príncipe and Portugal were made, obtaining the following results: concerning eNOS, genotypes with the presence of the allele 4b have a higher frequency in Portugal than in São Tomé and Príncipe ($p=0.013$); in relation to GSTM1, the presence of the null genotype is more common in São Tomé and Príncipe when compared to Portugal ($p<0.001$).

CONCLUSIONS Our results show differences in the geographical distribution of polymorphisms that potentially influence cervical cancer development. These differences may be related to different selective pressures provided by the different environments in southwestern Europe and equatorial Africa.

BREAST CANCER AND THE SURGEON: SURGICAL PATHOLOGY

Bird P

SURGICAL MANAGEMENT OF LOCALLY ADVANCED BREAST CANCER IN A RESOURCE-POOR SETTING

Bird P[1]
[1]AIC Kijabe Hospital

PLENARY VENUE

Tuesday
5 November 2019
14:30–16:30

Over 50% of breast cancers in Kenya are locally advanced on presentation, making their management in our resource-poor setting very difficult. When possible, published protocols for managing LABC – such as those from the NCCN in the USA – are followed; however, in many cases these are unsuitable, as they are predicated on resources that are unavailable to most Kenyans. Surgery becomes a more important option due to its relatively low cost compared to other treatment modalities, such as chemotherapy, radiotherapy and biological therapies. Wide and complete excision of localised breast cancer is often the only option, so techniques and skill to do this are vital to the breast surgeon. Advances in Universal Health Coverage in Kenya show promise in improving the multidisciplinary care of these patients.

Bittaye S

CLINICAL MANIFESTATION, STAGING AND PROGNOSIS OF HEPATOCELLULAR CARCINOMA IN GAMBIAN PATIENTS

Bittaye S[1], Tekanyi M[2], Kambi A[2], Tamba S[1], Njie R[1,3]
[1]Medical Research Council, The Gambia, [2]Edward Francis Small Teaching Hospital, [3]International agency for Research on Cancer

MEETING ROOM 3

Wednesday
6 November 2019
10:30–11:30

INTRODUCTION To evaluate the clinical manifestations, staging and prognostic factors for Hepatocellular Carcinoma (HCC) in Gambian patients.

METHODS All patients with suspected HCC referred to the main liver clinic In Medical Research Council, Gambia Unit (MRCG) were recruited between December 2015 to January 2019. The diagnostic criteria was based on ultrasound demonstration of liver mass ≥ 2 cm combined with alpha-fetoprotein (AFP) level of ≥ 200ng/ml and/or histopathology confirmation. Kaplan -Meier, univariate and multivariate cox regression analysis were used to assess factors related to survival in these patients.

RESULTS Two hundred and sixty patients were recruited into the study. The mean age of HCC patient was 40 years and mostly males (80.7%). The majority were rural born (74.4%), of the Wollof tribe (26.2%) and farmer/gardener (42%). The most common constitutional symptoms were weight loss (92.3%), easy fatiguability (91.9%) while the most common gastrointestinal symptoms were early satiety (89.1%) and abdominal pain (88.7%). The most common signs were hepatomegaly (83.7%) and abdominal tenderness (44%). Multi-focal lesions were the most common on ultrasound scan(67.2%) and the median fibroelastography score was 75kpa in these patients. HBsAg carriage was present in 66.4% of HCC patients with a median AFP of 3895 ng/ml. WHO performance status 3, BCLC stage C and Child-Pugh score stage B were most common among this patient group. HBsAg-positive patients with HCC were mostly males, much younger, most likely to have abdominal pain, jaundice, dark urine, abdominal tenderness, raised transaminases and decreased platelet counts as compared to patients with HCC who are HBsAg-negative. Patients diagnosed with HCC who were HBsAg-negative tended to be older, more likely to be hypertensive and had a much better median survival (45 days vs 31 days). Both prognostic staging systems had good stratification of survival and the median survival of these patients was 35 days. Independent factors that affect survival were (i) Patient related, (sex, M vs F:p=0.022), (ii) tumour related (abdominal pain:p=0.020, oedema:p=0.003, jaundice:p=0.040, ascites: p=0.012), (iii) disease stage at presentation (child pugh scoring system,AB vs C: p=0.025) and Biochemical indices(AFP,≥ 200ng/ml:P=0.001,sodium:p=0.008, glucose p=<0.001, AST:p=<0.001 and albumin:p=0.001).

CONCLUSIONS HBV is a significant factor in HCC in The Gambia. Young males who are the main workforce are disproportionately affected, are more likely to be symptomatic and have much shorter survival. In resource limited countries were screening programmes and therapeutic interventions are limited, the prognosis and survival of patients with HCC is poor, emphasising the need for early preventive strategies.

Boateng R

ACCESS TO WHO ESSENTIAL MEDICINES FOR CHILDHOOD CANCER CARE IN GHANA: A HEALTH SYSTEM ANALYSIS OF BARRIERS AND ENABLERS

Boateng R[1], Renner L[2,3], Gupta S[1,4], Denburg A[1,4]
[1]Toronto Hospital for Sick Children, [2]Korle-Bu Teaching Hospital, [3]University of Ghana, [4]University of Toronto

MEETING ROOM 4

**Thursday
7 November 2019
10:30–11:30**

OBJECTIVE Inadequate access to essential medicines is a major contributor to poor childhood cancer survival in low- and middle-income countries (LMICs). We studied the availability and determinants of childhood cancer drug (CCD) access in Ghana to inform national health policy and facilitate public procurement efforts.

METHODS We employed a mixed-methods case study approach to analyse the determinants of CCD access in Ghana, comprised of a scoping literature review, in-depth qualitative interviews (n=21) with key health system stakeholders, and prospective collection and quantification of drug availability and price. Interviews were recorded, transcribed, coded deductively and inductively, and analysed to capture emergent themes. We determined alignment of cytotoxic and adjuvant medicines between the WHO Model List of Essential Medicines for Children (WHO EMLc) and Ghana's Essential Medicines List (NEML), and compared national buyer prices against median international prices to assess procurement efficiency.

RESULTS Encouraging generic substitution, removing taxes on imported drugs and strategic national drug procurement are among the government cost-saving strategies that address the issue of affordability. The lack of public procurement of CCD renders Ghana reliant on the private sector and highly susceptible to stock-outs. Other barriers include drug quality concerns, low childhood cancer awareness and limited financing options for medicines.

Overall, there is a 65.2% alignment between the WHO EMLc and the NEML. However, the NEML only lists nine out of the 19 cytotoxic medicines on the WHO EMLc. Approximately 59.7% of the NEML drugs had a median price ratio greater than 3 which indicates inefficiency in procurement by the private sector, especially for adjuvant medicines.

CONCLUSION Rigorous evidence on health system determinants of CCD access in Ghana can inform policies to improve childhood cancer outcomes. Our findings yield transferable insights into drug access dynamics for children with cancer and other non-communicable diseases in comparable health system settings.

PRESENTATION 847

Booth C

DELIVERY OF MEANINGFUL CANCER CARE: ACHIEVING REAL BENEFITS IN THE REAL WORLD

Booth C[1]
[1]Queen's University

MEETING ROOM 3

**Wednesday
6 November 2019
08:30—10:00**

The concept of value is increasingly recognised as an essential component in the delivery of high quality cancer care. This concept has relevance in all health systems but is particularly important in low resource settings. In the past five years there have been major initiatives by the American Society of Clinical Oncology (ASCO), the European Society of Medical Oncology (ESMO), and the World Health Organization (WHO) to identify cancer therapies that offer meaningful benefits to patients. These efforts have been complimented by the Choosing Wisely movements in India and sub-Saharan Africa. This presentation will provide an overview of how these initiatives can promote sustainable, high quality cancer care globally. Population-based cancer health services research will also be highlighted as a tool that can offer critical insights into the extent to which cancer therapies and health systems offer real benefit to real patients in the real world. Examples of such studies from LMICs will be used to illustrate potential collaborative projects that may be launched through the AORTIC network.

GENITOURINARY CANCERS

Booth C
HEALTH SERVICES RESEARCH IN UROLOGIC CANCER: CLOSING THE GAP BETWEEN EVIDENCE AND PRACTICE

Booth C[1]
[1]Queen's University

MEETING ROOM 3

Friday
8 November 2019
10:30–12:00

While data from clinical trials and recommendations from treatment guidelines define optimal care for patients with cancer, it is well known that there are often gaps between evidence and practice. There is also uncertainty regarding the extent to which patients in the general population are able to access care, the quality of care that is delivered, and whether outcomes in the "real world" are as expected based on results of clinical trials. These challenges are pervasive in all health systems but may be particularly acute in low resource settings. This presentation will review how population-level data and health services research can offer critical insights to drive health system performance and improve outcomes for patients globally. Specific examples related to urologic cancer (including bladder and testicular cancer) will be used to illustrate these concepts. Examples of studies from LMICs will also be used to illustrate potential collaborative projects that may be launched through the AORTIC network.

LIGHTNING TALKS 4: BASIC SCIENCES | BIOLOGY | BIOMARKERS; CHEMOTHERAPY | SYSTEMIC THERAPY; SURGERY | SURGICAL ONCOLOGY

Bore J

STRENGTHENING POST CHEMOTHERAPY PATIENT FOLLOW-UP USING UNSTRUCTURED SUPPLEMENTARY SERVICE DATA IN RESOURCE LIMITED SETTING

Bore J[1], Chite A[1]
[1]Academic Model Providing Access to Healthcare

MEETING ROOM 3

**Thursday
7 November 2019
13:30–14:30**

INTRODUCTION Outpatient chemotherapy is a core treatment for malignancies; however, its toxicities frequently lead to distressing side-effects ranging from mild to severe. Early detection of these side effects is vital to improved patient outcomes, decrease loss to follow-ups, decrease morbidity and improve quality of life.

OBJECTIVE AMPATH Oncology Institute proposes to implement a post chemotherapy administration follow up system using Unstructured Supplementary Service Data (USSD).

METHODOLOGY This is a communication service which is a critical piece of infrastructure used to provide mobile based information on any phone, and at low cost, hence all patient can access this service from the most basic phone without need of internet. USSD enables patients to send their post chemotherapy conditions to AMPATH Oncology care center along with their patient identification number for authentication, while enabling clinician to send responses to patients and confirm their conditions. We will start with a pre-project assessment questionnaire to both patients and Health Care Professionals, Implement the project between May 2019 and Oct 2019 and do a post-project questionnaire and have the results ready to be presented at the November 2019 AORTIC Conference.

RESULTS USSD service is almost seven times faster than SMS, and there is minimal delay between sending a query and receiving a response. This is evident by use of USSD as a mobile-based intervention to improve screening and adherence rates for TB and other medical conditions in other similar settings.

CONCLUSION Through use of USSD gateway, the system will enable clinicians to classify patients post chemotherapy conditions from the data collected as either high, moderate or low risk; which will guide in providing necessary intervention in management of adverse chemotherapy side effect. It is hoped this will increase the compliance and on-schedule chemotherapy administration as well as patient outcomes and satisfaction with responsiveness of HCP.

Botteghi M

DEVELOPMENT AND IMPLEMENTATION OF A TELEMEDICINE PLATFORM BASED ON WAIDX FOR RADIATION ONCOLOGY TRAINING AND PEER REVIEW

Botteghi M[1,2,3], Karamyan N[4], Formenti S[5], Brereton H[5], Balogun O[5]
[1]APOF Patologi Oltre Frontiera NGO, [2]Università Politecnica Delle Marche, [3]WorldConnex, [4]National Center of Oncology, [5]Weill Cornell Medicine

MEETING ROOM 4

**Friday
8 November 2019
12:45–13:45**

BACKGROUND World Aid Exchange (WaidX) is an innovative intercontinental telemedicine platform oriented to oncology specialties. This platform, devoted to reducing the digital divide on health practice, provides telecommunication services between health care facilities in developed and developing countries. It conveys the ability to safely share radiologic images and patient medical records for diagnostic and care purposes. It has been implemented in varied settings such as Tanzania, Ethiopia, Djibouti and Brazil. We recognised the need for teleconferencing with the Radiation Department of National Center of Oncology, Yerevan, Armenia, to share expertise in general patient management and contouring and planning for radiotherapy.

OBJECTIVE To develop a TeleRadiotherapy platform that enables:

1. Conference calling for tumour boards to review radiotherapy plans, discuss disease management and conduct remote quality control
2. Real-time sharing of diagnostic images to guide clinical decision making
3. E-contouring activity performed by parties in Yerevan and Weill Cornell Medicine in NY on radiographic images, with minimisation of time lag in contouring
4. Generation of a database for clinical data (i.e. radiation dose, toxicity, disease stage) that serves as a departmental registry and a tool for future research use
5. Access to lectures delivered by physicians, nurses, therapists and physicists both in Yerevan and New York on varied aspects of radiotherapy

METHODS The TeleRadiotherapy system is comprised of 2 WaidX physical units, equipped to support networking and telephony integration. An application was used to establish a simplified direct connection between mobile phones in New York and fixed phone extensions in Yerevan. A customised version of Veyon was used for remote connection to a contouring station. Zoom was used to establish the teleconference. Remote operators in Weill Cornell Medicine were trained for using the system.

RESULTS The first TeleRadiotherapy interaction with demonstration of contouring on the Oncentra treatment planning system in Yerevan revealed ease of use. The brush tool displayed less drag time than the point-by-point contouring tools. Diagnostic images were easily shared without compromise of the image resolution. Conference call quality was high. This conference has opened a series of biweekly chart rounds, between the two institutions.

CONCLUSIONS Teleradiotherapy is feasible with excellent voice quality, image sharing capability and real-time contouring. The database is under construction. We are developing a new model for learning, training and collaboration in radiotherapy using WaidX, to enable rapid knowledge and technology transfer for a more equitable access to high-quality cancer care worldwide.

Boyle P

THE AFRICAN CODE AGAINST CANCER: THE BEACON FOR CANCER PREVENTION IN AFRICA

Boyle P[1], Diop M[3], Macacu A[1], Alyanak C[1], Ngoma (on behalf of NCID Collaborative Group) T[2]
[1]International Prevention Research Institute, [2]Muhimbili University of Health and Allied Sciences, [3]Cheikh Anta Diop University

MEETING ROOM 3

**Friday
8 November 2019
12:45–13:45**

OBJECTIVE 'The State of Oncology in Africa' (2015) Report was written about cancer in Africa by Africans working in Africa. Overall, it demonstrated that the situation of cancer in Africa is critical, requiring coordinated actions for prevention. The African Code against Cancer emerged as the needed framework for a common vision of cancer prevention. It aims to reduce the risk of cancer but will also impact favourably on other diseases that share the same risk factors. The objectives of the project are to: 1) increase the evidence-based knowledge about cancer; 2) increase cancer awareness and prevention; 3) support sound public health policy with evidence-based guidelines.

METHODS The African Code against Cancer was developed through round table discussions with African oncology professionals and international colleagues working closely with Africa. It was adapted for Africa from the early versions of the European Code against Cancer.

RESULTS The African Code against Cancer contains 11 items informing people about cancer risk factors they can avoid or protect against. They address infection driven cancers, avoiding consumption of known carcinogens, and active actions reducing cancer risk.

1. Vaccinate your baby against Hepatitis B;
2. Be screened for cervical cancer at least once in your life, or every three years;
3. Make sure young girls are vaccinated against Human Papilloma Virus (HPV);
4. Practice safe sex, particularly by limiting the number of sexual partners and using a condom during intercourse;
5. Do not smoke tobacco, avoid all other tobacco products and do not stay in the presence of others who smoke;
6. Limit your consumption of alcohol
7. Avoid eating mouldy or poorly stored foods;
8. Do not put on weight as an adult
9. Walk, jog, run or take part in sports for at least 30 minutes every day
10. Breast feed your children for at least two years;
11. Avoid handling chemicals and radioactive substances without adequate protective equipment

RECOMMENDATIONS Citizens of all African countries, AORTIC members, governments and their officials, health professionals, civil society, and media need to support, adopt and disseminate the African Code against Cancer in order to help save lives.

CONCLUSIONS Based on the impact of the European Code Against Cancer, we heartily encourage the wide adoption and support of the African Code against Cancer to reduce cancer mortality.

Boyo S

P004 | THE IMPACT OF PATIENT NAVIGATORS IN IMPROVING CANCER CLINICAL CARE OUTCOMES IN AMPATH/MTRH ONCOLOGY

Boyo S[1], Chite F[1], Saina C[1]
[1]Academic Model Providing Access to Healthcare

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE The common narrative is that patients present late for treatment in sub-Saharan Africa, however, we have since established that patients see between 8–(10 different health caregivers in different periods of time and visit different health care providers before they get an accurate diagnosis. This has been attributed partly to poor referral systems and wrong diagnosis. At AMPATH/MTRH we engaged the services of patient navigators who are cancer survivors to help navigate patients right from the screening points to diagnosis, treatment and post-treatment.

METHODS

- At screening points, the navigators help in encouraging more people to get screened, as survivors the community appreciates that even with the positive diagnosis it's not a death sentence.
- For suspected malignancies, the navigators help coordinate the biopsies taken and help direct the samples to pathology labs.
- They track the results from the biopsies and in case of positive results, with the help of an oncologist they coordinate the breaking of the news to the patient, by offering moral support.
- During the treatment period they navigate the patient through triage, lab works etc. considering that the AMPATH/ Moi Teaching &Referral Hospital is one of the only two National referral health facilities in Kenya therefore very busy and complex process due to the large numbers.
- They coordinate survivorship programs.

RESULTS Lost to follow up patients has reduced at a ratio of 10:1, that is in ten patients only one is lost to follow, this is attributed to immense value added by the patient navigation system.

CONCLUSION Scaling up patient navigation system across the cancer health care facilities can result to improved clinical outcomes in cancer management, by reducing the patient turnaround time from diagnosis to starting treatment, ultimately this will lead to building a more patient-centred approach to cancer treatment.

BREAST CANCER

Brandão M

MOLECULAR SUBTYPES OF BREAST CANCER IN AFRICA: THE PROFILE OF MOZAMBIQUE

Brandão M[1,2], Guisseve A[3], Bata G[3], Lorenzoni C[3], Tulsidás S[2,3], Lunet N[2], Carrilho C[2,3]
[1]Institut Jules Bordet, [2]EPIUnit - Instituto de Saúde Pública, Universidade do Porto, [3]Maputo Central Hospital

PLENARY VENUE

**Wednesday
6 November 2019
14:40–16:30**

OBJECTIVE Data regarding breast (BC) epidemiology, clinical management and survival in Africa are scarce. We aimed to assess the distribution of BC subtypes among patients from Mozambique and their relation with clinical management and survival.

METHODS BC cases consecutively diagnosed at the three Pathology Units of Mozambique were prospectively enrolled from Jan 2015 to Aug 2017. Expression of oestrogen and progesterone receptors, overexpression/amplification of HER2 and Ki67 index were used to classify tumours into surrogate subtypes, according to the St. Gallen classification. Data on demographics, treatment, and survival of patients followed at the Maputo Central Hospital (MCH) were also collected.

RESULTS 212 patients were included: 8% presented Luminal-A, 55% Luminal-B, 13% HER2-enriched, and 25% Basal-like BC. Of these, 174 were followed at MCH: median age was 48 years; 52% were pre-menopausal; 26% HIV-positive; 55% presented with stage III and 18% with stage IV. Regarding treatment, 86% were submitted to surgery, 94% to chemotherapy, 52% to hormone therapy and 5% to radiotherapy. There were no differences in terms of age, education, place of residence, number of gestations, family history of BC, menopausal status, HIV status, histology, or stage among patients within each subtype. A nuclear grade of 3 was more frequent among Basal-like tumours (55%), as compared to the other subtypes (23%–31%). After a median follow-up of 31 months, the 24-month overall survival was 67% among Luminal-A, 75% in Luminal-B, 66% in HER2-enriched and 51% in Basal-like patients. Adjusted hazard ratio was 3.73 (95% confidence interval 1.03–13.45) for Basal-like vs. Luminal-A patients.

Among early BC patients, the 24-month disease-free survival was 60% among Luminal-A, 64% in Luminal-B, 48% in HER2-enriched and 34% in Basal-like patients (p=.321).

CONCLUSIONS Our results show a high proportion of patients with Basal-like BC. Overall, the prognosis is poor, especially among Basal-like BC patients.

Bravaccini S

P036 | EXPLORATORY STUDY OF HISTOPATHOLOGICAL CHARACTERISTICS OF INVASIVE CERVICAL CANCER IN A TANZANIAN POPULATION IN RELATION TO HPV INFECTION, TELOMERASE EXPRESSION & AMPLIFICATION

Bravaccini S[1], Ravaioli S[1], Tumedei M[1], Pirini F[1], Serra P[1], Masalu N[2], Puccetti M[3], Masini C[1], Bucchi L[1], Donati C[1], Altini M[1], Amadori D[1]

[1]Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori, [2]Bugando Medical Center, [3]Azienda Unità Sanitaria Locale Imola

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Given that little information is available on the clinical and molecular epidemiology of cervical cancer in sub-Saharan African women, we aimed to evaluate the histopathological characteristics of cervical cancer in African patients in relation to telomerase alterations and human papilloma virus (HPV) infection.

METHODS 32 Tanzanian women with invasive cervical cancer were included in the study. Histopathological classification and tissue analyses, including immunohistochemistry for telomerase reverse transcriptase (TERT) expression, were performed at the Biosciences Laboratory of Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) IRCCS (Meldola, Italy). HPV typisation was performed by pyrosequencing. The fluorescence in situ hybridisation (FISH)-based HPV-associated Cancer Test, FHACT™, was used to identify 3q26 (TERC, telomerase subunit), 5p15 (D5S2095) and 20q13 (D20S911) genetic alterations. Nonparametric ranking statistics (Mann-Whitney test) were used.

RESULTS The majority of cases analysed (75%) were squamous carcinoma and 12.5% were adenocarcinoma of the cervix. Only 4% of cases were grade 1 tumours. HPV infection was present in 26/27 (96.3%) cases. A high percentage of patients were infected with HPV 16 virus of whom 12 (46.2%) had African type 1 and 4 (15.4%) African type 2. Human (h)TERT expression evaluated in the entire case series showed a median H-score of 130 (range 3–270), and only one case was negative. 88% of samples evaluable for FISH analysis showed an amplification of the chromosomal regions 3q26 (TERC) and/or 5p15, and 20q13, which were associated with a higher median of hTERT expression (p = 0.0226).

CONCLUSIONS This preliminary study showed that cervical cancer in Tanzanian women is characterised by a very high frequency of HPV infection, with a higher prevalence of HPV 16 African type 1 and 2. Despite pre-analytical problems pertaining to sample fixation, hTERT expression analysis was feasible and the protein was more highly expressed in amplified cases.

Brignole K

DRIVING THE UPTAKE OF HPV VACCINATION AS CERVICAL CANCER PREVENTION THROUGH INNOVATIVE INTERVENTIONS AND PARTNERSHIPS

Brignole K[1], Kithaka B[2], Swanson S[3], Schryer-Roy A[4], Anand M[1], Drope J[1]
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MEETING ROOM 3

**Friday
8 November 2019
12:45–13:45**

OBJECTIVE A barrier to HPV vaccination uptake and adherence globally has been a focus on sexual transmission rather than cancer prevention. The purpose of this study is two-fold: 1. to design, prototype, and field-test messages and interventions to increase the uptake of the HPV vaccine for cervical cancer prevention using human-centre approach and behavioural science, and 2. to build an innovative cross-sectoral partnership led by a local cancer organisation to develop strategies for implementation and scale-up.

METHODS The study uses a mixed method design. A literature review and qualitative research fleshes out a robust barrier map for the uptake of the vaccine in Kenya. This is followed by a quantitative survey to understand and test themes and behaviours arising from qualitative research. The results from quantitative research are utilised to conduct rigorous cluster analysis, which will inform the development of specific audience profiles. Brainstorming sessions and feedback loops with a sample audience group are used to finalise the message and intervention prototypes. A mobile lab will test the prototypes to finalise effective interventions and recommend for scale up.

RESULTS Messages and interventions proven effective will form a social and behavioural change communications interventions package to inform and enhance the uptake of HPV vaccination during and post national rollout. These will form the basis of efforts to address current behavioural barriers and normalise HPV vaccine as cancer prevention.

CONCLUSIONS Public health programs often attempt to motivate action through information and education, but behaviour is not always rational. Research from behavioural science has shown that people significantly under-value or ignore life-changing benefits of preventive health like vaccination due to biased beliefs, mental models, and procrastination. This research will address targeted behavioral barriers in Kenya, ensure high uptake, and serve as a best practice for Kenya and like countries.

Buckle G

OPTIMAL MANAGEMENT OF OESOPHAGEAL CANCER IN AFRICA: A SYSTEMATIC REVIEW OF TREATMENT STRATEGIES

Buckle G[1], Akoko L[2], Mwachiro M[3], Mmbaga E[2], White R[3], Van Loon K[1]
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MEETING ROOM 3

**Wednesday
6 November 2019
13:30–14:30**

OBJECTIVE Oesophageal cancer (EC) portends a poor prognosis, with most patients presenting with advanced disease. Optimal management strategies for advanced EC in resource-constrained settings have yet to be established. This systematic review seeks to evaluate the literature on treatments for EC throughout Africa, including chemotherapy, radiotherapy, surgical and endoscopic interventions and to compare the efficacy and safety of varying treatment strategies for EC in this context.

METHODS We systematically searched three electronic databases (Pubmed, Embase and African Index Medicus) and conference proceedings (AORTIC, CUGH, IUCC, AARC, NCI) for studies published from 1980–2017 on treatment strategies for EC in Africa. References were reviewed with Covidence software (Veritas Health Innovation) using pre-determined eligibility criteria. Additional references were identified through manual review. The systematic review was registered with PROSPERO (CRD42017071546) and followed PRISMA guidelines. Methodological quality/risk of bias was assessed using the Cochrane Risk of Bias tool and Newcastle-Ottawa Scale.

RESULTS Of the 8,292 references identified for screening: 2,456 were from electronic databases, 5,785 conference proceedings, and 51 by manual review. Fifty-six studies met the inclusion criteria (55 articles and one conference abstract). Case series constituted the majority of studies: 14 were institutional case series reporting on multiple treatment modalities, eight on oesophageal stents, eight on esophagectomies, four on all surgeries, five on other procedures, and one on chemoradiation. Nine RCTs were identified, of which five prospectively compared different treatment modalities in this context (one investigating chemotherapy vs. chemoradiation, four evaluating rigid plastic stents vs. other treatments).

CONCLUSIONS This systematic review summarises the research on treatment of EC in Africa published over the last four decades and outlines critical gaps in knowledge related to EC management in this context. Additional research is needed on outcomes related to quality of life and evaluating self-expandable metallic stents in comparison to other treatment modalities.

Buecker R

P289 | PROGNOSTIC FACTORS TO IDENTIFY PATIENTS WHO DO NOT BENEFIT FROM PALLIATIVE RADIOTHERAPY FOR BRAIN METASTASES

Buecker R[1], Hong Z[2], Jaenke G[1], Schaefer U[1]
[1]Klinikum Lippe, [2]Xinxiang Medical University

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The presence of brain metastases of solid carcinomas is associated with a poor prognosis. Standard treatment is whole-brain radiation (WBI). However, for some patients, survival remains limited to a few weeks. The purpose of this analysis is to identify patient populations that will not benefit from WBI because of the remaining short survival time.

METHODS We analysed a total of 339 patient records with brain metastases treated with whole brain radiotherapy from January 2009 to January 2016. External beam radiotherapy techniques were used to deliver 33 Gy in 11 fractions (4 fractions per week) to the whole brain. Eight clinical factors with a potential influence on survival were investigated using the Kaplan-Meier method. All factors with a $P < 0.05$ in univariate analysis were entered into multivariate analysis using Cox regression.

RESULTS The median survival time in this series of 339 patients was 2.5 months (M; range, 0–61 months). Four identified risk factors (Karnofsky Performance Score (KPS)<70, age>70, >3 of metastases in cranial, uncontrolled primary tumour) were significant and negatively correlated with survival. Patients with no risk factors had a median survival of 4.7 M; Patients with one risk factor, 2.5 M; Patients with two risk factors, 2.3 M; and Patients with 3-4 risk factors, 0.4 M (p<0.00001).

CONCLUSION Risk factors were identified which have significant influence on the survival of patients with brain metastases. Despite WBI, patients with 3 or 4 risk factors have a very short survival time. For these reasons, this group of patients should not be irradiated.

Businge L

P169 | PREDICTORS OF CERVICAL CANCER SCREENING UPTAKE AMONG WOMEN LIVING WITH HIV IN RWANDA

Businge L[1], Nsengiyunva B[1], Murenzi G[1], Kubwimana G[1], Munyaneza A[1], Ingabire C[1]
[1]Rwanda Biomedical Center, [2]Rwanda Military Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Cervical cancer is a global health concern. Over 85% of the cases of cervical cancer occur in developing countries. Timely cervical cancer screening (CCS) can facilitate prevention of cervical disease before progression to cervical cancer among women in all settings. We sought to determine the predictors of cervical cancer screening uptake among Women Living with HIV (WLWH) in Rwanda.

METHODS Using a cross sectional design, a convenience sample was used to select 384 WLWH aged 30-50 years from four health centres in Kigali. Descriptive statistics, bivariate, and multivariable analysis were used to assess the variables and identify factors associated with CCS.

RESULTS Among 384 participants, 224 (58.3%) have been screened for cervical cancer. 311 (81%) and 279 (73%) had knowledge on symptoms and risk factors of cervical cancer respectively. Women who were screened had greater awareness of the importance of early detection and prevention, a sense of feeling at risk of developing cervical cancer, more commonly reported that a physician had recommended screening (P<0.001). Women who were not screened more commonly reported living far from screening services (P=0.007), concerns about the expense of screening (P=0.002), fear of pain from the screening procedures (P<0.001), fear of being diagnosed with cervical cancer (P<0.001), or feel no need for screening (P<0.001).

CONCLUSION Knowledge of the risk factors for cervical cancer and benefits of CCS, are associated with increased screening uptake. On the other hand, lack of access and fear related to CCS seem to negatively affect screening uptake. Integrating cervical cancer information in community health interventions is essential to increase CCS uptake.

Butera Y

P111 | EXPERIENCE OF A COMBINED SURGICAL/ONCOLOGY BREAST CLINIC IN A REFERRAL HOSPITAL: THE CASE OF RWANDA

Butera Y[1], Costas Chavarri A[2], Mugenzi P[1], Joseph L[1]
[1]Rwanda Military Hospital/University of Rwanda, [2]Boston Children's Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Rwanda Military Hospital began the first combined Oncology and Surgery breast clinic in all of Rwanda in April 2014 to address gaps in the health system. The aim of this study is to describe the characteristics of patients referred with any breast-related concerns to our clinic.

METHODS This is a retrospective study of breast-related referrals to the combined surgical/oncology breast clinic since from April 2014 to December 2018. We collected data from the files of all the patients that consulted the clinic during the study period. We reviewed, both, electronic medical records and clinic logbooks. Data was aggregated to produce descriptive analysis.

RESULTS We received a total of 1536 patients during the study period. The main presenting diagnosis were; breast mass, 1103 (72%), breast pain 304 (20%), nipple discharge 54 (3%). The remainder of patients were referred for axillary mass, nipple lesion, and breast swelling. After evaluation of the cohort and eliminating missing data, 1385 patients had a diagnosis. The most common final diagnosis was breast cancer 410 (31%), breast pain 252 (19%), and fibroadenoma 234 (17%). The remainder of the patients had a normal exam, nipple complaints, gynecomastia, skin infection, and other benign conditions. Of those presenting with breast masses (1057), 407 had breast cancer (43%), whereas 229 (24%) and 121 (13%) had fibroadenoma and normal exam respectively. Only four patients (1%) who consulted for breast pain had breast cancer.

CONCLUSIONS The volume of patients seen demonstrates that a breast clinic is a necessary and integral component of the healthcare system in LMICs, our combined Surgical/oncology approach is a model worth replicating in other low resource settings. Future goals include standardisation of referral criteria in order to improve referral patterns and appropriate patient selection.

Buyinza N

P249 | CHALLENGES AND OPPORTUNITIES FOR INTEGRATING PALLIATIVE CARE INTO HUMANITARIAN HEALTH INTERVENTIONS AMONG HEALTH CARE WORKERS IN UGANDA

Buyinza N[1]
[1]Hospice Africa Uganda

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION The overarching need for palliative care across Africa remains a mammoth task basically because priority is given to preventative and curative services. Whether refugees make a significant contribution to national economy or not, they are largely excluded from social services mainly because they are often considered either to be criminals or illegal settlers. The aim of this study was to explore health workers' Challenges and Opportunities for integrating palliative care services into humanitarian health interventions in Uganda.

METHODS This was a cross sectional qualitative study applying Focus Group Discussions with health care workers working with United Nations High Commissioner for Refugees implementing partners within refugee operational areas in Uganda. We recruited a total of 36 participants and conducted three focus group discussions with 12 participants each. Participants were stratified into three categories (Nurses, Clinical Officers and Doctors). Analysis was approached by data familiarisation, identification of thematic frame works, indexing, charting and interpretation.

RESULTS No humanitarian organisation providing health interventions among refugees were found to be offering palliative care services. This reflects the global situation where very many health workers engaged in humanitarian development are neither trained in palliative care nor offering it. Respondents experienced challenges unique to working with refugee communities including disjointed referral systems, language barrier, limited palliative care knowledge, infrastructural restrictions and limited morphine access.

CONCLUSION Findings indicate that access to palliative care services for refugees in Uganda falls far short of even the host community needs. There is need for an improved referral system, additional skilled human resource work force for palliative care, a health system strengthening approach for improved availability of oral liquid morphine and access to quality palliative care services within refugee host districts.

BETTER ACCESS TO BREAST CANCER CARE: A QUESTION OF FILLING KNOWLEDGE GAPS OR TAKING ACTION ON IMPLEMENTATION?

Cabanes A

BETTER ACCESS TO BREAST CANCER CARE: A QUESTION OF FILLING KNOWLEDGE GAPS OR TAKING ACTION ON IMPLEMENTATION?

Cabanes A[1]
[1]Susan G. Komen

MEETING ROOM 4

Wednesday
6 November 2019
13:30–14:30

Over the next two decades, breast cancer incidence and mortality will double across the globe. The negative impact on women residing in Africa will be profound if effective and affordable approaches to early diagnosis and treatment are not rapidly employed and brought to scale. Breast cancer remains a scientific challenge. There is need to build scientific capacity with local and relevant clinical research. However, it is also essential to develop strategies to put what we already know into practice, promoting novel interventions and technology that can advance breast cancer control. This session will discuss strategies to allow for more women to benefit from effective, simple, and affordable technologies or interventions. A panel of researchers and clinicians working on solving some of the current challenges will debate how to accelerate the translation of research studies in the region to public health programs. Each one will be speaking from their experience, about gaps in knowledge, innovation in care delivery, training solutions and the role of advocacy.

Cairncross L

DEVELOPMENT OF THYROID NODULE AND THYROID CANCER GUIDELINES FOR AFRICA

Cairncross L[1], Fagan J[1], Zafereo M[2]
[1]University of Cape Town, [2]MD Anderson Cancer Centre

PLENARY VENUE

Friday
8 November 2019
10:30–12:00

While international management guidelines for head and neck cancers exist, they often assume access to reliable cytology, ultrasound, CT scan, MRI and a full spectrum of oncologic treatment including radioactive iodine. However, on the African continent, many surgeons are practicing without the support of reliable diagnostic investigations or essential post-operative care after thyroidectomy such as TSH monitoring, and thyroid and calcium replacement. Therefore many international guidelines have limited value in these settings. The African Head and Neck Society (AfHNS) was established in 2016 by a group of fellowship-trained head and neck surgeons in Sub-Saharan Arica. This society recently met in Cape Town, South Africa, together with surgeons from MD Anderson, Emory, Stanford, John Hopkins, France and Denmark to develop guidelines for the management of thyroid nodules and thyroid cancer in resource limited settings. The Guidelines have systematic algorithms and suggested surgical management strategies for patients with thyroid nodules and thyroid cancer based on the local availability of cytopathology, TSH and calcium testing, thyroid and calcium supplementation, and radioactive iodine. These guidelines have the potential to improve surgical care for patients with thyroid pathology by tailoring the treatment to the safest and most appropriate strategy dependent on resource availability.

Cairncross L

SENTINEL LYMPH NODE BIOPSY IN SUB SAHARAN AFRICA: INDICATIONS, FEASIBILITY AND PRACTICE

Cairncross L[1], Malherbe F[1]
[1]University of Cape Town

PLENARY VENUE

Tuesday
5 November 2019
14:30–16:30

Sentinel lymph node biopsy (SLNB) has become standard of care for early breast cancer. SLNB has several advantages over axillary lymph node dissection (ALND) including decreased intra-operative complications, operative time, post-operative recovery and significantly decreased rates of post-operative lymphoedema. Traditionally, sentinel lymph node biopsies have been done with a dual technique including a blue dye and nuclear medicine nanocolloid. Until a few years ago, most patients undergoing SLNB required frozen section to confirm the status of the sentinel node. The need for nuclear medicine facilities and on site pathology has made SLNB biopsy inaccessible for many surgeons in Sub-Saharan Africa. New technologies in SLNB which utilise lymphophilic microparticles that are not radioactive are emerging. For example, one such technology uses iron microparticles coupled with a magnetic probe and is increasingly being used in both the developed and developing world. At the same time, indications for intra operative frozen section are changing with new practice guidelines suggesting sampling the clinically and radiologically node negative axilla without proceeding to frozen section +– ALND. These changes have the potential to make SLNB more accessible to regional and district hospitals in the Sub-Saharan context.

Cambaco O

P206 | AVALIAÇÃO DA VIABILIDADE DE INTEGRAÇÃO DA VACINAÇÃO CONTRA PAPILOMA VÍRUS HUMANO NOS PROGRAMAS DE SAÚDE ESCOLAR E DO ADOLESCENTE EM MOÇAMBIQUE

Cambaco O[1], Matsinhe G[2], Munguambe K[1,3], Sevene E[1,3]
[1]Centro de Investigação em Saúde de Manhiça, [2]Ministério da Sáude, [3]University Eduardo Mondlane

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO Estimar a viabilidade da integração da vacinação contra o Papiloma Vírus Humano (HPV) nos programas de saúde escolar e do adolescente em Moçambique.

MÉTODO O estudo consistiu em um exercício teórico que combinou um painel de discussão com os principais intervenientes do programa alargado de vacinação (PAV) com uma análise situacional dos programas existentes de saúde escolar e do adolescente e consultas individuais a decisores e formuladores de políticas e implementadores ao nível local.

RESULTADOS A abordagem mais viável a ser acoplada pela vacinação contra HPV nas escolas é a vacinação contra tétano (VAT) para abranger a faixa etária elegível (9 a 13 anos) na primeira dose. Dado que não foi identificada uma intervenção que tenha um período específico durante o ano que coincida com a segunda dose da vacinação contra HPV, a abordagem proposta deve ser complementada pelo reforço das campanhas e brigadas móveis e pela disponibilidade de vacinas nas unidades sanitárias ao longo do ano. Este modelo de integração sugere a coordenação entre os ministérios da Saúde, Educação e Desenvolvimento e o Instituto Nacional de Estatística. Caberia ao PAV o papel de implementar a vacinação ao programa de saúde escolar e do adolescente coordenar, planificar e monitorar as actividades.

CONCLUSÃO A proposta da integração da vacina contra o HPV nos programas de rotina de saúde escolar e do adolescente tem o grande desafio do calendário desta vacina não coincidir com os calendários das intervenções existentes. No entanto, constitui uma oportunidade para o PAV partilhar a responsabilidade de coordenação com outros sectores, que devem organizar-se de forma a rotinizar melhor as suas intervenções de saúde nas escolas.

Cambaco O

P207 | CONSCIENTIZAÇÃO SOBRE CANCRO DO COLO DO ÚTERO E ACEITABILIDADE DA VACINA CONTRA VÍRUS DO PAPILOMA HUMANO

Bardaji A[2], **Cambaco O**[1], Sevene E[1,3], Munguambe K[1,3]
[1]Manhica Health Research Centre, [2]ISGlobal, Barcelona, [3]Universidade Eduardo Mondlane

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVOS Avaliar a conscientização sobre o cancro do colo do útero e infecção por vírus papiloma humano e a aceitabilidade antecipada da vacina contra o vírus papiloma humano entre adolescentes.

MÉTODOS Um estudo quantitativo transversal foi realizado em três distritos de Moçambique (Manhiça, Kha-Mavota e Mocímboa da Praia) antes do primeiro ciclo de vacinação contra o vírus papiloma humano. O estudo teve como alvo adolescentes de 10 a 19 anos identificadas em escolas e comunidade. Entrevistas estruturadas foram conduzidas para avaliar o conhecimento sobre o cancro do colo do útero, prevenção do vírus papiloma humano e a aceitabilidade de vacinar contra o vírus papiloma humano.

RESULTADOS Um total de 1147 adolescentes foram selecionadas. Quando perguntadas se aceitariam ser vacinadas se uma vacina estivesse disponível em Moçambique, 91% (1025/1130) das meninas responderam positivamente, sendo o centro de saúde identificado como espaço preferido pelas meninas adolescentes para serem vacinadas. Factores associados a aceitabilidade foram: idade, nível de escolaridade, e conhecimento prévio sobre cancro do colo do útero e sua prevenção.

CONCLUSÃO O estudo antecipou uma alta aceitabilidade de vacinar contra o vírus papiloma humano entre as adolescentes. Estes resultados sugerem que os programas de educação em saúde são crucias para a aceitação de novas ferramentas para prevenir o cancro do colo do útero, e se encorajam para avançar na redução da mortalidade e morbidade relacionada ao cancro do colo do útero em Moçambique.

Sevene E

P208 | ESTABELECIMENTO DE UM SISTEMA DE VIGILÂNCIA DE EFEITOS ADVERSOS PÓS VACINAL NO ÂMBITO DO PROGRAMA DE DEMONSTRAÇÃO DA INTEGRAÇÃO DA VACINAÇÃO CONTRA HPV NOS PROGRAMAS DE SAÚDE ESCOLAR E DO ADOLESCENTE EM MOÇAMBIQUE

Sevene E[1,3], Cambaco O[1], Matsinhe G[2], Munguambe K[1,3]
[1]Manhica Health Research Centre, [2]Ministério da Sáude, [3]Universidade Eduardo Mondlane

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVOS Este estudo teve como objectivo estabelecer um sistema de vigilância para garantir a monitoria de eventos adversos após a imunização com a vacina contra o HPV.

MÉTODO A implementação do sistema de monitoria de eventos adversos decorreu em simultâneo com a administração da vacina. Foram usados três métodos de notificação dos eventos: notificação espontânea; vigilância activa de eventos adversos graves (SAE) e eventos adversos de interesse especial (AESI) e uso de uma linha radiofónica (Alô vida) para sensibilizar os vacinadores e vacinados sobre o programa e os meios de comunicação em caso de evento de adverso. Foi definido um fluxo de comunicação e referência tendo em conta que a vacinação ocorria na escola, foram formados os profissionais da saúde e da educação na detecção dos casos e foram distribuídas fichas de notificação de eventos adversos. As escolas e as unidades sanitárias receberam termómetros para registo de febre pós vacinal. Um inquérito pós-introdução da vacina foi realizado.

RESULTADOS Foram treinados 67 profissionais de saúde e educação na detecção de casos de eventos adversos. Do total das 6.945 doses de vacina contra HPV administradas em 2014 no distrito da Manhiça um evento adverso grave foi notificado de acordo com o protocolo estabelecido. O caso foi revisto e foi confirmado caso de malária grave e classificado como não relacionado com a vacina. No inquérito pós-introdução 3 adolescentes referiram eventos ligeiros (dor no braço até 7 dias após a vacinação) e os profissionais de saúde referiram 2 casos de AESI, ambos não relacionados com a vacina, sendo que um coincidia com o registado no sistema. Não foi reportado rumor relativo a ocorrência de eventos adversos.

CONCLUSÃO O sistema estabelecido permitiu a notificação de um evento adverso grave não relacionado com a vacina. Os eventos adversos ligeiros não foram notificados. Há necessidade de reforçar o sistema de monitoria de eventos adversos a vacinas, pois um dos casos de AESI não foi notificado. Métodos inovadores podem ser úteis para melhor educação e comunicação sobre os eventos adversos como foi o caso do uso da linha "Alô vida".

Munguambe K

P209 | EXAMINANDO AS PERCEPÇÕES DO CANCRO DO COLO DO ÚTERO SOB PERSPECTIVA DE SAÚDE SEXUAL E REPRODUTIVA NO DISTRITO DA MANHIÇA, MOÇAMBIQUE

Alonso Y[1], Cambaco O[1], Mindu C[1], Matsinhe G[2], Sevene E[1,3], **Munguambe K**[1,3]

[1]Centro de Investigação em Saúde da Manhiça, [2]Ministério da Saúde, [3]Universidade Eduardo Mondlane

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO Avaliar em que medida as percepções leigas do CCU se alinham com o conhecimento biomédico do ponto de vista de saúde sexual e reprodutiva.

MÉTODOS 10 Discussões em Grupos Focais (DGF) foram realizadas com 10 grupos-alvo variados (de meninas adolescentes a vendedores informais de fármacos). No total participaram 116 respondentes. A DGF foi usada para obter informações verbais e desencadear debates em torno de crenças e atitudes sobre o cancro do colo do útero (CCU), bem como para explorar noções de transmissão e etiologia da doença. As discussões foram gravadas para posterior transcrição e análise, seguindo uma combinação de análise de conteúdo e temática.

RESULTADOS Os participantes estavam familiarizados com o termo biomédico "cancro do colo do útero", mas o conhecimento de sua etiologia e transmissão era limitado. O CCU foi prontamente associado à transmissão sexual e a infecções sexualmente transmissíveis, e foi concebido como uma "ferida que não cura". O termo "cancro" causou confusão, pois foi percebido como ocorrendo apenas na pele e nos membros (posteriores e inferiores), entendido como hereditário, não transmissível e como uma doença do Ocidente.

CONCLUSÃO As percepções leigas de CCU alinham-se em grande parte com as biomédicas. No entanto existem noções pré determinadas sobre o cancro em geral, que distanciam as pessoas de se identificarem com a doença. Não obstante, há um terreno comum para enquadrar futuras intervenções de controle do CCU do ponto de vista da saúde sexual e reprodutiva.

Casper C
ENABLING AFFORDABLE IMMUNOTHERAPY FOR AFRICA

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[4]Cornell University Medical College

MEETING ROOM 4

**Friday
8 November 2019
08:30–10:00**

OBJECTIVE Treatment of cancer with immunotherapy has been associated with extraordinary improvements in survival in resource-rich regions. The most commonly used immunotherapeutic strategies currently include relief of checkpoint inhibition or adoptive cell therapies. The uptake of these strategies as a treatment for cancer in sub-Saharan Africa (SSA) has been limited by the prohibitive cost of the therapies, and unique toxicities that are challenging to manage in resource-limited settings.
METHODS Several new immunotherapeutic options are emerging that may be more cost effective to deliver and associated with fewer severe toxicities, and thus more appropriate for use in SSA. These include increasing the immune response to tumour antigens through the intra-tumoural administration of innate immune stimulating molecules (agonists of Toll-Like Receptors 3, 4, 7/8 and 9, as well as the Rig-I and STING pathways), or vaccination with neoantigens and novel delivery systems that induce robust cytotoxic and humoral immune responses (self-adjuvanting / self-amplifying RNA replicons delivered with nanostructured lipid carriers).
RESULTS IDRI has transferred this technology to regions where the cancer burden is greatest (i.e. South Africa, India, Brazil, and Korea), with production costs that allow for reasonable pricing for low- and middle-income countries. We have launched a Global Cancer Initiative, with a mission of developing scientifically-novel, resource-appropriate, and locally sustainable cures for the most common cancers in low- and middle-income countries. We will share data supporting the use of these novel immunotherapies for reducing the burden of the most common cancers in women and children in SSA (cervical, breast, lymphoma, and Kaposi Sarcoma).
CONCLUSIONS The delivery of innate immune stimulators and RNA replicons, made locally in SSA, can offer a potential solution to bringing the benefits of immunotherapy to people with cancer in the region in a way that potentially is financially feasible, minimally toxic, and highly effective.

Chaila M

LB023 | INTEGRATING HPV TESTING FOR CERVICAL CANCER SCREENING IN WOMEN LIVING WITH HIV (WLHIV) IN ZAMBIA

Chaila M[1], Sichamba S[1], Chanda D[1], Matambo J[2], Chanda S[1], Ojok D[2], Kapambwe S[1]
[1]Ministry of Health, [2]Centre for Infectious Disease Research in Zambia

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION Cervical cancer remains the most frequent cancer in Zambia accounting for over 30% of new cancer cases annually. It is also the most common cause of death for cancer in the country. Women living with HIV (WLHIV) are 4–5 times more at risk of developing cervical cancer. Zambia has an estimated 345,000 WLHIV aged between 25–49 years old. The Ministry of Health (MoH) in Zambia, established the national cervical cancer screening program in 2006 using the Visual Inspection with Acetic Acid (VIA) with enhanced digital cervicography. To date over 600,000 women have been screened at least once in their lives of which only about 20% are WLHIV. Zambia has made progress in integrating Human Papilloma Virus (HPV) DNA testing for cervical cancer in WLHIV.

AIM To integrate HPV DNA testing in cervical cancer screening for WLHIV in Zambia.

METHODS The government through the MOH held a series of meetings with key stakeholders, including the Ministry of Health and Wellness from Botswana. Botswana through Jhpiego conducted a feasibility study on self-collection of the samples for HPV DNA testing for cervical cancer screening. Their lessons were shared and adapted to fit the Zambian context.

RESULTS PEPFAR funded implementing partners identified funds from within their budgets to support this initiative. A stakeholder engagement meeting was held to develop guidelines (including tools for M&E) for HPV DNA testing for cervical cancer screening. A training for cervical cancer screening providers was held for 4 of the 10 provinces in Zambia. Procurement of consumables was initiated through the Centre for Infectious Disease Research in Zambia (CIDRZ) central laboratory. Validation of the Hologic Panther to support the GeneXpert as primary tools for DNA were initiated. Screening expected to initiate in August 2019 (two months after HPV vaccination for 14-year-old girls to prevent cervical cancer will start)

CONCLUSION It is possible to integrate HPV DNA testing for cervical cancer screening in WLHIV in a country like Zambia where there is strong government commitment, coordinated approach with implementing partners and support from other governments within the sub-region.

Chaila M

POLICY DEVELOPMENT FOR UNIVERSAL HEALTH COVERAGE IN CANCER & PALLIATIVE CARE: LESSONS FROM ZAMBIA

Chaila M[1], Kapambwe S[1]
[1]Ministry of Health

MEETING ROOM 4

Thursday
7 November 2019
10:30–11:30

INTRODUCTION Zambia, had an estimated 136.2 per 100,000 age-standardised incidence rate for all cancers, in both sexes and all ages. This is translated to about 12,052 new cases of cancer per year. Cervical cancer remains the most common cancer in Zambia with an estimated 3000 cases annually. Unfortunately, most of our patients present late, hence the need to improve and integrate cancer screening and palliative care (PC) services at all levels of health care delivery. Zambia has in recent years made significant strides in the integration of PC within the existing health system. She is committed to achieving universal health coverage across all spectra of health care.

AIM To create a policy environment that encourages the development of cancer and palliative care in Zambia.

METHODS The government through the MOH held a series of meetings with key stakeholders, including professionals, cancer & PC specialists that formed the technical working group.

RESULTS The Cancer Disease Hospital (CDH) was opened in 2007 and further expanded to 252 bed capacity in 2016. The first draft of the National Palliative Care Strategic Framework (NPCSF) was developed in 2012. Zambia developed the 2016–2021 National Cancer Control Strategic Plan prioritising 4 cancers (cervical, prostate & breast cancers and retinoblastoma) and palliative care. On PC, the strategy aims to; develop an effective PC service at all levels of the health care system and complete and implement the NPCSF. Hospices were saved from closure as a result of inadequate funding from international donors, as the MOH provided direct funding to support hospices and placed medical personnel on the government payroll to provide care. Government with support from partners expanded the cervical cancer screening programme. The government continued to support the training of health care workers in radiation-oncology and palliative care. In 2015, Zambia hosted the Malawi-Zambia-Finland (MaZaFi) Nursing, Cancer and Palliative Care Conference. The First Lady of the Republic of Zambia was Guest of Honour. The Zambian government has continued to create funded PC specialist positions for medical doctors and nurses within its establishment. To improve health care financing, in an attempt to reach universal health coverage, Zambia signed into law the National Health Insurance Act in 2018

CONCLUSION It is possible to integrate cancer care and palliative care services within the health systems in a country like Zambia due to the strong government will and institutional frameworks and policies that support its integration.

Chambuso R

TUMOUR BIOPSY DNA SHOWS SEVERE CHROMOSOMAL LOSS OF HETEROZYGOSITY AND MICROSATELLITE INSTABILITY AT THE HLA CLASS II LOCUS IN HIV/HPV CO-INFECTED CERVICAL CARCINOMAS

Chambuso R[1], Kaambo E[2], Denny L[1], Gray C[1], Williamson A[1], Agenbag G[1], Ramesar R[1]
[1]University of Cape Town, [2]University of Namibia School of Medicine, Windhoek, Namibia

MEETING ROOM 3

**Wednesday
6 November 2019
13:30–14:30**

BACKGROUND A subset of women who are co-infected with human immunodeficiency virus type 1 (HIV) and human papillomavirus (HPV) progress rapidly to cervical disease regardless of high absolute CD4 counts. Chromosomal loss of heterozygosity (LOH) and microsatellite instability (MSI) are the most common early genetic alterations to occur in solid tumours. Loss of an allele or part of a chromosome can have multiple functional defects on immune response genes and tumour suppressor genes. To characterise genetic alterations that can influence rapid tumour progression in HIV infected women, we compared the extent of LOH and MSI at the HLA II locus on chromosome 6p in cervical tumour biopsy DNA with regard to HIV/HPV co-infection in South African women.

METHODS A total of 164 women with cervical disease were recruited for this study. 74 were HIV positive and 90 were HIV negative. DNA from tumours and from buccal swabs were used for analyses. Chromosomal single locus assay by capillary array electrophoresis DNA microsatellites analyses was used to study LOH and MSI with six fluorescently labelled oligonucleotide primers in a multiplex PCR amplification.

RESULTS Tumours from HIV/HPV co-infected women demonstrated more LOH/MSI than tumours from HIV-negative women at 6p21.21 (42.6% versus 74.2%; $p=0.001$), 6p21.31 (42.9% versus 78.3%; $p=0.002$), 6p21.32 (57.1% versus 79%; $p=0.035$), and 6p21.33 (29.4% versus 64.3%; $p<0.001$).

CONCLUSIONS HPV infection alone can influence the severity of LOH/MSI in cervical tumours, whereas HIV co-infection exacerbates it to influence the rate of cervical disease progression in HIV-positive women.

Changule D

LB008 | SURGICAL TREATMENT OF CERVICAL CANCER IN MOZAMBIQUE: PERFORMANCE OF RADICAL HYSTERECTOMIES BY THE MOZAMBICAN GYNECOLOGISTS, AT MAPUTO CENTRAL HOSPITAL

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[1]Hospital Central de Maputo, [2]University of Texas

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE To evaluate the evolution and prognosis of patients submitted to radical hysterectomy in Maputo Central Hospital (HCM), taking into account the clinical-histopathological characteristics and the stage of cervical cancer.

METHODS In 2016 at HCM, the training of Mozambican doctors in the oncology área began, in the Department of Gynecology and Obstetrics are still being trained tree doctors for prevention, early diagnosis, surgical treatment and paliation of gynecological cancer, in this context, the accomplishment of this type of complex surgiries requires specific training in the field, which is provided to Mozambican Gynecologists by oncological surgeons members of the International Gynecological Cancer Society, within the framework of the global training curriculum in gynecological oncology;

RESULTS The tree gynecologists performed their first radical hysterectomy in August of 2018, at the moment they have exclusively performed a total of 15 radical hysterectomies, in a patients with cervical cancer in the initial stage, from IB1 to IIA2, part of these patients benefit of chemotherapy as adjuvant treatment;

CONCLUSION The offer of care to patients with gynecological cancer has notorious advances in recent years at Mozambique, since the Mozambican Gynecologists are now able to perform radical hysterectomies, which is a very important tool in the treatment of this type of pathology.

Chao C

P358 | UNDERSTANDING WOMEN'S AWARENESS, PERCEIVED RISK, AND CARE-SEEKING FOR BREAST CANCER IN MWANZA, TANZANIA

Chao C[1], Huang L[1], Visvanathan K[1], Mwakatobe K[2], Masalu N[3], Rositch A[1]
[1]Johns Hopkins Bloomberg School of Public Health, [2]Tanzania Breast Cancer Foundation, [3]Bugando Medical Centre

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE As Tanzania continues to develop clinical programs to combat the increasing breast cancer incidence, understanding women's perspectives on breast cancer and care-seeking are key to successful cancer control.

METHOD A community-based survey was administered to conveniently sampled women aged 30 and older to assess awareness and knowledge of breast cancer and perspectives on care-seeking.

RESULTS Among 1,129 women, median age 37 (IQR: 31–44), 59% of women have heard of breast cancer, 16% have been checked for breast cancer, and 10% have received previous breast health education. Women self-evaluated their knowledge of breast cancer (from 1-none to 10-extremely knowledgeable) with a median response of 3 (IQR: 1–4). Only 14% felt they knew any signs or symptoms of breast cancer. Encouragingly, 56% of women were fairly-to-very confident they would notice personal breast changes, with 24% of women practicing self-breast examination. Overall, 74% said they'd be somewhat-to-very likely to seek care if they noticed a change, with 96% noting severity of symptoms as a motivator. However, fear of losing a breast (40%) and fear of a poor diagnosis (38%) were most frequent barriers to care seeking. In assessing knowledge of risk factors, about 50% of women did not know any presented risk factors whereas 42% of women believed long term contraceptive use a risk factor but 37% and 35% of women did not think that family history or being older were factors, respectively.

CONCLUSION The success of efforts to improve early diagnosis depends on women being aware of breast cancer signs and symptoms, risks, and ultimately seeking care for concerns. Fortunately, most women said they would seek care if they noticed a change in their breasts, but the low levels of cancer knowledge, symptoms, and common risk factors highlight the need for targeted community education and awareness campaigns.

Chasimpha S

P359 | PATHWAYS TO BREAST CANCER DIAGNOSIS FOR WOMEN IN AFRICA, DOES HIV MATTER? A MULTI-COUNTRY COHORT STUDY

Chasimpha S[1], Tapela N[2,5], Foerster M[3], McCormack V[1,3], Silva I[1], ABC-DO Team[4], BCPC Team[5]
[1]London School of Hygiene and Tropical Medicine, [2]University of Oxford, [3]International Agency for Research on Cancer, [4]African Breast Cancer-Disparities in Outcome Study, [5]Botswana Prospective Cancer Cohort

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE The number of HIV-infected breast cancer (BC) patients in Africa is increasing, partly due to long-term survival with expanded access to anti-retroviral therapy. We examined the effect of HIV status on pathways to BC diagnosis with a view to informing down-staging strategies.

METHODS A multi-country (Namibia, Nigeria, South Africa, Uganda and Zambia) hospital-based BC cohort study was recruited in 2014–2017. Women diagnosed with BC were interviewed to determine key dates in their pre-diagnostic journey. Time to diagnosis (TD) was estimated from self-reported date when a woman first recognised BC-related symptoms to date of diagnosis. We employed logistic regression to investigate correlates of delayed TD (i.e. $\geq$3 versus <3 months).

RESULTS Among 1,506 women included in preliminary analyses, median TD was 7 (IQR=3–19) months, with 75% patients having TD $\geq$3 months. HIV+ patients (150 (10%)) were younger (mean age=46 (SD=9) years) than HIV-/unknown patients (mean=51; SD=14) (p<0.0001). In crude analyses, longer delays to diagnosis were experienced by women who were HIV+ (odds ratio (OR)=1.50; 95% CI: 0.98–2.31), from Uganda, Black, with no formal education, unemployed, not currently married, rural residents, than their counterparts (p<0.05 for all). Having never heard of BC, lower BC knowledge and not believing BC is curable were also associated with longer delays to diagnosis (p<0.01 for all). In mutually-adjusted analyses restricted to Black women, HIV status was no longer associated with TD (aOR=1.35; 95% CI: 0.85–2.14); only being uneducated (aOR=1.86; 95% CI: 1.08–3.23) and being from Uganda (aOR: 2.30; 95% CI: 1.40–3.78) were found to be associated with longer delays to diagnosis.

CONCLUSIONS In a large study of HIV and BC, we found substantial delays in BC diagnosis. However, HIV-status was not independently associated with time to diagnosis. Final analyses will include additional data from Botswana Prospective Cancer Cohort (BPCC), and will examine HIV treatment status.

Chesumbai G

P329 | BARRIERS TO EFFECTIVE CANCER SURVEILLANCE IN SUB SAHARAN AFRICA

Chesumbai G[1,3], Buziba N[2,3]
[1]Ampath Oncology Institute, [2]Moi University School of Medicine, [3]Eldoret Cancer Registry

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To determine barriers to cancer surveillance in sub-Saharan. Africa (SSA).

METHODS During a three-week cancer registration training in March 2019, in Eldoret, Kenya, 16 cancer registries from SSA were represented. Each cancer registry (CR) was instructed to list the barriers experienced in their cancer registries in the course of cancer surveillance. These were presented and discussed among all participants. Of the 16 CRs, 10 were population-based Cancer Registries (PBCRs) and 6 were Hospital Based Cancer Registries (HBCRs). The data presented was from PBCRs only. Responses were grouped into similar themes and tabulated based on frequency of occurrence.

RESULTS The PBCRs registered similar barriers as follows; Inconsistent funding; lack of or unimplemented government policy on cancer; Inadequate staffing; Poor medical records in health facilities; Lack of adequate basic infrastructure; Denied access to health facilities for cancer data collection; Politics; and a lack of ownership of the cancer registry. The most prevalent themes were Inadequate Staffing at 100% while, Inconsistent funding; lack of or unimplemented government policy on cancer followed at 90%, Poor medical records in health facilities; Lack of adequate basic infrastructure; were a challenge for 70% of the CRs while other themes scored less than 20%.

CONCLUSION Cancer surveillance being a continuous process and a critical pillar for cancer control efforts in SSA, needs to be coined and implemented inform of policy or act of parliament and supported through the ministries of health and consistent government budgetary allocation. This is lacking in most SSA countries. Technically, this would solve the major barriers experienced by cancer registries by a huge margin. Proper record keeping practices in health facilities remains to be a challenge, electronic medical records systems adoption should be looked into as a means to improved quality and consistency of output in support for proper documentation in cancer surveillance. A lack of fully dedicated staff or in other cases inadequate staff ultimately impacts on the quality and timeliness of data measures should be put in place in terms of sensitisation and advocacy for stakeholders to understand the importance of cancer surveillance in the fight against cancer.

Chigbu C

P211 | EFFECT OF POPULATION CERVICAL CANCER SCREENING USING VISUAL INSPECTION WITH ACETIC ACID "SEE AND TREAT" APPROACH ON POPULATION BURDEN OF CERVICAL PRE-CANCERS

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[1]University of Nigeria, [2]Federal Teaching Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To determine the effect of population cervical cancer screening using visual inspection with acetic acid (VIA) plus immediate cryotherapy on the population burden of cervical pre-cancers.

METHOD This was a prospective pragmatic population intervention study. The intervention was population cervical screening with VIA and immediate treatment of VIA positive cases with cryotherapy'. Four rural communities in two states of southeast Nigeria were selected through a multistage random selection process. The women were screened with VIA. Women who tested positive to VIA were offered immediate cryotherapy or large loop excision of transformation zone (LLETZ) based on predetermined eligibility criteria. Cervical biopsies were taken before cryotherapy to confirm the presence of high grade squamous intraepithelial lesions. Participants were re-screened 1 year later. Main outcome measure was population prevalence of high grade cervical squamous intraepithelial lesion (HSIL) before and after intervention. McNemar Chi square was used to compare the proportions.

RESULTS A total of 653 women participated in the study. The population prevalence of all grades of cervical SIL before the intervention was 8.9%. The prevalence 1 year later was 1.4% ($p < 0.0001$). The population prevalence of high grade SIL reduced from 4.1% preintervention to 0.5% at 1-year postintervention ($p < 0.0001$).

CONCLUSIONS Population cervical cancer screening using VIA plus immediate cryotherapy for positive cases leads to significant reduction in the population burden of cervical pre-cancers. The results of this study, which represents the first to evaluate the impact of VIA-cryotherapy screening model on real-time population burden of histologically confirmed HSIL, shows that the model is effective for large scale population prevention of cervical cancer in low-income populations.

Chinegwundoh F

SURGICAL INNOVATIONS IN GENITOURINARY CANCERS AND CHALLENGES IN IMPLEMENTATION IN AFRICAN COUNTRIES

Chinegwundoh F[1]
[1]Barts Health

MEETING ROOM 3

Friday
8 November 2019
10:30–12:00

Genitourinary cancers are common cancers. They include prostate, bladder, renal and testis cancers. Surgical management has evolved in the past 20 years, particularly with the advent of robotic surgeries. Other surgical technologies include cryoablation, high intensity focused ultrasound. Improvements in diagnostics such as multiparametric MRI scanning help guide surgery. Challenges in implementation include the cost of technologies, training, device company support, infrastructure amongst others. A proposal would be to have regional centres where patients can be directed to access the expertise.

Chinula L

P170 | A NOVEL CERVICAL CANCER SCREEN-AND-TREAT DEMONSTRATION PROJECT WITH HPV SELF-TESTING AND THERMOCOAGULATION FOR HIV-POSITIVE WOMEN IN MALAWI

Chinula L[1,2,3], Gopal S[1,2,4,5], Tomoka T[1,4], Varela A[1], Saidi F[1], Chagomerana M[1,4], Smith J[4], Tang J[1,2,3]
[1]UNC Project – Malawi, [2]University of Malawi College of Medicine, [3]UNC Dept of Ob-Gyn, Division of Global Women's Health, [4]UNC Schools of Medicine, [5]UNC Lineberger Comprehensive Cancer Center

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Malawi has among the highest rates of cervical cancer in the world. Since 2004, Malawi has implemented a screening program using visual inspection with acetic acid (VIA) and cryotherapy. However, population coverage is suboptimal and missed treatment of VIA-positive women is common. We will evaluate the feasibility and performance of a novel HPV-based cervical cancer preventive strategy among HIV-positive women in Malawi: self-sampling for HPV testing, same-day VIA for HPV-positive women, and thermocoagulation for ablation-eligible women by colposcopy.

METHODS Between June 2019-May2020, we will enrol 625 eligible HIV-positive women, collect socio-demographic and reproductive health data, and perform testing for pregnancy, CD4+ counts and HIV-1 RNA. We will instruct women to self-collect a vaginal brush for GeneXpert HPV testing. HPV-negative women will continue with routine screening. HPV-positive and every 10th HPV-negative woman will complete same-day VIA, colposcopy with cervical biopsies and endocervical currettings (ECC) if VIA-positive, and thermocoagulation if ablation-eligible by colposcopy. VIA-negative women will undergo colposcopy, cervical biopsies and ECC if abnormal colposcopic findings, and thermocoagulation if ablation-eligible. If colposcopy is normal, a cervical smear and ECC will be collected. Women who undergo thermocoagulation and have CIN1+ will have HPV testing, colposcopically-directed biopsies or smear and ECC performed at week 24 post-treatment.

RESULTS Study outcomes will include the proportion of: a) HPV-positive women who have VIA same-day; b) ablation-eligible women by colposcopy who have thermocoagulation same-day; c) HPV-positive/VIA-positive/ablation-eligible women who would have been treated with thermocoagulation (without colposcopy), but were found to have no CIN2+ (overtreatment rate); d) women with CIN2+ who would have not been treated or referred (undertreatment rate); and 24-week cure rate of CIN2+ among women treated with thermocoagulation.

CONCLUSION This study will provide essential data regarding the feasibility and performance of an HPV-based cervical cancer preventive strategy, and thermocoagulation efficacy, among HIV-positive women in Malawi.

Chipidza F

P270 | ACCURACY OF PATHOLOGIC DIAGNOSIS IN PATIENTS WITH LYMPHOMA: A PROSPECTIVE ANALYSIS FROM BOTSWANA

Chipidza F[1], Nkele I[2], Sohani A[1], Kayembe A[2], Efstathiou J[1], Chabner B[1], Dryden-Peterson S[3]
[1]Massachusetts General Hospital, [2]Botswana Harvard AIDS Institute, [3]Botswana Ministry of Health, [4]Brigham and Women's Health & Harvard School of Public Health

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE With an intense HIV epidemic, Hodgkin and non-Hodgkin lymphomas are common cancers in Botswana. However, subtype diagnosis is challenging in resource-constrained pathology labs. We sought to analyse the diagnostic accuracy of specimens classified as lymphoma.

METHODS We prospectively collected data from 70 adult patients, who were diagnosed with either classic Hodgkin's Lymphoma (CHL) or non-Hodgkin's lymphoma (NHL) and treated at 3 large hospitals in Botswana between 2010 and 2016. Initial pathologic review in Botswana relied on histology with sporadic access to immunohistochemistry. Secondary pathologic review with additional staining was performed by a hematopathology's at Massachusetts General Hospital (MGH), USA and was considered the gold standard.

RESULTS In total, 70 patient specimens were analysed, 42 (60%) of whom were originally classified as NHL and 28(40%) as HL. On secondary review at MGH, 47(67%) were determined to be NHL, and 20(28%) as HL. The overall reclassification rate among all cases 19 (27%). By subtype, 6 cases that were diagnosed as diffuse large B-cell lymphoma (DLBCL) at MGH, had been diagnosed as CHL in Botswana. Three additional cases initially classified as CHL, were determined to be follicular lymphoma, large cell lymphoma, and poorly differentiated neoplasm at MGH. Eight cases diagnosed as DLBCL in lymphoma were determined to be plasmablastic lymphoma (3), Burkitt's Lymphoma (3), small lymphocytic lymphoma (1) and peripheral T-cell lymphoma (1) following MGH review. One case of mantle cell lymphoma was reclassified as small lymphocytic lmphoma and an additional specimen classified as reactive lymphoid hyperplasia was diagnosed as peripheral T-cell lymphoma at MGH. None of the three cases of Burkitt's lymphoma were detected in Botswana.

CONCLUSIONS More than a quarter of lymphoma cases were misclassified in this single prospective cohort. Limited access to molecular pathologic methods impairs treatment decisions and patient outcomes.

Kawonga M

**P212 | BELIEFS AND PERCEPTIONS REGARDING CERVICAL CANCER AND
SCREENING ASSOCIATED WITH PAP SMEAR UPTAKE IN JOHANNESBURG:
A CROSS SECTIONAL STUDY**

Chisale Mabotja M[1], Levin J[1], **Kawonga M**[1]
[1]University of Witwatersrand

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

BACKGROUND Cervical cancer is a major global public health concern, with 85% of cases occurring in low- and middle-income countries. In South Africa, it is the second most common cancer amongst women. This research determines the associations between women's beliefs about cervical cancer and screening and the uptake of Pap smears in Johannesburg, where cervical screening uptake is suboptimal.

METHODS This cross-sectional analytical study applied a validated measurement scale based on the Health Belief Model (HBM), to describe health beliefs regarding cervical cancer and screening using an interviewer-administered questionnaire among 280 women aged 30 years and older attending Johannesburg primary healthcare facilities in 2017. Logistic regression models with robust estimation of variance were fitted to identify health beliefs associated with ever having had a pap smear (uptake), while controlling for potential confounders.

RESULTS Of the 280 women, 177 (63.2%) had ever been screened, 180 (64.3%) were never married, 199 (71.1%) attained secondary education and 133 (47.5%) were employed full time. The multivariable logistic regression showed that the health beliefs associated with Pap smear uptake were perceived severity and perceived barriers. Women of older age (AOR=1.6 for a 5-year increase in age; 95% CI: 1.3–1.9, P<0.001), with higher knowledge scores (AOR=2.5 for a 5-point increase in knowledge score; 95% CI:1.0–6.3 ;P=0.051), with lower perceived barriers scores (AOR =0.4 for a 5-point increase in barriers score; 95% CI:0.3–0.5; P<0.001) and higher perceived severity scores (AOR=1.3 for a 5-point increase in severity score; 95% CI:1.0–1.6; P=0.017) were more likely to have had a Pap smear.

CONCLUSIONS This study shows that women who take up screening are older, knowledgeable regarding cervical cancer and screening, less likely to perceive screening barriers, and more likely to perceive cervical cancer as a severe disease. This highlights that for public health interventions to increase screening uptake, the focus should include tailored behaviour change communication strategies that addresses women's beliefs regarding screening barriers and emphasise the severity of cervical cancer.

Chite Asirwa F

LUNG CANCER CONTROL IN SUB-SAHARAN AFRICA: EXPERIENCE AT AMPATH ONCOLOGY IN WESTERN KENYA

Chite Asirwa F[1], Atundo L[1], Kibet H[1], MLCCP K[1]
[1]Academic Model Providing Access to Healthcare

MEETING ROOM 4

Friday
8 November 2019
08:30–10:00

OBJECTIVE To find out the cause for the under-diagnosis of Lung Cancer (LC) at AMPATH by using community engagement and high-risk screening at the TB clinics.

METHODS FGDs with community cough monitors in counties were done due to overlap of LC and TB presentations. Consequently through establishing a multinational-lung cancer control program (MLCCP) to improve diagnosis and patient journey for lung cancer patients in our settings, we classified patients with symptomatic lung disease (chest pain, cough, SOB, weight loss, haemoptysis) and negative gene expert/negative sputum for AAFB as high-risk for further evaluation. CT scans were done for anyone with a chest mass/lesion and Image-guided biopsy offered.

RESULTS Jan 2018–Mar 2019, 331 high risk clients were evaluated. 214 with masses CT scans of which 205 were lung and 9 were mediastinal. 131/214 had biopsy, of which 83 (60 LC, 23 secondary mets) while 48 were other conditions. These included: Lung Fibrosis, Aspergillosis, Chronic granulomatous inflammation, TB, Thymoma, viral histiocytosis, Granuloma and unconfirmed diagnosis. For the biopsied lung masses-131/214, 60 had confirmed LC. This represented 45.8% of those biopsied. Male to Female ratio was 1:1, median age at diagnosis was 62 with 55–74 age range accounting for 73.2% of LC cases. The mean duration of symptoms was 8 months, range of 1 to 12 months. >50% of the cancer patients made 7–10 hospital visits before diagnosis, with 25% making more than 14 visits. NSCLC accounted for 92.2% of the diagnosis with SCLC 7.8%. Adenocarcinoma was the commonest diagnosed histological sub-type at 66% of NSCLC. Majority of the patients were diagnosed at stage IV, 78.1% with only three patients diagnosed in stage II. 39% (25/64) patients are alive and on follow-up.

CONCLUSION Early detection is key. Poor referral patterns and lack of LC knowledge and diagnostic skills by HC professionals causes late stage at diagnosis. Patients do not present Late. Community engagement and embedding simple protocols for prompt referrals/diagnostic work-up in TB control programs may lead to improved outcomes. Prevention measures should also be rolled out. Cough monitors were essential to improving the LC patient's journey.

Chite Asirwa F

P063 | BUILDING CAPACITY IN CANCER CONTROL IN AFRICA: THE ESWATINI ONCOLOGY EXCHANGE PROGRAM

Chite Asirwa F[1,2], Dlamini X[3]
[1]Academic Model Providing Access to Healthcare, [2]Indiana University, [3]Ministry of Health, The Kingdom of Eswatini

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Cancer care in sub-Saharan Africa (SSA) is hampered by lack of capacity both human and infrastructural to be able to optimally diagnose, treat and follow-up cancer patients throughout their cancer journey. There is also lack of screening technical knowledge amongst health care professionals (HCP) and most programs do not have enough personnel to carry out these activities. As part of the Multinational Lung Cancer Control Program (MLCCP), a SWOT analysis of the participating countries was done that determined the need for capacity building in Eswatini.

OBJECTIVES
1. Creation of an exchange program amongst various cancer experts in the region.
2. Assist in Building Capacity in Eswatini across all cadres of staff.
3. Improve cancer-related outcomes in the Eswatini through standardised care, shared protocols, Virtual Tumour board meetings and scheduled cancer experts exchange program.
4. Create a Network of cancer care experts to be leveraged for future trainings/ clinical trials in SSA.

METHODS Multiple stake-holders meetings identified priority areas for Eswatini. An MOU was drafted and adopted by the participating partners covering the nature, length, depth, logistics and regulatory framework of the partnership. A team of cancer experts was identified throughout the region and the Ministry of Health (MOH) of Eswatini reviewed and approved them, appointing them as exchange Oncologists with each one rotating in-country with specific outlined deliverables for a period of 2–4 weeks coordinated by the Eswatini team.

RESULTS Training of HCP on cancer management is on-going.Cancer treatment protocols, availability of cancer treatments in-country and regular virtual tumour-boards with exchange consultants is being undertaken. Delivery of services through Essential infrastructure is in the process of being created as per the country's priority with assistance from the exchange Faculty and MOH.

CONCLUSION SSA can leverage the expertise that exists on the continent to improve the quality of care in cancer control-Prevention, screening, treatment, survivorship, palliative care and research in the region.

ACKNOWLEDGEMENTS
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3. Phangisile Mtshali|Director: Bristol-Myers Squibb Foundation Secure the Future CANCER Programme
4. All Participating Exchange Oncology Professionals.

Chite Asirwa F

P213 | THE ROLE OF TRADITIONAL HEALERS/MEDICINE MEN IN CANCER AND CHRONIC DISEASE CARE IN WESTERN KENYA

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NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Traditional medicine men and women are a major source of health care in the communities in Western Kenya especially for chronic or "unexplained" diseases. It is estimated that more than 75% of the population consults traditional healers before diagnosis, during treatment or after their cancer treatments. However, there is very little research on the role of traditional healers in cancer and chronic disease care.

METHODS This qualitative study was designed to identify the roles the traditional healers believe they play in cancer management from diagnosis, treatment and family support, with a view to mitigate the barriers in cancer care and develop a white paper for the policy makers on role of traditional healers in cancer care in Kenya. Focus group discussions and in-depth interviews were conducted with three cohorts of traditional healers in Western Kenya. 18 cancer survivors, who interacted with traditional healers, were also interviewed.

RESULTS A total of 80 traditional healers participated. Cohort 1 had 25, Cohort 2 had 35 and Cohort 3 had 20 participants drawn from communities in Western Kenya. 18 cancer survivors were interviewed separately. The traditional medicine men/women were a mixture of herbalists, prayer-healers, witchdoctors and diviners. Most of the participants multi-tasked and had multiple roles in the community. However, their roles fell into five major categories: Medicinal healing using traditional herbs, comforting the patient & family, provision of palliative treatments, spiritual guidance/divine intervention (including blocking evil spirits & atonement) and bereavement support. They reported some challenges in their work which included lack of recognition, encroachment of farming on the herbs/forest lands, inability to make "proper" diagnosis and loathing from the hospital doctors/conventional practitioners. The 18 cancer survivors interviewed gave four major reasons for going to traditional healers: accessibility (close, available, friendly, wide-range-of-services & welcoming), easy to understand them (cultural compatibility and "sensible"), Cost (cheaper, pay-over-time, pay-in-kind) and "tired of the hospital doctors/nurses with bad attitudes".

CONCLUSIONS There is definitely a role for the traditional medicine/women in cancer and chronic disease care continuum, however, the specific roles and regulation of the practice needs to be further interrogated. They, if selected well and trained, can help in early referral for diagnostics and treatments at cancer centres, offer emotional support to the families and be involved in cancer awareness and screening messaging as per the local communities but with regulated oversights.

Chite Asirwa F
P360 | LUNG CANCER IN KENYA: QUANTIFICATION OF THE PROBLEM

Chite Asirwa F[1], Kalebi A[2], Kibet H[1]
[1]Academic Model Providing Access to Healthcare, [2]Lancet Pathologists Kenya

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE As part of MLCCP to establish a baseline of lung cancers in Kenya.
METHODS

Setting I: A Retrospective review of lung cancer diagnosis at Eldoret Cancer registry 1995–2017; 310 analyzed.

Setting II: All those with lung masses at radiology unit from 2014–2018 ;78 lung masses noted.

Setting III: Data from a large private laboratory group – 514 cases that were biopsied, 279 malignant vs 235 others.

RESULTS Setting I: 310 lung malignancies. Primary lung 102 (32.9%). M: F was 1:1. Mean age, and range in years was 60.3 ± 1.2 and 29–98. NSCLC 81.4% and SCLC 18.6%. Adenoca 62.7%, SCC 21.7%, large cell carcinoma 6.0%. Staging on 18 patients, 14 had stage IV disease. Age 55–74 accounted for 61.7%. Setting II: From Rad unit Biopsies done mainly by CT-guidance (31/73), Ultrasound guidance (20/73), bronchoscopy (19/73) and Thoracotomy (3/73).

Of 78 cases, 50 (64.1%) were malignancies. Lung cancer had 34 of the 50. Mean age 57.1 range 32–84 yrs with median 61. Males were 21 (67.8%) and females were 13 (38.2 %) NSCLC was 83.4% and SCLC was 17.6%. Adenoca accounted for 82.14% of NSCLC. Clinical data was available on 10 of the 34 cancer patients and indicated Stage IV in 80% of them. Setting III: Of the 279 malignant cases from the private lab facility, Primary lung cancer had 209 patients (74.9%). Other metastatic cancers;Metastatic carcinoma 4.7%, CUP 4.3%, Neuroendocrine 3.6%, Carcinoid tumour 1.8%, sarcoma, spindle cell tumour, lymphoma and others. M:F 116 (55.5%) vs 86 (41.2%). 61 av. age at diagnosis, range 23–94 yrs. NSCLC was 91.8% of all cases, SCLC was 8.2%. In NSCLC, Adenocarcinoma 129 (61.7%), SCC 20% and others 20%. Others – TB, Pna, Aspergillosis, Benign tumours, Fibrosis, Bronchiolitis Obliterans etc.

CONCLUSION High index of suspicion, education and training is needed to improve diagnostics in Lung cancer in Kenya. Bio-banking of tissue and more research i.e evaluation of mutations; EGFR, ALK, ROS1, MET, BRAF, HER2, PDL1, MAPK, PI3K signalling pathways may be useful to define mechanisms of drug sensitivity and potential molecular targets in our setting. There is a need to fully characterise, optimally treat and measure outcomes of lung cancer in Kenya.

Cimino F

P064 | THE PREPARATION OF MEDICINAL PRODUCTS FOR CANCER THERAPY IN DEVELOPING COUNTRIES: AN INCREASINGLY URGENT CHALLENGE

Cimino F[1,4], Baratta F[2,3], Brusa P[2,3], Sala E[4], Catalfamo Akbaraly C[1,4]
[1]Akbaraly Foundation, [2]University of Turin, [3]Aid Progress Pharmacist Agreement non-profit association, [4]NGO Alfeo Corassori – La Vita Per Te

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE Non-Communicable Diseases, such as tumours, have reached epidemic proportions in low-income countries. In addition, the use of industrially produced medicines give rise to a significant problem, because a large part of the products available on the local markets are falsified. Therefore, assuming that it was possible in the first place to access the medicines needed for cancer therapy, there is a risk that these are ineffective or fake. Furthermore, the preparation of these therapies requires the availability, in hospitals or in similar facilities, of adequate equipment and trained personnel. In this context the A.P.P.A.® Project (Aid Progress Pharmacist Agreement), which focuses on establishing galenic laboratories in hospitals located in in developing countries, for many years has been recognising, among its objectives, the importance of teaching local staff how to handle and properly prepare cancer treatments.

METHODS In order to guarantee the quality of injectable oncological products, specific operative protocols were studied. Furthermore, in the case of oral anti-cancer medicines, for which the pharmaceutical form did not satisfy the quality requirements, specific handling and re-encapsulation procedures were developed.

RESULTS The operative protocols have been already introduced on site in hospitals located in Haiti, Angola and Chad. The workers' ability to manipulate and prepare oncological medicines and to follow the operative protocols was verified during on-site trips: all workers showed the necessary skills to autonomously manage all phases of the preparation.

CONCLUSIONS The "breast and cervical cancer screening in the Southern and Central regions of Madagascar" Project, developed by the Akbaraly Foundation in cooperation with the NGO "Alfeo Corassori-La Vita per Te", requires the opening of a new A.P.P.A.® lab in Fianarantsoa (Madagascar) in 2019. Considering both the local incidence of oncological pathologies and the spread of falsified medicines, all the operating procedures developed by A.P.P.A.® for the management of cancer therapies will be introduced on site and the local staff will be trained accordingly.

LIGHTNING TALKS 6: ADVOCACY | SURVIVORSHIP; EDUCATION AND TRAINING

Duncan K

GLOBAL ONCOLOGY RESEARCH AND TRAINING COLLABORATIONS IN THE AFRICA REGION: RESULTS FROM THE 2018 U.S. NATIONAL CANCER INSTITUTE (NCI)/AMERICAN SOCIETY OF CLINICAL ONCOLOGY GLOBAL ONCOLOGY SURVEY OF U.S. NCI DESIGNATED CANCER CENTRES

Duncan K[1], Abudu R[1], Cira M[1], Pyle D[2], Gralow J[3]
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MEETING ROOM 4

**Thursday
7 November 2019
13:30–14:30**

OBJECTIVE An array of global oncology research and training activities are led by the National Cancer Institute (NCI)-Designated Cancer Centers (NDCCs) with international collaborators. To better understand the scope of the non-NIH-funded global oncology activities and collaborations, including in the Africa region, the NCI Center for Global Health (NCI-CGH) collaborated with the American Society of Clinical Oncology (ASCO) to conduct the 2018 NCI/ASCO Global Oncology Survey of NDCCs.

METHODS In 2018, the 70 NDCCs received a two-part survey that focused on global oncology programs at NDCCs and non-NIH funded-global oncology projects led by the NDCCs with an international collaborator. Sixty-five NDCCs responded to the survey, and 57 reported non-NIH-funded global oncology projects. Data were cleaned, coded, and analysed by NCI-CGH staff.

RESULTS Overall, NDCCs reported more than 530 non-NIH-funded global oncology projects, and 147 projects (or 28% of total projects reported) focused on capacity building or training. Twenty-seven NDCCs reported 97 (18%) global oncology projects with collaborators from 20 African countries. Capacity building/training projects with collaborators in Africa made up 52 (35%) of the total 147 capacity building/training projects. Example projects include: telementoring to improve cancer screening and palliation, and pathology training programs. Top cancer sites studied were breast (28), non-site-specific (28), and cervical cancers (16), and top CSO codes addressed included treatment (52), early detection, diagnosis, and prognosis (51), and cancer control, survivorship, and outcomes research (31).

CONCLUSIONS Survey results indicate that almost half of NDCCs (47%) with non-NIH-funded global oncology projects work with collaborators in the Africa region, and there is a substantial number of projects that focus on capacity building or training (54% of projects). The 2018 survey can be used to foster opportunities for researchers in the Africa region to network with NDCCs to further strengthen global oncology research and training in the Africa region.

Company Serrat A

P095 | IMPROVING PATIENTS' CARE THROUGH A KNOWLEDGE HUB METHODOLOGY: AN INNOVATIVE APPROACH USED ON IMMUNOTHERAPY TRAINING, THE "VIKHI PROJECT"

Company Serrat A[1], Sedano Martinez A[1], Brao Pérez I[1], Domingo Doménech E[1], Martín Liberal J[1], Nadal Alforja E[1]
[1]Catalan Institute of Oncology

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES The management of cancer patient's is increasingly complex and requires a multidisciplinary approach in which different professionals are involved: oncologists, surgeons, nurses. This changing environment must be taken in account designing HCP's comprehensive training programs. To facilitate this approach, we have designed a learning methodology that adapts the learning material to each professional profile, and also allows the exchange of knowledge between them. We have first us this approach in the field of immune oncology. Immunotherapy is becoming established as a standard treatment for multiple tumour types, but there is a knowledge gap between highly specialised research centers and most of the healthcare clinical teams staffed by physicians and nurses responsible for the treatment and follow-up of cancer patients. The main goal was to create a sustainable Immuno-Oncology Knowledge Hub which is evidence-based and structured around different educational pathways based on the professional profiles, abilities and/or needs of its users. An additional aim of the project was to establish proof of concept, the Virtual Knowledge Hub methodology will be useful in the training of professional cancer teams.

DESCRIPTION The Hub is designed as an adaptive intelligent system based on the profiles and needs of its users. Professionals are able to use the intelligent system to find knowledge adapted to their needs and/or profile, as well as contributing all the knowledge and experience they want to. To facilitate this main functionality, the system gathers personal information when the user first accesses it and use this to generate a personal profile which the Hub will use to provide knowledge tailored to each professional. The system automatically analyzes user answers and assigned the appropriate learner profiles and they have access to the learning material that best matches their educational needs. It includes videos, e-learning content, virtual scenarios, guidelines, and discussion spaces with experts or peers. The Hub has been tested and implemented in a large European oncology community network. The Hub's social learning component allows the same professional to be an expert in one subject and a student of another.

RESULTS We present here the design as well as the results of the VIKHI project as an example of a practical application of this methodology.

CONCLUSIONS The use of an educational methodology based on a "Virtual Knowledge Hub" would be useful supporting the management of cancer patients in a multidisciplinary environment.

Company Serrat A

P096 | ONLINE TRAINING ON HPV VACCINE SAFETY TO ENHANCE PUBLIC CONFIDENCE IN VACCINATION TROUGH PROFESSIONAL CAPACITY

Company Serrat A[1], Montserrat Moreno M[1], Brotons Agulló M[1], Trujillo Sánchez L[2], Wiesner Ceballos C[2], Bosch José X[1]
[1]Catalan Institute of Oncology, [2]National Cancer Institute

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES Safety evaluation and communication about HPV vaccine safety is critical because fear of adverse events may lead to a decrease in public trust and confidence in vaccines and a reduction in vaccine coverage, both of which may compromise the global impact of the program. In recent years, we have seen vaccination rates fall drastically in many countries due to episodes that have been erroneously associated with HPV vaccination. This has been the case in Colombia, Japan, Denmark or France. As a specialised and world's reference centre in the epidemiology and prevention of HPV-associated diseases, the e-oncology program at Catalan Institute of Oncology (ICO) has developed and deployed e-learning activities in cervical cancer epidemiology and prevention. The ICO, e-oncology and the Colombian National Cancer Institute (INC) aimed to develop an ad hoc virtual course on the efficacy and safety of HPV vaccines to reach a large number of Colombian health care professionals and enhance their capacities to increase public confidence in deal with HPV national vaccines.

METHODOLOGY We developed a 10-hour modular online course with the aim of transmitting to all those involved in the prevention of cervical cancer the latest scientific evidence on the efficacy and safety of HPV vaccines. The course includes also specific country information about the epidemiology and prevention developed and endorsed by local institutions. Structure:

- Videos of theoretical lectures given by recognised experts from ICO and INC.
- Additional material: Aimed at those students who wish to go in-deep.
- FAQs: which include the most frequent questions about the efficacy and safety of the vaccines with their corresponding answers and bibliographical references.
- Activities to reinforce the training.

The course is addressed to general practitioners, pediatricians, nurses, midwives, gynecologists and HCP's involved in public health vaccination programs. and can be easily translated and adapted to other cultural and geographic environments.

RESULTS More than 4,000 Colombian professionals have accessed the course in the first nine months and the forecast is to reach almost 10,000 professionals during the first year. 61% of participants rated the course as excellent and 30% as good or very good.

CONCLUSIONS The use of e-learning has proven to be very useful to provide in short time a large number of health professionals with evidence-based information on the safety of the HPV vaccine. This experience can be easily migrated to other countries.

Constant D

WHAT DO WOMEN IN UGANDA AND SOUTH AFRICA REALLY KNOW ABOUT BREAST CANCER

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PLENARY VENUE

**Wednesday
6 November 2019
14:40–16:30**

INTRODUCTION Breast cancer is a leading cause of cancer morbidity and mortality among African women and presentation at late stage disease is common. Understanding women's awareness of risk factors and symptoms of breast cancer can inform interventions to improve timely diagnosis. This study describes Ugandan and South African women's unprompted and prompted awareness and their lay beliefs of breast cancer risk factors and symptoms.

METHODS We conducted the African Women's Awareness of Cancer (AWACAN) survey study in South Africa and Uganda, from August through December 2018. Data were collected by researchers using interviews conducted with women from urban and rural communities in South Africa (n=873) and Uganda (n=885) to determine awareness of 13 risk factors and 15 symptoms as well as lay beliefs of breast cancer.

RESULTS Recall (unprompted response) of breast cancer risk factors was poor: 8.8% recalled ≥1 risk factor vs. 95.2% who recognised (prompted response) ≥1 risk factors. Symptoms were better known: 78.0% recalled ≥1 symptoms and 99.0% recognised ≥1 symptoms. The most common risk factor recalled was having a family member with breast cancer (3.1% vs. recognised: 49.5%); having had breast cancer previously was the most recognised risk factor (52.9%). For symptom recall, having a lump in the breast was most common (44.9%) vs. recognition (90.8%); bleeding from the nipple was most recognised (91.4%). Recognition of risk factors and symptoms was significantly lower among rural compared to urban communities in South Africa (Wilcoxon rank-sum test: p<0.01, p<0.01, respectively), but not in Uganda (p=0.38, p=0.24, respectively). Overall, multiple lay beliefs were prevalent, more so for risk factors than for symptoms.

CONCLUSION Awareness of risk factors and symptoms is limited in these settings. Public heath interventions for breast cancer control should be widespread and include information on both risk factors and symptoms.

Cook R

P237 | BREAKING DOWN BARRIERS TO BURKITTS LYMPHOMA TREATMENT IN LIBERIAN CHILDREN

Cook R[1,2,3,5], Paye S[1], Ketema A[4], Slewion S[6,7], Moormann A[2]
[1]Partners in Health-Liberia, [2]University of Massachusetts Medical School, [3]Harvard Medical School/Massachusetts General Hospital, [4]Jackson F. Doe Hospital, [5]J.J. Dossen Hospital, [6]Liberian National Cancer Registry, [7]Liberia Ministry of Health

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Children with Burkitt Lymphoma (BL) in Liberia are dying despite high survival rates in high-income countries. The reasons for this are multi-factorial. We conducted a prospective cohort study to identify clinical characteristics and barriers to diagnosis and treatment for these children.

METHODS Children age 0–15 years with suspected BL presenting to three hospitals in Liberia were recruited. Barriers to diagnosis and treatment were gathered through semi-structured interviews with parents/guardians and primary health care providers. In addition, we developed a costing tool to estimate facility-based costs using risk category, current chemotherapy and monitoring protocol, and hospital fee schedule.

RESULTS 22 children were enrolled in this study and the majority had advanced disease at diagnosis. Median total delay from symptom onset to diagnosis was 8 weeks (IQR 7), median caregiver- delay (symptom onset to first visit to health facility) was 2 weeks (IQR 1); median health system delay (time from first visit to health facility to diagnosis) was 6 weeks (IQR 11.5). Most children visited multiple primary level facilities prior to arriving at a health facility where BL was investigated. Many primary health providers do not include paediatric cancer in their differential diagnosis. Overall knowledge of cancer among both parents/guardians and health providers is low. Costs of treatment, challenges with transportation and distance from family were the primary barriers identified. Cost for chemotherapy and hospital care to treat BL is between 400–900 US dollars.

CONCLUSIONS While Liberia has the capacity to both diagnose and treat BL, there are many ongoing challenges impacting treatment access and outcomes. There are significant health systems delays, largely due to low awareness of BL among providers and limited diagnostics. Access to affordable and high-quality chemotherapy and supportive care, and long-term follow-up of patients from a dispersed geographic area are additional challenges to improving BL survival in Liberia.

Court L

P290 | THE RADIATION PLANNING ASSISTANT: FULL AUTOMATION OF RADIATION TREATMENT PLANNING

Court L[1], Simonds H[2], Zhang L[1], Trauernicht C[2], DuToit M[2], McCarroll R[1], Kisling K[1], Shaitelman S[1], Jhingran A[1], Naidoo K[2], Yang J[1], Balter P[1], Beadle B[3]
[1]MD Anderson Cancer Center, [2]University of Cape Town, [3]Stanford University

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To fully automate radiotherapy planning and QA tasks to improve access to and quality of radiation therapy throughout the world.

METHODS We use a combination of in-house software and commercially available treatment planning software (Eclipse, Varian Medical Systems) to fully automate the treatment planning process, including contouring, field definition (3DCRT), and optimisation (VMAT). All tasks are performed automatically using a primary algorithm for the treatment plan and a secondary independent algorithm to verify the primary algorithm. The only manual intervention is delineation of the GTV for head and neck (H/N). For H/N VMAT cases, normal tissues and lymph node targets are automatically delineated using a multi-atlas segmentation. A deep learning approach is used for the segmentation verification algorithm. RapidPlan is used to create a VMAT plan. For cervical cancer 4-field box treatments, field apertures (jaw and MLC positions) are automatically calculated based on bony anatomy automatically delineated using the in-house multi-atlas segmentation tool and verified using a deep learning approach. For post-mastectomy irradiation of the chest wall (tangents+SCV), the beams are setup and the dose is optimised using a combination of automatic delineation (using our in-house tool), beam setup algorithms using support-vector machines and deep learning to determine field borders, and automatic field-in-field optimisation.

RESULTS Algorithms have been developed and undergone quantitative testing and physician review for H/N, cervix, and chest wall. We have demonstrated that the verification algorithms can successfully flag suspicious/failing cases. Several of these RPA tools are now in routine clinical use at MD Anderson (H/N contouring and cervix field definition). We expect to clinically deploy the automated contouring and planning for H/N, cervix, and chest wall in South Africa in 2019.

CONCLUSIONS We have achieved full automation of radiation planning for cancers of the H/N, cervix, and chest wall. Clinical deployment at partner sites will start soon. We are actively expanding this work to other anatomies and treatment modalities, including contouring and VMAT for cervix, intact breast, and prostate cancers.

Cumbana R

P155 | FREQUÊNCIA DO CARCINOMA HEPATOCELULAR NO HOSPITAL CENTRAL DE MAPUTO 2015–2017

Cumbana R[1], Victor R[1], Nassone E[1], Dimande L[1], Ismail M[1,2], Modcoicar P[1]
[1]Hospital Central de Maputo, [2]Universidade Eduardo Mondlane

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUÇÃO O Carcinoma hepatocelular é um tumor maligno primário do fígado que corresponde ao sexto tipo de cancro mais comum ao nível mundial e constitui a terceira causa de morte associada ao cancro. Moçambique é um dos países da África sub-sahariana com maior prevalência desta neoplasia (80%) e está relacionada com a infecção pelo vírus de hepatite B e cereais contaminados por aflatoxina. Este trabalho descreve a frequência do Carcinoma hepatocelular no Serviço de Gastroenterologia do Hospital Central de Maputo entre 2015 a 2017.

METODOLOGIA Trata-se de um estudo retrospetivo, descritivo, qualitativo, baseado na análise da base de dados do Serviço de Gastroenterologia e Serviço de Anatomia Patológica do HCM entre Janeiro de 2015 a Dezembro de 2017, referente a doentes com suspeita ecográfica de Carcinoma hepatocelular. São estudados 635 análises de pacientes com punção aspirativa agulha fina ecoguiadas para confirmação diagnóstica.

RESULTADOS De um total 635 pacientes avaliados durante 3 anos são diagnosticados 336 tumores malignos (52,1%). Em 2015, dos 175 suspeitos, 116 (65%) são positivos para Carcinoma hepatocelular, sendo 80 (72%) do sexo masculino, 31 (28%) do sexo feminino, com idade média de 47 anos. Em 2016 dos 218 suspeitos, 45 (21%) são positivos para este tumor, sendo 26 (58%) do sexo masculino, 19 (42%) do sexo feminino, com idade média de 48 anos. Em 2017 dos 256 suspeitos, confirmam-se 175 (68%), sendo 121 (69%) do sexo masculino e 54 (31%) do sexo feminino, com idade média de 48 anos.

CONCLUSÃO O Carcinoma hepatocelular tem tendência a aumentar no Hospital Central de Maputo durante os anos 2015 - 2017, com predomínio no sexo masculino e idade média de 48 anos, conforme descrito na literatura. Sugerem-se medidas de rastreio ao nível da atenção primária, a fim de reduzir o número de casos de Carcinoma hepatocelular.

Dadzie M

P214 | ASSESSMENT OF BREAST CANCER MANAGEMENT IN SUB SAHARAN AFRICA

Dadzie M[1], Vanderpuye V[1], Huo D[2], Olufunmilayo IO[2]
[1]National Radiotherapy, Oncology and Nuclear Medicine Centre, [2]Center for Global Health

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND A pilot survey conducted through the AORTIC network in 2013 evaluated the state of breast cancer management in sub-Saharan Africa (SSA). Five years on, a follow up survey to document progress and persistent bottlenecks was deemed necessary to serve as a benchmark for future improvements.

METHODOLOGY An anonymous online survey of breast cancer management in SSA was conducted among AORTIC members, using a structured questionnaire in English, French and Portuguese. Responses were summarised and stored in Microsoft excel, and analysis demonstrated in table or graphs where appropriate.

RESULTS There were thirty-seven respondents from 30 facilities in 21 SSA countries. 91% oncologists versus 54% in the previous survey. Twenty-four (80%) facilities conduct breast multidisciplinary tumour boards (MDT) indicating a 20% increase over the 5 years. Only 3 institution did not use any form of treatment guideline. One third of institutions did not have radiotherapy. 22% record frequent downtime and 61.2% use conformal planning. Majority have access to CAF(90%), Tamoxifen (100%) and Zoledronic acid (89.5%). Availability of Taxanes and Trustuzumab have increased by 74% and 13% respectively. Out of pocket payments is required in 60% of cases and less than 10% of patients can afford Trastuzumab in most centres. Bone scan facilities continue to be scarce (20%). The average waiting time for histopathology report is 1–3 weeks. More than half (80%) have a time interval between Surgery and chemotherapy of less than 8 weeks and two thirds had more than an 8-week time interval between surgery and radiotherapy. Advanced stage and socioeconomic status remain the major determinants of treatment outcome.

CONCLUSION Positive strides continue to be made in the management breast cancer in SSA. However, the challenge of late presentation, inadequate radiotherapy services and lack of political will power to support cancer treatment continues to be a severe handicap requiring urgent intervention.

Daramola A
MALE BREAST CANCER IN AFRICA: MOLECULAR PROFILE AND OUTCOME

Lawal A[1], **Daramola A**[1], Orah N[2], Phillip A[3], Abdulkareem F[1], Banjo A[1]
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PLENARY VENUE

Thursday
7 November 2019
08:30–10:00

Male breast cancer (MBC) is a rare entity that is becoming more common; it accounts for 1% of all breast cancers. Different incidences have been reported depending on the study population, but it has been said to occur more commonly among men of African descent and Ashkenazi Jews having a risk that is 80% greater than other men because of Breast Cancer (BRCA) 1 or 2 genetic mutations. In Nigeria, the incidence varies between 1.9% and 9%. In an unpublished work done at the Lagos University Teaching Hospital, female breast cancers were found to increase over a 15yr period, whilst male breast cancers were found to decrease over the same time period. One of the major prognostic factors in breast cancer is the histological subtype. Histological types with excellent prognosis include tubular carcinoma, cribriform carcinoma, and mucinous carcinoma. Due to its low incidence, limited information is available concerning its epidemiology, predisposing factors, hormone receptor status, treatment and prognosis

A study assessing the histologic and immunohistologic patterns of MBC seen at the Lagos University Teaching Hospital in a 10yr period revealed that Invasive ductal carcinoma accounted for 88.9% of the cases. Seventeen (94.4%) cases were positive for ER only, 16(88.9%) cases were positive for ER and PR, while all the tested cases were HER2 negative. We inferred that the absence of HER2 positivity may give clues to the high survival rates of patients with MBC in our environment. Late presentation is a common occurrence among cancer patients in Nigeria and has been observed more in men. However, with increase in medical knowledge and availability of medical facilities, men apparently have begun to present earlier. A recent study from Zaria in Nigeria had only 29% of the patients presenting after 12 months, though the median duration of the presentation was 11 months.

Davis M

CLINICAL GENOMICS AND ACTIONABLE TARGETS IN WEST AFRICAN VS EAST AFRICAN BREAST CANCER: PRELIMINARY RESULTS FROM AN INTERNATIONAL PRECISION MEDICINE COLLABORATIVE

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MEETING ROOM 3

Wednesday
6 November 2019
13:30–14:30

OBJECTIVES Higher breast cancer mortality in African American (AA) and African (Afr) women, compared to European and White American (WA) women is partly explained by a lack of adequate targeted treatment options for Triple Negative Breast Cancer (TNBC). The prevalence of actionable somatic mutations in African populations has yet to be described.

METHODS A subset of 50 Ghanaian cases from the International Center for the Study of Breast Cancer Subtype biospecimen cohort were analysed using the Oncomine clinical genomics testing platform through Weill Cornell's Englander Institute for Precision Medicine. The targeted gene panel interrogates 143 unique cancer genes including 73 oncogenes, 49 copy number alterations (CNA) genes, 26 tumour suppressor genes, and 23 fusion driver genes. All specimens were assembled through a surgically maintained international biorepository. Global ancestry was quantified as well and tested for associations with specific test mutation results. Specific mutations were assessed for "actionable status", based on current clinical trial indications, reported as "Tiers 1–3" where Tier 3 mutations have an indication for an FDA-approved treatment.

RESULTS Across all samples, the highest frequency of gene-centred mutations was found in the TP53 gene with the second 'most mutated' gene being PIK3CA. These genes were also the most frequently mutated genes in our American patient samples, including African American and White-American samples. We found that the mutation loci occurred in different codons within these genes, compared to the most prevalent mutation hotspots in the American cohort. This suggests that the functional outcome of the mutations may also be different in the West African cases. We found that the Ghanaian samples had a higher frequency of Tier 1 and Tier 2 mutations, but this was not statistically significant in comparison to the American cohort; however, this analysis is ongoing we will reassess trends for significance as patient numbers accrue.

CONCLUSIONS West African ancestry is strongly correlated with TNBC status, as well as specific somatic variants related to clinical outcomes, due to oncogenic drivers. The presence and frequency of Tier 2 mutations indicate that targeted therapies are within reach for this population and further investigations of these targetable genes may be transformative for breast cancer outcomes in this population as we seek access to clinical trials.

Dawsey S
INTRODUCTION TO THE AFRICAN OESOPHAGEAL CANCER CONSORTIUM

Dawsey S[1], Mushi B[2], Kayamba V[3], Mwachiro M[4], Fleischer D[5], McCormack V[6]
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MEETING ROOM 1

**Wednesday
6 November 2019
14:40–16:30**

Oesophageal cancer is the 6th leading cause of cancer death worldwide. It kills 500,000 people every year, most of whom live in two distinct geographic bands across central Asia and along the eastern coast of Africa from Ethiopia to South Africa. In these high-risk areas, nearly all cases are oesophageal squamous cell carcinoma (ESCC). In 2016, African and international groups performing etiological and clinical research on ESCC in Africa formed the African Esophageal Cancer Consortium (AfrECC). The aims of this consortium are to raise awareness of the importance of ESCC in Africa; to coordinate etiologic studies of environmental and genetic risk factors; to address the clinical burden of ESCC by capacity building and clinical studies of early detection, treatment, and palliation; and to support young African researchers. AfrECC currently has 10 collaborating sites in 6 countries (Ethiopia, Kenya, Tanzania, Malawi, Zambia, and South Africa), and has bimonthly conference calls and in-person meetings every two years. Current activities include 7 case-control studies, 5 of which are using harmonised questionnaires and an mHealth app for real-time electronic data capture, with a total enrollment of 2400 cases and controls; a joint genome-wide association study (GWAS) with an initial analysis of 2000 cases and controls; biobanking at several sites for future genomic studies; endoscopic capacity surveys in 4 countries to evaluate current capabilities and training needs; a palliative care initiative to improve access to affordable esophageal stents and stent insertion training; and post-treatment quality of life and survival studies. The presentations in this session will highlight some of these activities.

Ddungu H

P156 | HOW LOW CAN YOU GO: WHAT IS THE SAFE THRESHOLD FOR PLATELET TRANSFUSIONS IN PATIENTS WITH HEMATOLOGIC MALIGNANCY IN SUB-SAHARAN AFRICA

Ddungu H[1], Krantz E[3], Phipps W[3,4], Orem J[1], Kiwanuka N[2], Wald A[3,4]

[1]Uganda Cancer Institute, [2]Makerere University, [3]Fred Hutchinson Cancer Research Center, [4]University of Washington

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Despite the importance of platelet transfusions in treatment of hematologic cancer patients, the optimal platelet count threshold for prophylactic transfusion is unknown in sub-Saharan Africa. The objective was to determine a safe threshold for platelet transfusion.

METHODS We followed patients admitted to the Uganda Cancer Institute with a haematological malignancy in 3 sequential 4-month time-periods using incrementally lower thresholds for prophylactic platelet transfusion: platelet counts ≤ 30 x 109/L in period 1, ≤ 20 x 109/L in period 2, and ≤ 10 x 109/L in period 3. Clinically significant bleeding was defined as WHO grade ≥ 2 bleeding. We used generalised estimating equations (GEE) to compare the frequency of clinically significant bleeding and platelet transfusions by study period, adjusting for age, sex, cancer type, chemotherapy, baseline platelet count, and baseline haemoglobin.

RESULTS Overall, 188 patients were enrolled. The median age was 22 years (range 1–80). Platelet transfusions were given to 42% of patients in period 1, 55% in period 2, and 45% in period 3. These transfusions occurred on 8% of days in period 1, 12% in period 2, and 8% in period 3. In adjusted models, period 3 had significantly fewer transfusions than period 1 (RR = 0.6, 95% CI 0.4–0.9; p = 0.01) and period 2 (RR = 0.5, 95% CI 0.4–0.7; p<0.001). Eighteen patients (30%) had clinically significant bleeding on at least one day in period 1, 23 (30%) in period 2, and 15 (23%) in period 3. Clinically significant bleeding occurred on 8% of patient days in period 1, 9% in period 2, and 5% in period 3 (adjusted p = 0.41). Thirteen (21%) patients died in period 1, 15 (22%) in period 2, and 11 (19%) in period 3 (adjusted p = 0.96).

CONCLUSION Lowering the threshold for platelet transfusion led to fewer transfusions and did not change the incidence of clinically significant bleeding or mortality, suggesting that a threshold of 10 x109/L platelets, used in resource-rich countries, may be implemented as a safe level for transfusions in sub-Saharan Africa.

de Sanjose S

HPV SELF-SAMPLING AS A PRIMARY CERVICAL CANCER SCREENING STRATEGY: LESSONS FROM CENTRAL AMERICAN PUBLIC HEALTH SYSTEMS

de Sanjose S[1], Camel C[2], Sandoval M[3], Maldonado F[4], Slavkovsky R[1], Jeronimo J[5], Holme F[1]
[1]PATH, [2]Secretaria de Salud de Guatemala, [3]ASHONPLAFA, [4]Movicancer, [5]Global Coalition Against Cervical Cancer

MEETING ROOM 4

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVE HPV self-sampling is widely recognised as a sensitive test to detect precancerous lesions and well-accepted approach to cervical cancer screening. Self-sampling is particularly well-suited to low-resource settings as it can help achieve higher screening coverage. Our objective is to describe self-sampling uptake within an effort to deliver HPV screening in public health systems in Nicaragua, Guatemala, and Honduras.

METHODS PATH and country nongovernmental organisations worked with the ministries of health to implement HPV-based screening for cervical cancer. Self-sampling was implemented using QIAGEN's careBrush. Key screening program indicators were compiled, including: number of women screened, number who used self-sampling, women's age at screening, and time elapsed since the woman's last screening test. Data were consolidated across years 2015 to 2018 and countries.

RESULTS During the project, 234,078 women across the three countries were screened with HPV tests; of these, 147,703 (63.1%) used self-sampling. HPV test positivity was 13.6%, with no differences in overall positivity between self-sampling and clinician-collected samples. In Nicaragua, 95.8% of women screened used self-sampling and 47.3% of women reached had never been previously screened. In Guatemala, where data are available, 90.2% of women used self-sampling and 30.0% were screened for the first time. In Honduras, self-sampling was promoted in just one of the three target provinces starting in 2017; in that province from 2017–2018, 58.4% used self-sampling.

CONCLUSIONS Self-sampling was highly accepted and reached many never-screened women, particularly in Nicaragua where health system leaders strongly encouraged self-sampling. Self-sampling may present a unique opportunity to reach high screening coverage in low-resource settings using HPV-based screening approaches.

Debes J

P361 | HEPATOCELLULAR CARCINOMA IN ETHIOPIA: SUB-ANALYSIS OF HEPATITIS B AND SORAFENIB TREATMENT

Sultan A[1], Campos Ulloa M[2], Bane A[1,4], **Debes J[2,3]**
[1]Addis Ababa University, [2]Hennepin County Medical Center, [3]University of Minnesota, [4]Adera Gastroenterology and Hepatology Center

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVES Hepatocellular carcinoma (HCC) has a high mortality in Africa. However, little is known about the current approaches to therapy in the region. We aimed to understand practice and outcomes of HCC in Ethiopia.

METHODS Retrospective chart review of individuals that presented with HCC at a major referral clinic in Addis Ababa. HCC was diagnosed via biopsy or imaging criteria as established by international guidelines. Survival was determined as date of last visit and calculated in days from initial diagnosis visit.

RESULTS A total of 46 individuals were included and 50% of them were females. Median age was 54 years (IQR 45–62). Forty-one percent of individuals had hepatitis B (HBV) as underlying liver disease. Of these, all had underlying cirrhosis, and complete data was available in 15 (78%). Median age of HCC diagnosis in HBV-infected patients was 48 years (IQR 19–38) and 57% had AFP levels above 400 ng/ml at the time of diagnosis. Thirty-one percent of HBV-patients (N:6) were diagnosed before age 40. Being on HBV antiviral treatment correlated with longer survival (median of 46 vs 34 days) despite having larger tumour-size (median 7.3cm vs 6cm). Twenty percent of all patients were treated with sorafenib (N:9). Median survival in this group was 92 days (IQR 24–121), despite almost all of them having AFP >400ng/ml. Over half of these patients (5/9) were HBV-positive. Interestingly, a neutrophil-to-lymphocyte ratio (NLR) of <2.5 correlated with better survival (109 days vs 68 days for those with NLR >2.5).

CONCLUSIONS Our study shows earlier diagnosis of HCC in individuals infected with HBV, and a trend towards better survival in those with HBV-antiviral treatment. A small sub-group of individuals treated with sorafenib showed a reasonable survival benefit with a positive correlation to NLR.

DeBoer R

EXPERIENCE AND VIEWS OF PROVIDERS AND PROGRAM LEADERS ENGAGED IN RADIOTHERAPY ALLOCATION AT BUTARO HOSPITAL IN RWANDA

Nguyen C[1], Mutoniwase E[2], Umutesi G[1], Shyirambere C[1], Ho A[3], **DeBoer R[3]**
[1]Partners In Health/Inshuti Mu Buzima, [2]University of Chicago, [3]University of California

MEETING ROOM 4

Friday
8 November 2019
12:45–13:45

OBJECTIVE In low-resource settings, complex decisions about the allocation of expensive cancer treatments, including radiotherapy (RT), are necessary to avoid implicit rationing based on ability to pay. Perspectives from the frontlines of this process in low-resource settings are nearly absent in the literature. This study aims to understand the experiences and views of stakeholders engaged in RT allocation at Butaro Hospital in Rwanda.

METHODS We conducted semi-structured interviews with a purposive sample of oncology physicians, nurses, program leaders and advisors who have been directly engaged in RT allocation at Butaro (n=22). Interviews were recorded and transcribed. Transcripts were coded using a data management software and analyzed using the Framework Method.

RESULTS Participants described improvement over time in the RT micro-allocation process, which now includes meetings to select patients from a waitlist using prioritisation guidelines but identified numerous remaining procedural challenges. There was consensus that curability, related clinical factors (e.g. disease type, stage), and age should drive prioritisation. Opinions about non-clinical factors varied widely, especially regarding the role of nationality, contribution to society, and health-related behaviours. Clinicians expressed moral distress associated with these decisions and emphasised the complexity in communicating about them with patients. Program leaders discussed challenges of macro-allocation for RT given competing needs in budget. Participants shared many recommendations: specific revisions to prioritisation guidelines, expanded stakeholder engagement in deliberations, education about RT and support for on-the-ground decision-makers, real-time involvement of radiation oncologists, and improved post-RT outcome data collection. They also strongly advocated for increased access to RT.

CONCLUSIONS Efforts to increase access to RT in low-resource settings are ongoing; however, until RT resources are adequate to meet population demands, structured and deliberative approaches to RT priority setting are needed. Qualitative data from stakeholders involved in this process should be used to improve deliberative procedures and support for oncology clinicians and stakeholders.

Athanas R

P251 | TRUTH TELLING BY HEALTHCARE PROVIDERS TO TERMINALLY ILL CANCER PATIENTS IN TANZANIA

Athanas R[1], Joseph R[1], DeBoer R[2], Dharsee N[1,3], Gasto F[1]
[1]Muhimbili University of Health and Allied Sciences, [2]University of California, [3]Ocean Road Cancer Institute

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Widely accepted international clinical ethics standards and Tanzania's National Health Research Guidelines mandate that healthcare providers give patients information they want or need in an understandable way. However, adherence to these standards is low particularly in developing countries. In Tanzania, little is known regarding the views and practice of disclosure of diagnosis and prognosis to cancer patients. This study aimed to examine the factors influencing truth telling by providers to terminally ill cancer patients at Ocean Road Cancer Institute (ORCI).

METHODS We conducted semi-structured interviews with a purposive sample of healthcare providers (n=13) and terminally ill cancer patients (n=8) in English and Swahili. The sample included oncologists, palliative care specialists, nurses, and terminally ill cancer patients. The interviews were recorded, transcribed verbatim, and translated to English. Transcripts were coded and thematic analysis was applied.

RESULTS Participants generally acknowledged that truth telling is unsatisfactory according to international ethical standards. Fear of causing distress or hopelessness was a commonly cited barrier to truth telling, whereas rapport-building and principles of honesty were facilitators. Many providers emphasised systems-level barriers including: limited time, high volume of patients, a lack of private rooms for communication, absence of multi-disciplinary communication in care planning, lack of formal guidelines, and lack of communication skills training. Patients' preferences, readiness to receive information, and religious faith were identified as both barriers and facilitators. Stigma due to traditional associations of cancer with witchcraft, communalism, and family collusion also influence truth telling.

CONCLUSIONS Participants recommended measures for improved truth telling: ongoing trainings to equip healthcare providers at ORCI in clinical ethics knowledge and communication skills, designated spaces to enhance privacy, freedom of sharing and listening, well stipulated guidelines for a multi-disciplinary team, and deliberate efforts to employ enough providers to care for increasing volumes of patients.

Denburg A

LB029 | FORECASTING ESSENTIAL CHILDHOOD CANCER DRUG NEED AND COST IN AFRICA: AN INNOVATIVE MODEL-BASED APPROACH

Denburg A[1], Hughes T[2], Empringham B[1], Ward Z[3], Wagner A[3], Frazier L[2]
[1]The Hospital for Sick Children, [2]Dana Farber Cancer Institute, [3]Harvard University

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Childhood cancer treatment in LMIC is hampered by limited access to chemotherapy, due in part to a lack of quality data on the amount of drug needed and associated costs. To enable reliable and efficient procurement of childhood cancer drugs, the ACCESS project has developed a model to forecast chemotherapy demand in LMIC, enabling rigorous estimates of the annual volume and cost of essential drugs required to treat childhood cancer in Africa.

METHODS We developed a paediatric-specific model (ACCESS FORxECAST) that forecasts required drug quantity and cost for 18 common paediatric cancers, customisable to geographic region, regimen, cancer stage and drug price. Chemotherapy protocols were referenced from SIOP adapted treatment regimens, with input from disease experts working in LMIC. The model incorporates microsimulation estimates on incidence through extrapolation of existing registry data. Drug prices were derived from MSH's International Medical Products Price Guide. We calculated the quantity and cost of essential drugs required to treat childhood cancer across Africa, based on both diagnosed cases and estimates of population-based incidence.

RESULTS The projected annual cost of treating the present burden of childhood cancer in Africa is USD 28.7M (95%CI 10.2–40.1). The estimated cost of treating all cases of childhood cancer (including undiagnosed cases) is USD 63.5M (22.7–88.0). The most expensive type of cancer to treat is acute lymphoblastic leukemia (median USD 11.7M). The most expensive individual medication is mercaptopurine (mean USD 16.9M). We provide detailed estimates of drug need and price by chemotherapeutic agent, country and diagnosis.

CONCLUSIONS Our results enable evidence-based forecasting of childhood cancer drug need and cost to inform health system planning in a wide range of African countries. The FORxECAST model is adaptable to setting, diagnosis, and treatment approach, allowing decision-makers to generate results specific to their context and needs. The ACCESS project will employ these summary estimates of need and cost to advance innovative strategies to improve drug access for children with cancer in Africa and globally.

Denburg A

LB030 | CHILDHOOD CANCER TREATMENT UNITS REPRESENT COST-EFFECTIVE INTERVENTIONS IN SUB-SAHARAN AFRICA: A MULTI-CENTRE STUDY

Denburg A[1], Chitsike I[2], Horton S[3], Githang'a J[4], Schroeder K[5], Brown B[6], Renner L[7], Chokwenda N[2], Majahabi F[5], Gupta S[1]

[1]The Hospital for Sick Children, [2]University of Zimbabwe, [3]University of Waterloo, [4]Kenyatta National Hospital, [5]Bugando Medical Center, [6]University of Ibadan, [7]Korle Bu Teaching Hospital

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE Childhood cancer treatment is often assumed to be costly and ineffective in African settings, limiting advocacy and policy efforts. We therefore determined the cost and cost-effectiveness of maintaining childhood cancer centres across four hospitals throughout Sub-Saharan Africa.

METHODS Within hospitals representing four countries (Kenya, Nigeria, Tanzania, Zimbabwe), costing data were gathered for all inputs related to operating a paediatric cancer unit. Cost and volume data for relevant clinical services (e.g. laboratory, pathology, medications) were obtained retrospectively or prospectively. Other costs included those associated with salaries, inpatient bed use, outpatient clinic use, administrative fees, and overhead. Costs were summed for a total annual operating cost. Cost-effectiveness was calculated based on annual newly diagnosed patients, survival rates, and life expectancy.

RESULTS The four treatment centres varied in size and services delivered, seeing 40–170 new diagnoses annually. The cost per new diagnosis ranged from $2300 to $31,000, with differences attributable to variance in centre size, case mix, and abandonment rate, which also affected survival. The most expensive cost input was that associated with medication in Kenya, and medical personnel in the other three centres. The cost per disability-adjusted life-year (DALY) averted was less than the national per capital Gross National Income, and thus very cost-effective by World Health Organization standards. In all four centres, abandonment of therapy remained a significant cause of treatment failure; modelling exercises suggest that public funding of treatment and/or hiring of psychosocial personnel would increase survival rates while maintaining or even improving cost-effectiveness.

CONCLUSIONS This study indicates that among centres representing a range of sizes and settings across Sub-Saharan Africa, childhood cancer treatment units represent very cost-effective interventions. Additional cost outlays aimed at decreasing abandonment will increase survival and may further improve cost-effectiveness. These results will inform national childhood cancer strategies across Africa.

Denburg A

POLITICAL PRIORITY AND PATHWAYS TO SCALE-UP OF CHILDHOOD CANCER CARE IN FIVE NATIONS

Denburg A[1], Renner L[2], Rodriguez Galindo C[3], Atun R[4]
[1]The Hospital for Sick Children, [2]Korle Bu Teaching Hospital, [3]St Jude Children's Research Hospital, [4]Harvard School of Public Health

MEETING ROOM 4

**Wednesday
6 November 2019
14:40–16:30**

OBJECTIVE The factors that determine whether and how childhood cancer is prioritised in national health agendas and integrated into health systems remain poorly understood. We investigated the political, social, and economic factors that influence health system priority-setting on childhood cancer care (CCC) in a range of low- and middle-income countries (LMIC).

METHODS Based on in-depth qualitative case studies, we analysed the determinants of priority-setting for CCC in El Salvador, Guatemala, Ghana, India, and the Philippines using a conceptual framework that evaluates the impact of political contexts, actor power, ideas, and issue characteristics on political prioritisation. Data derived from interviews (n=68) with key informants involved in CCC policies and programs, supplemented by academic literature and policy documents.

RESULTS Political priority for childhood cancer varies widely across the countries studied and is most influenced by political context and actor power dynamics. Ghana has placed relatively little national priority on CCC, due to competing priorities and a lack of stakeholder cohesion. In El Salvador and Guatemala, actor power has played a central role in generating national priority for CCC, where civil society organisations have disrupted legacies of fragmented governance to shape policy agendas. In India, an empowered private actor was instrumental in establishing priority and sustained channels of financing for CCC. In the Philippines, the childhood cancer community capitalised on a window of opportunity to expand access to CCC through the political prioritisation of UHC and NCDs in health system reforms.

CONCLUSIONS Actor power emerged as a critical enabler of CCC prioritisation in LMIC. Responsiveness to political contexts – in particular, priority placed on NCDs and UHC – is also crucial to place CCC firmly on national health agendas. Governments must be convinced of the potential for health system strengthening and the capability of networked actors to amplify public sector investments and catalyse change on the ground.

Desalegn Z

P047 | TRANSLATING ENDPOINT PCR BASED BREAST CANCER MARKER DETECTION TO CLINICAL PRACTICE IN UNDERSERVED SETTING

Desalegn Z[1], Kathrin S[2], Yohannes M[1], Thomssen C[2], Abebe T[1], Kanthelhardt E[2], Vetter M[2]
[1]Addis Ababa University, [2]Martin-Luther-University Halle-Wittenberg

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Considering the burden of breast cancer in developing countries, the laboratory infrastructure has to be improved. In the clinical routine, patients are taking treatment without knowledge of estrogen receptor (ER), progesterone receptor (PR) and HER2 human epidermal growth factor receptor 2 (HER2) status using immunohistochemistry (IHC). Therefore, introducing a reproducible and cost-efficient method is valuable. The aim of the project is to validate RNA-based method (PCR) for the detection of biomarkers having prognostic and predictive values in cancer.

METHODS Pathologically confirmed invasive breast cancer patients were enrolled into the project. For establishing a PCR detection assay a prospective German cohort was used as a validation study and secondly this assay was transferred to an Ethiopian retrospective study. RNA of formalin fixed paraffin embedded (FFPE) tumor blocks was extracted using MiRNeasy kit (Qiagen), concentrations and quality was measured using NanoPhotometer (EMBELEN). cDNA was synthesised with BioZym cDNA synthesis kit (BioZym) following manufacturer instruction. Endpoint PCR conditions were optimised for the detection of low and high abundant transcripts. In each PCR run, BT474 (positive control) and BT-20 (negative control) cell lines were used as a positive and negative control for each gene of interest (GOI) expression analysis. Gel documentation was done using ImageQuant LAS 4000 machine. Statistical analysis was done by SPSS version 20. Ethical clearance was secured from the respective institutions IRB.

RESULT Out of the validation cohort, IHC result revealed that 58.3%, 41.7% and 41.7% were positive for ER, PR and HER2 status. 25% of the tumors were TNBC. The PAM50 algorithm showed the distribution of intrinsic molecular subtypes which accounts for 17% (Luminal A), 33% (Luminal B), 25% (HER2 enriched), and 25% (Basal-like). The RNA expression was 58% for ESR, 17% for PGR, and 33% for ERBB2. The comparison of IHC with RNA based expression revealed that the positive predictive value and negative predictive value for ESR1, PGR and ERBB2 gene was 71.4% and 60%, 100% and 70 % and 25% and 50%, respectively. A good correlation was observed between IHC and PCR method for the respective genes.

CONCLUSION The majority of tumors were hormone receptor positive. In the validation cohort, good agreement was shown between IHC and RNA based expression level. We suggest the use of PCR in LMICs including Ethiopia.

Kitonyo Devotsu R

SEGMENT 2: EQUITY IN CANCER RISK FACTOR MANAGEMENT AND PREVENTION

Kitonyo Devotsu R[1]
[1]McCabe Centre for Law and Cancer

MEETING ROOM 1

Thursday
7 November 2019
08:30–10:00

OBJECTIVE The objective of the presentation is to discuss how human rights based advocacy approaches can be used to achieve equity in cancer risk factor management and prevention.

METHODS Based on review of available literature, the presentation shall discuss:

1. How differences in age, gender and socioeconomic status affect exposure to cancer risk factors (tobacco, alcohol, physical activity, diet, air pollution) in terms of consumption and adverse health outcomes
2. How differences in age, gender and socioeconomic status affect access to health information/ education and preventative/rehabilitative services like tobacco cessation, rehabilitation from alcohol addiction or weight management
3. Analysis of structural barriers to accessing cancer risk factor management/preventive services,
4. Drawing from African case studies, how human rights based advocacy can be used to improve cancer risk factor prevention and management. Examples will be drawn from litigation on the right to health to get legislation enacted to address risk factors, use of patient voices to humanise the issue, use of media to highlight the human rights elements and coalition building between cancer organisations/risk factor organisations and organisations working on human/women/youth/ minority rights

RECOMMENDATIONS The presentation shall make some recommendations for actions by cancer control advocates, health workers and policy makers. Useful resources will also be showcased

Dharsee N

NEEDS ASSESSMENT FOR DEVELOPING SURVIVORSHIP SERVICES FOR BREAST CANCER SURVIVORS IN TANZANIA AND GHANA

Dharsee N[1], Stanway S[2], Wiafe Addai B[3], Wiafe S[5], Murray L[6], Wiseman T[6]
[1]Ocean Road Cancer Institute, [2]Institute of Clinical Research, [3]Peace and Love Hospital, [4]Guys and St Thomas' NHS Foundation Trust, [5]Loma Linda University, [6]The Royal Marsden NHS Foundation Trust

MEETING ROOM 4

Thursday
7 November 2019
13:30–14:30

OBJECTIVE While breast cancer (BC) incidence is increasing in Low-and Middle-Income countries (LMIC), with an 82% predicted increase in BC diagnoses in Tanzania by 2030, cancer survivorship is a serious challenge in such countries where cultural beliefs act as a barrier to accessing treatment and support. The Holistic Needs Assessment (HNA) is a tool which is offered to all people at the end of cancer treatment developed as part of the UK National Cancer Survivorship Initiative. This study aimed to explore the feasibility of implementing the HNA to capture the unmet needs amongst women who had received treatment for primary breast cancer at two centres in Tanzania and Ghana.

METHODS The study used a mixed-methods design in two phases. In Phase 1, focus group interviews were conducted with women following breast cancer treatment and staff to ask about their needs, evaluate current practice, resources and the potential challenges for developing survivorship services in Tanzania and Ghana. Interviews were transcribed, translated and analysed using framework analysis. In Phase 2, the UK Holistic Needs Assessment was translated and adapted to be culturally sensitive so that it could be used as a way of scoping unmet need at the end of primary breast cancer treatment. Descriptive statistics were used to analyse this data. This paper reports on Phase 1.

RESULTS Emergent themes show the impact of having breast cancer on the women's lives. Themes include the impact of cultural beliefs on the experience of women with breast cancer, accessibility of treatment and services, the impact on finance, the women's role in her family, and lack of communication and support. Women spoke about the importance of peer support from others with breast cancer and challenging cultural beliefs and practices.

CONCLUSIONS These findings suggest that understanding physical, financial, and psychological challenges in breast cancer survivors face even many years after completing treatment could help improve how these needs are met in an evidence based and resource sensitive manner.

Dharsee N

OVERVIEW OF CURRENT EFFORTS IN PROGRAM EVALUATION: TANZANIA CLINICAL ONCOLOGY TRAINING PROGRAM

Dharsee N[1,2], Maunda K[1,2], Mwaiselage J[1]
[1]Ocean Road Cancer Institute, [2]Muhimbili University of Health and Allied Sciences

PLENARY VENUE

Friday
8 November 2019
12:45–13:45

The MMed Clinical Oncology program in Tanzania was established in the year 2010 under the Muhimbili University of Health and Allied Sciences (MUHAS) in collaboration with the Ocean Road Cancer Institute (ORCI), in response to the need for a local postgraduate training program in oncology to cater for the ever-increasing numbers of cancer patients in the country. The program is spread over 6 semesters (3 years), with residents receiving a review of basic sciences at MUHAS, and then at ORCI where they undergo clinical apprenticeship, and are trained in various 'core' examinable subjects including physics, radiobiology, professional ethics, cancer epidemiology and prevention, and radiotherapy equipment, planning and delivery procedures. A research project in the form of a dissertation is also required for successful completion of the program. Over the 9-year period since it was established, the program has produced 32 alumni and currently has 23 residents in training. It has a strong regional intake, receiving students from Kenya, Rwanda, Ethiopia, Nigeria, Congo and the Comoros. Nearly all graduates from the program are practicing oncology, more than 80% having access to radiation therapy equipment in a public facility. Nearly half are also actively involved in research and/or academic activities. Identified areas for strengthening the program include increasing the program length to 4 years, adding core modules in medical oncology and updating existing courses in radiotherapy to meet current needs for training in 3-Dimensional and conformal radiotherapy techniques. While waiting for formal curriculum review to incorporate these changes, initiatives have been made within the department and at ORCI to address the gaps in the program structure; these include In-house chemotherapy training modules, 'sandwich' training, short term fellowships, observerships and capacity building in 3-D radiotherapy for faculty and residents.

Dhokotera T

SECOND PRIMARY CANCERS AMONGST HIV POSITIVE AND NEGATIVE CANCER PATIENTS IN SOUTH AFRICA, 2004–2014

Dhokotera T[1,2], Bohlius J[3], Egger M[3,4], Ncayiyana J[2,4], Singh E[1,2], Sengayi M[1,2]
[1]National Cancer Registry, [2]University of the Witwatersrand, [3]Institute of Social and Preventative Medicine, [4]University of Cape Town

MEETING ROOM 4

Wednesday
6 November 2019
10:30–11:30

OBJECTIVE To determine the spectrum and time to occurrence of second primary cancers (SPC) stratified by HIV status.

METHODS Using linked cancer and HIV data from the South African National Cancer Registry and the National Health Laboratory service respectively; we identified individuals with first and second primary cancers. The sequence of cancer occurrence was determined from the cancer diagnosis date in patients with SPCs. We excluded individuals with cancers diagnosed on the same day (n=281). We compared median time to SPC diagnosis between HIV positive and negative individuals using the non-parametric Wilcoxon rank sum test. As a sensitivity analysis, we excluded non-melanoma skin cancers.

RESULTS Of the 292 589 public sector records, 7819 patients had more than one primary cancer. Excluding non-melanoma cancers, (n=3100), prostate 14% (n=663), breast 13% (n=602), colorectal 7.1% (n=330) and cervix 6.3% (n=294) cancers were the top SPCs in the cancer database. The HIV status was known for 1469 (19.5%) SPC patients, of which 449 (31%) were HIV positive. Amongst HIV positive people, cervix 14% (n=47), non-Hodgkin's lymphoma 12% (n=38), breast 12% (n=38) and Kaposi sarcoma 11% (n=35) were the most common SPCs. For HIV negative individuals, breast 18% (n=115), prostate 11% (n=73), colorectal 7.7% (n=51) and cervix 6.7% (n=44) were the leading SPCs. Adjusting for first primary cancer diagnosis older age and white ethnicities compared to black ethnicities were predictors for SPC. Amongst those with SPCs, the median time to SPC diagnosis was 19 months (IQR: 5–46) among HIV positive individuals, 23 months (IQR: 9–48) in HIV negative individuals and 28 months (IQR: 9–57) for those with an unknown HIV status. The median time to SPC diagnosis was 9 months shorter in black ethnicities compared to white ethnicities (p<0.001).

CONCLUSIONS Cancer prevention and screening should remain a priority even in individuals previously diagnosed with cancer.

Diallo T

P065 | CONTRIBUTION À L'ACCÈS UNIVERSEL AUX SOINS DE SANTÉ : EXEMPLE DU CENTRE DE SANTÉ ARISTIDE MENSAH DE YEUMBEUL À DAKAR, SÉNÉGAL DANS LA LUTTE CONTRE LES CANCERS

Diallo T[3], Jalloh M[1], Kane P[3], Diallo A[1], Mané I[1], Niang R[3], Dial C[1], Nodye M[1], Labou I[1], Ndiaye A[2], Diop-Ndiaye H[2], Touré-Kane C[2], Niang L[1], Gueye S[1]

[1]Hôpital Général de Grand Yoff, [2]Hosp. Center Univ. Aristide Le Dantec, [3]Centre de Santé Aristide Mensah

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION Le cancer est un problème de santé publique dans le monde surtout en Afrique subsaharienne, particulièrement au Sénégal. Plus de la moitié de la population ne bénéficie pas d'une couverture sanitaire alors que la prévalence des cancers va crescendo, notamment celui de la prostate, du sein et du col de l'utérus. Le but de notre étude était d'évaluer la contribution du CSAM en matière de lutte contre les cancers.

MATÉRIELS ET MÉTHODES Nous avons effectué une étude prospective et descriptive, de Mars 2017 à Mars 2019, au CSAM, un centre communautaire qui, en plus des soins, développe une stratégie de lutte contre les cancers axée sur les concepts Information, Education et Communication(IEC). Durant les journées de sensibilisation, les participants bénéficiaient d'un entretien sur la pathologie du cancer ainsi qu'un toucher rectal, un dosage du PSA et une biopsie prostatique au besoin chez les hommes ; un frottis cervico-vaginal, une mammographie chez les femmes. Les cas suspects ou diagnostiqués étaient orientés et suivis dans des centres de référence comme l'HOGGY et le CHU Aristide Le Dantec.

RÉSULTATS Nous avions 148 hommes et 247 femmes. La moyenne d'âge était de 64 ans chez les hommes et 31 ans chez les femmes. Le toucher rectal était suspect chez 14% des hommes et le taux de PSA total était élevé dans 28% des cas. La biopsie prostatique, effectuée chez 27 cas suspects, avait objectivé un adénocarcinome prostatique chez 8 participants, soient 5% de l'effectif. Une prostatectomie radicale était effectuée chez 3 patients. Le reste bénéficie d'un traitement médical. Chez les femmes, nous avions offert 89 frottis cervico-vaginal et 158 mammographies.

CONCLUSION La sensibilisation et la vulgarisation des centres de soins au niveau communautaire peuvent contribuer efficacement à la lutte contre les cancers.

MOTS CLEFS santé, cancer, accès aux soins, Sénégal.

Dimande L

FREQUÊNCIA DOS TUMORES GASTROINTESTINAIS DA UNIDADE DE ENDOSCOPIA DOS SERVIÇOS DE GASTROENTEROLOGIA E ANATOMIA PATOLÓGICA DO HCM DURANTE 5 ANOS (2014–2018)

Dimande L[1], Vitor R[1], Ismail M[1], Perez O[1], Modcoicar P[1], Basilio I[1], Cumbana R[1]
[1]Hospital Central de Maputo

MEETING ROOM 3

**Wednesday
6 November 2019
13:30–14:30**

INTRODUÇÃO Estima-se que a nível mundial 18,1 milhões de novos casos de cancro são diagnosticados anualmente, causando 9,6 milhões de mortes em 2018 [1]. A incidência do câncer colorretal foi 6,1% com uma mortalidade de 9,2%. Em geral, a incidência do câncer colorretal ocupa o terceiro lugar com uma mortalidade observada em segundo lugar. Estas incidências são cerca de três vezes maiores nos países desenvolidos. Os Tumores Gastrointestinais passam a ser os mais frequentes na Europa em 24 % dos tumores, com especial incidência para os tumores do Estômago, Cólon e Recto1.

OBJECTIVO Este trabalho tem como objetivo determinar a frequência dos tumores gastrointestinais diagnosticados por endoscopia com confirmação histológica no Hospital Central de Maputo(HCM) durante 5 anos e correlacionar com o sexo, idade e localização anatómica.

METODOLOGIA Trata-se de um estudo, descritivo, transversal, retrospectivo de base hospitalar do Serviço de Gastroenterologia durante um período de 5 anos (2014–2018). Foi construída uma base de dados na folha de cálculo de Excell. Estudo das variáveis referentes a idade, sexo, localização anatómica dos tumores.

RESULTADOS: Das 8310 endoscopias realizadas, 642 (7,73%) foram sugestivos de câncro por endoscopia e destes 486 (5.85 %) foram confirmados por histologia. A maior parte dos tumores foi diagnosticado com idade média de 51 anos, o sexo feminino foi mais predominate 236 (52%) e masculino 227(48%). O tumor do Esôfago foi o mais observados 303 (62.34 %), seguido por estômago 57 (11.73 %), cólon 50 (10.29 %), recto 24 (4.97%).

CONCLUSÃO Em geral, a incidência do câncro esôfago ocupa o primeiro na frequencia dos tumores gastrointestinas no hospital central de Maputo seguido pelos cancros do cólon e reto. O sexo feminino foi o mais afetado. Demonstrando assim a necessidade de um programa de rastreio do cancro no pais.

Dimaras H

P066 | DEVELOPMENT OF A PATIENT EDUCATION BOOKLET FOR FAMILIES AFFECTED BY RETINOBLASTOMA

Brundage M[2], Hudani A[2], Irvine T[2], Njambi L[3,4], Kimani K[3,4], **Dimaras H**[1,2]
[1]The Hospital for Sick Children, [2]The University of Toronto, [3]The University of Nairobi, [4]Kenyatta National Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Retinoblastoma is a childhood eye cancer with heritable consequences. Our previous research with Kenyan families affected by retinoblastoma revealed their desire for a tangible educational resource explaining the heritable nature of the disease, preferably in the form of a booklet. The aim of this project, therefore, was to develop a patient education booklet through collaboration between doctors, nurses, parents, survivors, and support group leaders.

METHODS A human-centred design approach was employed, in which the study team consulted with clinician and patient stakeholder groups to design, produce and refine an educational booklet. Clinician stakeholders included: doctors and nurses managing retinoblastoma at Kenyatta National Hospital (Nairobi), Moi Teaching and Referral Hospital (Eldoret), and PCEA Kikuyu Eye Hospital (Kikuyu); cancer support group leaders; and child life specialists. Patient stakeholders included: parents of children with retinoblastoma; and survivors of retinoblastoma. Over 3 phases of consultation, the study team met with each stakeholder group to review booklet prototypes and collect feedback for its further refinement.

RESULTS The iterative, phased design process produced an educational booklet rich in images and stories, with complex genetic topics described in simplified terms. The images depict cartoons of families visiting doctors, and simplified diagrams of cells and genes. The booklet employs characters and stories to explain the nuances of heritable and non-heritable retinoblastoma. A guidebook was also created to direct implementation of the booklet during regular clinic visits, with the intention is to promote dialogue between clinicians and patients that would clarify difficult concepts and eliminate confusion.

CONCLUSIONS A novel educational tool for families affected by retinoblastoma was developed through collaboration with clinician and family stakeholders. Next steps include testing of the booklet in a prospective, pragmatic trial to evaluate its effect on knowledge.

Schmeler K

P067 | THE PROJECT ECHO VIRTUAL TUMOUR BOARD IMPROVES CARE FOR PATIENTS WITH GYNAECOLOGIC CANCER: THE IGCS – DA NANG ONCOLOGY HOSPITAL EXPERIENCE

Tran Q[2], Tran Q[2], **Schmeler K**[3], Plotkin A[5], Van Le L[4], Dinh T[1]

[1]Mayo Clinic, [2]Da Nang Oncology Hospital, [3]MD Anderson Cancer Center, [4]University of North Carolina, [5]University of Toronto

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE We present patient care outcomes based on the results of the International Gynecologic Cancer Society (IGCS) sponsored Project ECHO video conference tumour board from Da Nang Oncology Hospital (DOH). We also present the result of a survey of the tumour board participants.

METHODS We retrospective reviewed clinical cases presented at the Da Nang IGCS sponsored videoconference tumour board. The clinical cases presented at tumour board were divided into 3 categories: no change, minor change or major treatment change made after tumor board discussion. An anonymous survey was sent to all participants to determine experience and satisfaction.

RESULTS 40 cases were presented at 20 tumour boards between July 2017 and March 2019. Nine cervical, 20 ovarian/fallopian tube/peritoneal, 2 uterine, 7 vulvar, and 2 unknown gynaecologic cancers were presented. Tumour board review led to major changes in treatment in 75% of cases. Review of pathology showed agreement between local pathologist diagnosis and tumor board pathologists in 21 cases (52%). The median number of attendees for each tumor board was 12. Attendees include gynaecologic oncologists, radiation oncologists, pathologists, medical oncologists, and general gynaecologists from Vietnam, Singapore, Japan, the United States and Canada. Attendees were surveyed with 100% of respondents rated the conduct of the tumour board as good or very good (7/7), and that it was easy to connect online (7/7). 4/7 (57%) agreed that it was easy to understand the discussion. All agreed that the discussion was relevant to the care of their patients (6/6). All respondents liked the format (6/6) of case presentations combined with a short lecture.

CONCLUSION Video-conferencing tumour board improves the care of patients with gynaecologic cancer by connecting physicians throughout the world. Changes in diagnosis and treatment often result from the discussion. Short lectures are a valuable source of didactic learning.

THE ROLE OF PATHOLOGY IN CANCER DIAGNOSIS AND CONTROL IN AFRICA: OPPORTUNITIES AND CHALLENGES

Diomande M

CANCER MANAGEMENT CHALLENGES FOR THE PATHOLOGIST IN SUB-SAHARAN AFRICA

Diomande M[1]
[1]Universite Felix Houphouët-Boigny

MEETING ROOM 2

Friday
8 November 2019
12:45–13:45

Anatomic Pathology is a medical specialty that plays a critical role in the management of cancers. Its importance could be summarised at five main levels :
- Diagnostic, by guiding clinical decisions depending on diagnostic criteria of tumors
- Theranostic, by determining phenotypic and molecular features leading to the choice of targeted therapies
- Prognostic, by generating predictive data to evaluate the evolution of cancers
- Epidemiologic, with the provision of data utilisable for political decisions : ressources allocation, cancer screening programmes, etc.
- Research, through collection of cells and tissues for translational research, biobanking and through autopsies.

In sub-Saharan Africa, these goals are achieved with difficulty due to :
- The shortage of infrastructure to develop and maintain equipment and scale up the demand in pathology services
- The low level of performance of pathology services due to the lack of personnel, equipment and reagents leading to long turnaround times, sub-optimal cancer diagnosis and poor multidisciplinary coordination for patients treatment.

Solutions could be found through the mutualisation of technological resources, the training of specialists and technicians in sufficient number, the rationalisation of practices(SOPs, EQA…), the promotion of endogenous research to guide health policies and of multidisciplinary concertation for cancer patients care(tumor board), the advocacy for the discipline at national, regional and international levels including involvement of pathologists in politics and the promotion of public-private partnerships.

PRESENTATION 983

QUALITY OF CANCER REGISTRY STATUS IN AFRICA

Dlamini X
EXPERIENCES AND CHALLENGES WITH CANCER REGISTRATION IN ESWATINI

Dlamini X[1], Haumba S[2], Hlophe N[1], Mahlalela N[2], Maseko T[2], Mhlanga N[1], Mkhontfo M[2], Okello V[2], Sithole L[1]
[1]Ministry of Health, [2]University Research

NEW HALL

Wednesday
6 November 2019
07:15–08:20

INTRODUCTION The Eswatini population based cancer registry expanded from laboratory based to population based cancer registry in 2015. The expansion has been mainly to improve the response of the burden of cancers and provides proficient evaluation of the current cancer situation in the country. It covers about 1,093,238 (2017, census) total country population, data abstracted from both public and private health facilities (pathology centres and lancet)

CURRENT STATUS The office has four officers trained on cancer registry principles, data analysis and CanReg use. They were further capacitated in Cancer epidemiology and Childhood cancers which includes the staging and Quality data indicators such as; Completeness, Validity, Comparability and Timeliness. In 2017 the registry was admitted as a member of African Cancer Registry Network.

EXPERIENCES The office ensure cancer sensitisation is done within the clinicians monthly in different facilities for sharing and data experiences updates within the different sources. Practical sessions on measuring and interpretation of own data completeness and validity; CanReg5 CI5 and data quality other software. A lot of capacity building has been done on data quality indicators, the process of establishment of the cancer control unit and development of the cancer control strategic plan. Through the gaps noted in data abstracted in the pathology lab which includes staging issues has helped the office to collaborate with other pathologists to strengthen the pathology services. The office has also helped in recruitment of the oncologist, medical officer and patient navigator to ensure a full capacity strengthen of the cancer management and care

CHALLENGES The common data quality challenges experienced in the registry are

i) Data incompleteness which include incomplete cancer data Information, poor record keeping, poor method of archiving and retrieval, and the weak bilateral relationship between registries and data source facilities. These results from unfavourable factors at the data sources

ii) Low validity of the data: There are challenges of diagnosing cancer in the country since we are experiencing some gaps in cancer diagnosis, staging and treatment.

Dlamini M

P252 | FACTORS INFLUENCING PALLIATIVE CARE AMONG PATIENTS WITH CANCER IN KWAZULU-NATAL

Dlamini M[1], Hlongwana K[1], Ginindza T[1]
[1]University of KwaZulu-Natal

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Empirically, cancer is a challenge for low-and middle-income countries. Over 30 percent of those in need of palliative care worldwide suffer from cancer and 80% of the patients in low and middle-income countries are diagnosed at advanced stages and can only benefit from palliative care services. The aim of this study was to determine factors influencing palliative care among patients with cancer.

METHODS A cross-sectional descriptive study was carried aimed at assessing factors influencing palliative care among patients with cancer in the targeted health care facilities and hospices. This study was conducted at Inkosi Albert Luthuli Central Hospital, Addington, Pietermaritzburg Grey's hospital, uMsunduzi and Chatsworth hospice. Participants were recruited through systematic random sampling and structured questionnaires were administered to a total of 394 patients with cancer. Data from the questionnaires were entered into REDcap (v8.11.7) and exported to IBM SPSS Statistics (v.25) for analysis.

RESULTS A total of 394 participated in the study. The mean ($\pm$ standard deviation [SD]) age for enrolled participants was 14.675 ($\pm$ 51.89) years. About 42.4% (n=167) between the age of 41–60 years old. Majority of the participants were females 77.7% (n=306), 64.5% (n=254) had primary education as the highest level of education. Over 82%(n=326) of the participants were unemployed, 55.8% living (n=220) in the urban areas, 59.1% were single (n=233) and 79.4% were black (n=313). A majority (n=156, 39.6%) reported lack of knowledge about cancer symptoms, treatment options available and palliative care services. Stigma (n=116, 29.4%), long waiting periods (n=40, 10.2%) for (results of accurate diagnosis, to be attended to by the doctor and for the next appointment), limited resources (n=33, 8.4%) and other barriers (n=186, 47.2%) which included, bad attitude from the healthcare providers, transport issues, unemployment, culture and religion.

CONCLUSION Awareness and knowledge about cancer, treatment options available and palliative care services need to be improved in especially among patients with cancer (particularly those from low socio-economic backgrounds) hence utilisation of palliative care could be maximised thereby providing a good quality of life by the sufferers and their families until the end of the journey.

Dlamini X

P331 | CHALLENGES OF CERVICAL CANCER DIAGNOSIS AND TREATMENT SERVICES IN ESWATINI

Dlamini X[1], Parkson M[2], Okello V[2], Hlophe P[1], Chilwesa P[1], Liu B[2]
[1]Ministry of Health, [2]African Cancer Registry Network

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To determine the number of cervical cancer patients diagnosed and initiated to treatment services.

METHODS A purposive sampling was done to collect information on cancer cases diagnosed from 2016 to 2018, in all the regional hospitals which have diagnostic equipment and able to manage cervical cancer patient. The source of the data included medical records, referral records, disease index cards, death certificates mentioning cancer as the contributory cause of death and patient-care registers. Data was captured in CanReg 5 software, multivariate generalised linear mixed regression models were used to assess the association between patient diagnosed with cervical cancer variables and unmet need for treatment

RESULTS A total of 1252 women were diagnosed with cancer among the top five cancers of which 60.4% (95% CI: 40.1%, 65.7%) had invasive cervical cancer. Of these diagnosed for cervical cancer only 31.6% were able to access treatment (chemotherapy and/or radiotherapy) whilst the majority 68.4% were either on palliative care or had succumbed to death. Higher odds [AOR= 17.1(95% CI: 15.3%, 21.9%)] of women diagnosed with cervical cancer and on treatment were observed in women aged 40 -49 years whereas lower odds [AOR= 1.2 (0.1%, 1.8%)] were among the women aged 50> compared to 35–49 years. Most of the cervical cancers recorded in the cancer registry are diagnosed at stage 2b.

CONCLUSION Despite limited resources, most patients were able to be diagnosed for cervical cancer, however only few were able to access curative treatment. The existing infrastructure of cervical cancer awareness and screening may only provide the ideal framework for scale-up of cervical cancer prevention in resource-constrained countries.

Donaldson S

STRENGTHENING THE HEALTH WORKFORCE IN AFRICA THROUGH FELLOWSHIPS TO ADVANCE CANCER CONTROL

Donaldson S[1], Graham K[1]
[1]Union for International Cancer Control

MEETING ROOM 4

Thursday
7 November 2019
13:30–14:30

OBJECTIVE To increase capacity in the African cancer workforce through international fellowships, that allow knowledge exchange, network creation and dissemination of skills to the home organisation, thus maximising overall impact.

METHODS Union for International Cancer Control adapted its Technical Fellowship programme in 2017, creating two sub-programmes: one for the Francophone Africa region (Bourses pour l'Afrique Francophone), with support in French, and a second (African Cancer Fellowships) for those working in cancer care delivery in Africa. Both opportunities were highlighted at the 2017 AORTIC conference.

RESULTS As a result, 125 fellowship applications were received from Africa during 2017 and 2018, compared to only 25 applications in 2016. For Francophone Africa, 72 applications were received, compared to 4 in 2016. 57 fellowships were awarded to candidates from Africa during 2017 and 2018, compared to 9 in 2016, and 31 of these to Francophone Africa, up from 3 in 2016. Fellows went on international one-month visits within Africa or further afield, gaining hands-on experience in cancer registration, radiotherapy, surgery and palliative care. 12 Fellows also participated in the 2018 World Cancer Congress, showcasing their work and receiving additional training and networking opportunities through a workshop on cancer care delivery in Africa. Fellows' feedback about their experience was positive, with 90% able to effectively implement the skills they had learned abroad, organising workshops and presentations to disseminate the new knowledge and skills to their colleagues. Outcomes of the fellowship visits included publication of population-based cancer data in South Africa, radiotherapy training on a LINAC machine using 3D technology in Tanzania and establishing a new palliative care centre in Egypt.

CONCLUSIONS Dedicated fellowship programmes substantially increased engagement from the region, supporting long-term development of the health workforce for cancer. Applicants from Africa are encouraged to apply for Technical fellowships and Bourses pour l'Afrique Francophone.

Donkor A

EXPERIENCES OF BARRIERS AND FACILITATORS TO ESTABLISHING AND SUSTAINING RADIOTHERAPY SERVICES IN LOW- AND MIDDLE-INCOME COUNTRIES: A QUALITATIVE STUDY

Donkor A[1,2], Luckett T[2], Aranda S[2,3], Phillips J[2]
[1]Korle-bu Teaching Hospital, [2]University of Technology Sydney, [3]Cancer Council

MEETING ROOM 4

Friday
8 November 2019
12:45–13:45

OBJECTIVE Achieving universal radiotherapy access is desirable. However, the factors contributing to the establishment of safe and efficient radiotherapy services in low- and middle-income countries (LMICs) are poorly understood. Therefore, the aim of this study was to identify and describe the perceived barriers and facilitators to establishing and sustaining high-quality and accessible radiotherapy services in LMICs.

METHOD AND ANALYSIS An exploratory-descriptive qualitative study using semi-structured telephone interviews was undertaken. Purposive and snowball sampling techniques were used to recruit participants with experience of establishing radiotherapy in LMICs. The WHO Innovative Care for Chronic Conditions Framework informed the interview guide and the inductive data analysis. A constant comparative data analysis approach was adopted which allowed for an inductive and deductive to be completed.

RESULTS Seventeen participants were interviewed, 10 were working permanently in 9 LMICs and seven were permanently employed in four high-income countries. The majority were radiation/clinical oncologists (n=11) with a smaller number of medical physicists (n=3), radiation therapists (n=2) and one administrator. Three themes were developed, which included: 1) committing to a vison of improving cancer care; 2) making it happen and sustaining a safe service; and 3) leveraging off radiotherapy to strengthen integrated cancer care. Each of these main themes had several sub-themes, which were illustrated in a thematic map. Participants described the need for national radiotherapy development plan, project management plan, investment in workforce and comprehensive care and support.

CONCLUSION International efforts are underway to support LMICs in committing to the vision of universal access to radiotherapy and to establish innovative service models that focus on integrating cancer care across the disease trajectory. Promoting more integrated models of cancer care are required to optimise LMICs investment in radiotherapy and to improve patient outcomes.

Dumas A

HEALTH BEHAVIOURS AND THEIR DETERMINANTS AMONG ADULT SURVIVORS OF CHILDHOOD CANCER

Dumas A[1,2], Pinto S[1,2], Fresneau B[1,2], Hounsossou H[3], Mayet A[4], Marchi J[4], Pein F[5], Jackson A[1,2], Mansouri I[1,2], Journy N[1,2], Diallo I[1,2], Rubino C[1,2], Oberlin O[2], Haddy N[1,2], De Vathaire F[1,2], Allodji R[1,2]
[1]CESP, INSERM U1018, [2]Institut Gustave Roussy, [3]Univ. of Abomey-Calavi, [4]Center for Epidemiology and Public Health of the French Army (CESPA), [5]Institut de Cancérologie de l'Ouest

MEETING ROOM 4

**Thursday
7 November 2019
10:30–11:30**

BACKGROUND Health promotion is important for childhood cancer survivors (CCS) given the many late effects that they face. Health behaviours of CCS are generally studied separately, despite the existing evidence suggesting that health risk behaviours are not independent. To our knowledge, there are few studies that examined the clustering of healthy risk behaviours among childhood cancer survivors.

METHODS The present study included 3149 patients treated in France for solid cancers in childhood before 2000. Health behaviours were reported using a questionnaire sent by mail. Latent class analysis was used to identify health behaviour patterns using data regarding physical activity, smoking, cannabis use, and alcohol consumption. Multinomial logistic regression analysis was used to examine the associations between these latent health behavior patterns and demographic, social, health, and treatment-related risk factors.

RESULTS Three health behaviour patterns emerged: 'Low-risk' (n = 1099, 34.90%), included the participants who exhibited the lowest probabilities for all risk behaviours; 'Insufficiently active' (n = 1459, 46.33%), and 'High-risk' (n = 591, 18.77%) for survivors who exhibited the highest probabilities for smoking (≤10 cigarettes per day, 11 to 20 cigarettes per day, or ≥ 21 cigarettes per day), cannabis use, and alcohol consumption (≥ 3 drinks per week). The multinomial logistic regression analysis revealed that male survivors, with a higher education (beyond high school), who were ≥ 12 years at diagnosis, and treated by radiation therapy alone or no radiotherapy and nor chemotherapy were significantly more likely to be in the high-risk group than the low-risk group.

CONCLUSIONS As childhood cancer survivors remain a vulnerable population, to characterise survivor groups according to their health risk behaviours and to identify its potential predictors are important to design public health interventions. Ours findings are important for clinicians supervising this long-term follow-up care of CCS, in order to propose targeted health interventions.

Dunn J

P005 | MAMMO-50: MAMMOGRAPHIC SURVEILLANCE IN BREAST CANCER PATIENTS OVER 50 YEARS OF AGE

Dunn J[1], Donnelly P[2], Evans A[3], Marshall A[1], Ramirez M[1], Young A[1]
[1]University of Warwick, [2]Torbay NHS Trust, [3]University of Dundee

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES There is a lack of evidence/consensus amongst surgeons on optimum frequency or duration of follow-up including mammography for breast cancer patients aged 50 years and older at diagnosis. Mammo-50 has the opportunity to gather patient reported outcomes and their perspectives on follow-up. Understanding unmet patient reported needs helps focus on education and strategic interventions for patients. This is particularly important for low- and middle-income countries who may not have the full range of support and benefits that are routinely offered in the Western healthcare setting.

METHODS Mammo-50 trial has recruited over 5000 women in a randomised trial assessing duration of mammographic surveillance for women over 50 years old at diagnosis and 3 years post curative surgery. 91% of women to date have agreed to participate in a quality of life sub-study (QoL) which collects information about symptoms and long-term side effects. 74% of women to date have consented to enter the Qualitative sub-study (QSS). In addition, a national patient-led survey on follow-up was developed by the Independent Cancer Patients' Voice (ICPV) to gather patients' experience of follow-up. Mammo-50 QoL sub-study collected patient questionnaires at baseline and at each follow-up visit. The QSS sub-study carried out focus groups to gather patients' experiences and perceptions of follow-up, and inform the topic guide for further in-depth, semi-structured telephone interviews from Mammo-50 participants. Ethics and consent were obtained for audio-recordings.

RESULTS Mammo-50 patient questionnaires indicated that 28% of patients had high levels of distress due to concerns about fatigue, sleep, worry/anxiety, memory/concentration, and pain. Mammo-50 focus groups and individual interviews indicated that patients in general were satisfied with their care and happy to be in a trial. The ICPV survey indicated that over 2/3rds of respondents said they had some unmet needs during their follow up period; these were varied and included both physical and psychological needs.

CONCLUSIONS In summary, when given the opportunity to report unmet needs through questionnaires/surveys, patients often report things which could be causing them distress, but which may go unnoticed in routine follow-up. Understanding these unmet needs will help policy makers when defining strategies for follow-up.

Dunn J

P051 | PATIENT REPORTED EXPERIENCES FROM THE PERSEPHONE TRASTUZUMAB DURATION EARLY BREAST CANCER TRIAL

Dunn J[1], Wilcox M[2], Gasson S[1], Hiller L[1], Young A[1], Earl H[3]
[1]Warwick Clinical Trials Unit, [2]Independent cancer patient voice, [3]University of Cambridge

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE PERSEPHONE is a Phase 3 randomised non-inferiority trial comparing 6 months of trastuzumab to the standard 12 months in patients with HER2 positive early breast cancer. Patients consented to a quality of life sub-study where information was collected about their experiences. Collecting 'quasi-qualitative' data via open-ended questions adds depth and complements quantitative quality of life data. It allows patients to report experiences that may otherwise remain unknown. This is particularly important in some low and middle-income countries where support for patients may be limited.

METHODS Alongside the toxicities reported on the trial case report forms (CRF) and patient booklets being collected, including quality of life (QoL) and Health Care Resource Usage, patients were invited to record any other comments they had about their treatment. Experiences were recorded prior to commencement of trastuzumab, then 3-monthly for a year, then every 6 months up to year 2. Within a mixed methods framework, both the trial researcher and patient representatives explored the information collected using thematic content analysis.

RESULTS Between October 2007 and July 2015, 4088 patients were randomised. In total, 5542 experiences were recorded from 2456 patients across the 6 time-points. Patients offered information on all aspects of the study, including their views on the treatment, their care, the QoL questionnaire and the research. Most often mentioned was the impact the treatment had on participants personally - physically, psychologically or socially. Most frequently cited were aches, pains and fatigue; for many, these did appear to be particularly distressing and intractable. In parallel, CRFs reported 20% of patients reporting a grade 3/4 toxicity during treatment (23% 12 months, 18% 6 months, p=0.004), with significantly higher rates of cough, pain, fatigue, chills and palpitations reported by patients having 12 months trastuzumab (p<0.05).

CONCLUSIONS Patients' experiences during and beyond trastuzumab highlighted the long-term cumulative effects of their treatment and confirm that patients do suffer from burdensome toxicity, which affects their QoL. These data are important for policy makers when defining supportive care strategies.

Dunn J

PERSEPHONE: 6 vs 12 MONTHS OF ADJUVANT TRASTUZUMAB IN PATIENTS WITH HER2 POSITIVE EARLY BREAST CANCER: RANDOMISED PHASE 3 NON-INFERIORITY TRIAL WITH DEFINITIVE 4-YEAR DISEASE-FREE SURVIVAL RESULTS

Earl H[1], Hiller L[2], Cameron D[3], Wardley A[4], Miles D[5], **Dunn J**[2]

[1]University of Cambridge, [2]Warwick Clinical Trials Unit, [3]University of Edinburgh, [4]University of Manchester, [5]Guy's and St Thomas' NHS Foundation Trust

MEETING ROOM 4

Friday
8 November 2019
08:30–10:00

OBJECTIVES Adjuvant trastuzumab has significantly improved outcomes for HER2+ EBC pts, using the 12m duration empirically adopted from the pivotal registration trials. A shorter duration could reduce toxicities and cost whilst providing similar efficacy. No reduced-duration trial to date has demonstrated non-inferiority. Duration studies are particularly important to some low- and middle-income countries who may not have access to new drugs.

METHODS PERSEPHONE is a randomised phase 3 non-inferiority trial comparing 6 to 12m trastuzumab, the largest reduced-duration non-inferiority trial internationally. Mapping onto standard UK practice, all HER2+ EBC pts were eligible. Stratification is by ER status, chemotherapy (CT) type, and CT and trastuzumab timing. The primary endpoint is DFS from diagnosis (first relapse or death from any cause). Randomising 4000 pts (1:1) enabled the trial to assess the non-inferiority of 6m (5% 1-sided significance, 85% power), defining non-inferiority as 'no worse than 3%' below the 12m arm's assumed 80% 4-yr DFS. The pre-planned definitive DFS analysis required 500 events.

RESULTS 4088 pts were randomised (Oct '07–Jul '15). ER+ 69%; CT – 42% anthracycline (A)-based/ 48% A and taxane (T)-based / 10% T-based; adjuvant CT 85%; sequential trastuzumab 54%. At 5.4 yrs median follow-up, there were 335 (8%) deaths and 512 (13%) DFS events. With a 4-yr DFS rate of 89% (90% CI 88–91) in both arms. The hazard ratio (HR) non-inferiority limit was set at 1.29. The calculated HR was 1.07 (90% CI 0.93–1.24, 95th percentile=1.22) demonstrating non-inferiority (HR<1.29) of 6m trastuzumab (1-sided p=0.01): Superiority p=0.49. Congruent results were found for overall survival and for the pre-planned landmark analyses. Cardiac events were reduced in 6m pts (3% v 8% of 12m pts stopping treatment due to cardiotoxicity (p<0.0001)).

CONCLUSION PERSEPHONE has demonstrated 6m of trastuzumab as non-inferior to 12m (3% non-inferiority margin). Given cardiac and other toxicities during months 7–12 of treatment, our results would support a reduction of standard trastuzumab duration to 6 months. Demonstrating non-inferiority in favour of a shorter treatment duration has obvious benefits for patients but also important strategic benefits to the healthcare system.

Durosinmi M

TARGETED THERAPY OF CHRONIC MYELOID LEUKAEMIA IN AFRICA: SUCCESS STORY AND CHALLENGES OF AN INTERNATIONAL COLLABORATION

Durosinmi M[1], Salawu L[1], Bolarinwa R[1], Owojuyigbe T[1], Kehinde T[1]
[1]Obafemi Awolowo University Teaching Hospital

MEETING ROOM 1

Tuesday
5 November 2019
11:30–13:30

OBJECTIVE The objective is to share experiences implementing the Novartis Innovative Glivec International Patient Assistance Programme (GIPAP) (now MaxAid/Max Access Solutions since 2017). Since July 2003, the programme provides free life-long Glivec, a novel tyrosine kinase inhibitor, to Nigerians living with Ph/BCR-ABL+ CML.

METHODS Confirmed cases of Ph/BCR-ABL+ CML are registered online with the donor agency and enrolled for the free Glivec supply, irrespective of age, gender, disease stage or prior therapy for the disease. Drugs for Nigeria are shipped periodically to the Obafemi Awolowo University Teaching Hospitals, Ile-Ife from where the medications could only be accessed.

RESULTS From August 2003 to December 2018, 1041 patients have been enrolled comprising 419 (40.2%) and 922 (59.8%) females and males, respectively. The age range of enrolees is from 3 - 87 years with a median of 38 years. The largest majority, 920 (88.4%) were within the age bracket 19 - 60 years. There are 34 (3.3%) paediatric cases aged 18 years and below and 87 (8.4%) older adults aged above 60 years. Enrolees who are intolerant or resistant to Glivec receive newer generations of TKIs like tasigna, bosulif, dasatinib and ponatinib at no cost but only on special request. Two major challenges currently confront the programme: (1) Poor treatment adherence (47%) perhaps because of the financial implications of accessing medication from a single centre in a large country like Nigeria, the cost of follow-up monitoring tests, fear of drug-related infertility, severe adverse effects such as cytopenias and fluid retention necessitating frequent treatment interruption and access to 2nd generation TKIs; and (2) Very small number of enrolees of 1,041 instead of a projected number of 150,000 based on projected annual global incidence of CML of 1/100,000 for a population of 150 million people and at annual growth rate of 2.6%. We believe the small number of enrolees has to do with the financial implications of a single drug collection point for all Nigerian patients irrespective of place of domicile.

CONCLUSIONS The CML targeted therapy programme is a great success, which is highly appreciated by health authorities in the country, such that we were able to obtain a perpetual customs waiver effortlessly since 2005. With decentralisation of treatment centres and assistance with the cost of monitoring tests and ready availability of newer generations of TKIs, many more Nigerians would benefit from the programme.

Durosinmi M

TREATMENT PROTOCOL FOR ACUTE LYMPHOBLASTIC LEUKAEMIA IN NIGERIAN CHILDREN AND YOUNG ADULTS AGED 30 YEARS AND BELOW – AN UPDATE

Durosinmi M[1], Adeodu O[1], Adefehinti O[1], Bolarinwa R[1], Owojuyigbe T[1], Fasola F[2], Olaniyi J[2], Brown B[2]
[1]Obafemi Awolowo University Teaching Hospitals Complex, [2]University College Hospital

MEETING ROOM 1

**Tuesday
5 November 2019
11:30–13:30**

OBJECTIVE The aim of the project is to develop a cost-effective treatment protocol for Acute Lymphoblastic Leukaemia (ALL) with tolerable toxicity and capability for induction of a durable and sustainable complete remission for Nigerian children and young adults up to age 30 years. The General Objective is to evaluate the short- and long-term response of treatment naïve ALL patients to the designed induction, consolidation and maintenance chemotherapeutic regimens.

METHODS The protocol, which is based on the Indian's highly tested MCP 841 Protocol, as modified (Magrath, et al. Euro J Cancer 2005; 41: 1570–83) shall be presented for discussion. The proposal is multicentred, involving two institutions with competent staff and infrastructure, the Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC) Ile-Ife and the University College Hospital (UCH) Ibadan, respectively. A total of 100 consenting treatment-naïve ALL patients with performance score of ≤ 2 Eastern Oncology Group (ECOG) shall be enrolled. Diagnosis shall be based on peripheral blood (PB) and bone marrow cells morphology, backed by cytochemical and immunophenotypic characterisation of the leukaemic cells, as appropriate. The disease shall be risk-stratified. ALL-L3 (FAB-3) morphology and/or B-ALL (SIg positive) shall be excluded from the study. Tumour cells shall be evaluated for qBCR/ABL fusion gene. All patients shall undergo pre-therapy plain chest radiograph, blood chemistries, HIV/AIDS screening with consent and screening for hepatitis B and hepatitis C viruses. Justification for the huge budget of N 265,445,250.00 shall be defended and challenges for funding shall discussed.

RESULTS Treatment outcome of the limited number of patients that could afford the cost of the regimen shall be discussed.

CONCLUSIONS Financial implication of the trial is very high. Therefore, internal funding agency is highly desirable. The cost is well above the capability of TETFUND, the heaviest national research funder in the country.

Dwomoh E

P068 | PROMOTING EVIDENCE-BASED PRACTICES FOR BREAST CANCER CARE THROUGH WEB-BASED COLLABORATIVE LEARNING

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The objective of the Project ECHO (Extension for Community Healthcare Outcomes) for Knowledge Summaries for Comprehensive Breast Cancer Control (KSBC) is to strengthen capacity to plan and implement evidence-based, resource-appropriate breast cancer control programs using virtual case-based learning within a global network of experts and peers.

METHODS The KSBC ECHO is a collaboration between the US NCI Center for Global Health, Women's Empowerment Cancer Advocacy Network and Breast Health Global Initiative in alignment with the Breast Cancer Initiative 2.5 campaign to reduce disparities in breast cancer outcomes. Using the ECHO model, we developed a 6-month web-based program to support the development of locally relevant, resource-appropriate cancer control programs through mentorship and use of the KSBCs. The course was advertised via existing networks, conferences and social media. Breast cancer control project teams from around the world applied and were accepted to participate in the KSBC ECHO. Fourteen biweekly ECHO sessions were held via Zoom and included a 10-minute case presentation, a 10-minute didactic presentation and discussion. Projects spanned the care continuum and sessions addressed preplanning; assessing need/barriers; setting objectives/priorities; and implementing/ evaluating. Baseline and endpoint surveys were used to evaluate the ECHO program, in addition to review of worksheets and revised project plans. Participants identified a mentor, completed worksheets and presented on the project status.

RESULTS Fifteen project teams from 11 countries (64 participants: advocates, clinicians, policymakers, researchers) were enrolled. Forty-three participants completed the baseline survey: 15 reported basic knowledge about assessing need and barriers, 18 reported average knowledge about setting objectives, and 16 reported basic knowledge about monitoring/evaluation. Endpoint survey data will be presented upon completion of the program and survey data analysis.

CONCLUSIONS The ECHO model encouraged interaction between policymakers, clinicians, advocates and technical experts while using evidence-based tools to develop locally relevant, resource-appropriate implementation strategies and policy recommendations.

Dwomoh E

P114 | ASSESSING COOKING FUEL TYPE AS RISK FACTOR FOR OESOPHAGEAL SQUAMOUS CELL CARCINOMA IN SOUTHWESTERN UGANDA

Dwomoh E[1,2], Okello S[1,3,4], Byaruhanga E[1], Corey K[6,7], Ocama P[5], Christiani D[3,6,7]
[1]Mbarara University of Science and Technology, [2]City College of New York, [3]Harvard T.H. Chan School of Public Health, [4]University of Virginia Health Systems, [5]Makerere University College of Health Sciences, [6]Harvard Medical School, [7]Massachusetts General Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Oesophageal squamous cell carcinoma (ESCC) is a highly prevalent cancer in sub-Saharan Africa with high mortality. The important roles of smoking and alcohol do not fully account for the risk of ESCC and risk factors vary geographically. We sought to determine the association between cooking fuel type and ESCC risk in southwestern Uganda.

METHODS We conducted a case-control study among patients presenting for Esophagogastroduodenoscopy (EGD) between 2013 and 2018 at Mbarara Regional Referral Hospital, Uganda. Presenting symptoms, cooking fuel, smoking, alcohol, and socio-demographic data were collected. An experienced certified endoscopist performed EGD on each participant. ESCC cases were those with upper- and mid-oesophageal mass on EGD and when possible confirmed by histology. Controls were defined by a normal EGD. Logistic regression determined factors associated with ESCC.

RESULTS There were 138 cases and 376 controls. Among cases, 103 (74.6%) were men, 7 (5.1%) smoked, 21 (15.2%) regularly consumed alcohol, and 95 (68.8%) both smoked and consumed alcohol. Seventy-five cases had tissue histology reports confirming ESCC. Common presenting symptoms were dysphagia (37%) and odynophagia (10.9%). Independent associations with ESCC included; men (AOR 4.16, 95% CI 1.79, 9.63) and age-group 50 to 59 (AOR 19.50, 95% CI 2.11, 180.47) for both genders. Among women, an increased risk was observed for those who both smoked and consumed alcohol (AOR 9.65, 95% CI 1.57, 59.09) than men (AOR 5.19, 95% CI 1.48, 18.28). Using both firewood and charcoal for cooking was associated with a less compatible trend towards ESCC (AOR 4.40, 95% CI 0.43, 45.01). Similar independent associations were found in sub-group analyses of confirmed ESCC and controls.

CONCLUSION In this study, smoking and alcohol, increasing age, and male gender were independently associated with ESCC. Further research is needed to elucidate the role of air pollution from biomass fuel as a risk factor for ESCC in low-income settings.

Dykstra M

LB048 | IMPACT OF COMMUNITY-BASED CLINICAL BREAST EXAM SCREENING IN BOTSWANA

Dykstra M[1], Malone B[2], Letsatsi V[3], Marlin T[2], Tapela N[4], Dryden-Peterson S[1,5]
[1]Harvard Medical School, [2]Journey of Hope Botswana, [3]Botswana Ministry of Health,
[4]Oxford University, [5]Brigham and Womens Hospital

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE To guide efforts to reduce breast cancer mortality, we evaluated a clinical breast exam screening program led by a Botswana-based NGO to determine number needed to screen to detect breast cancer, and clinical resources required for these diagnoses.

METHODS We performed a retrospective review of records from a large clinical breast exam screening program (2015–2018) that were conducted by Journey of Hope Botswana. Screening events were held in communities throughout rural and peri-urban Botswana, with clinical breast exams performed by volunteer nurses or physicians on women 18 and up. Individuals with detected abnormalities were referred for further testing and followed by the NGO until definitive diagnosis or loss to follow-up.

RESULTS Of 6120 screened women (50 men excluded), 371 (5.83%) were referred for further evaluation; 257 ultrasounds, 100 FNAs, 58 mammograms, and 31 biopsies were performed. In total, 6017 were determined to not have cancer, 92 were lost to follow-up (79 for <50 years and 13 for >50 years), and 11 were diagnosed with cancer (4 for <50 years and 7 for >=50 years). Overall breast cancer prevalence was calculated to be 18/10,000 (95%CI 8–29/10,000). Number needed to screen to detect one breast cancer was 1236 (95% CI 624 to 61576) for women <50 years and 168 (95% CI 97 to 646) for women ≥50 years. Number of diagnostic procedures per breast cancer detected was 88 for women <50 years and 13.4 for women ≥50 years. The median time to diagnosis for all women was 17 [1–24] days. Screening-detected tumors were smaller than tumors presenting through standard care, but this difference was not statistically significant.

CONCLUSIONS In a previously unscreened population, yield from community-based clinical breast exam screening was high and required relatively modest diagnostic resources. The strategy has the potential to reduce breast cancer mortality.

Dykstra M

P069 | ASSESSING IMPLEMENTATION AND FEASIBILITY OF A NOVEL POINT-OF-CARE DIAGNOSTIC DEVICE FOR CANCER

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE This project assesses the Botswana health system for optimal implementation of a novel point-of-care diagnostic device for lymphoma and breast cancer and determines the feasibility of device implementation into those settings.

METHODS i) Landscape analysis through interviews with key stakeholders from clinics and primary and tertiary hospitals focused on referral pathways and barriers to care for cancer patients. An integrated literature review was also conducted regarding causes of diagnostic delays.

ii) Pilot half-day training was conducted with diverse health worker cadres including varied degrees of lab experience, randomised to either in-person demonstration or simulated remote training with only videos and written materials. Participants were assessed on sample preparation and device use.

RESULTS i) In Botswana there is a long delay (mean 406 days) between first clinic presentation and cancer diagnosis, the longest delay of any step between symptom onset to treatment, in part because the majority of cancers originate in rural areas. This novel technology could reduce diagnostic times by enabling triage of patients from primary hospitals or rural clinics instead of requiring referral to tertiary centres. It could also reduce pathology bottlenecks at tertiary centres. ii) After training, 12/12 lab scientists learned to prepare samples and use the device with in-person or remote training. Of those with intermediate lab background, 6/8 were successful, and 1/5 with no prior lab background succeeded. Most errors were due to basic lab techniques, particularly pipetting. All participants who did not conduct the protocol successfully were confident they could learn with 1–2 more days of training.

DISCUSSION This study shows that inexpensive, rapid molecular testing devices for cancer have potential to decrease diagnostic delays in Botswana and other LMICs. Diverse cadres of health workers are able to prepare samples and operate the device, enabling decentralisation and simplification of the diagnostic algorithm.

Dykstra M

THE ASSOCIATION BETWEEN HIV AND CHANGE IN QUALITY OF LIFE AMONG WOMEN SURVIVING BREAST CANCER

Dykstra M[1], Sadigh K[2], Nkele I[3], Bvochora-Nsingo M[4], Efstathiou J[5], Tapela N[6], Dryden-Peterson S[2,3]
[1]Harvard Medical School, [2]Brigham and Women's Hospital, [3]Botswana-Harvard AIDS Institute Partnership, [4]Gaborone Private Hospital, [5]Massachusetts General Hospital, [6]Oxford University

MEETING ROOM 4

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVE Women living with HIV (WLHIV) experience decreased survival from breast cancer. We sought to determine whether WLHIV surviving breast cancer also experienced decreased post-treatment quality of life (QOL).

METHODS We included women enrolled in Thabatse Cancer Cohort presenting from October 2010 to September 2018 at oncology centres in Botswana for initial treatment of breast cancer. QOL was measured quarterly using the SF-8, which includes a physical composite score (PCS) and a mental composite score (MCS). We assessed change in PCS and MCS from 3 months post-treatment to 18 months post-treatment. We performed multivariable linear regression to model the relationship between change in QOL and HIV, age, wealth, and cancer stage.

RESULTS Of 478 women enrolled, 134 women died prior to 18 months post-treatment and 125 women had not reached 18 months post-treatment. A total of 31 (14.2%) women missing QOL measurements were excluded. Of the remaining 188 analysed, 45 (23.9%) were WLHIV and 143 (76.1%) were HIV-uninfected. Almost half (48.1%) had advanced stage (stage III/IV) and 84.6% received multimodality treatment with surgery and chemotherapy and/or radiation. Overall, PCS increased following treatment, $+ 2.22$ (95%CI 1.03–3.40), and MCS was largely unchanged, $+ 0.87$ (95%CI –0.57–2.31). HIV was not associated with impaired recovery in PCS or MCS. A non-significant association between HIV infection and improvement in PCS was observed, $+2.48$ (95%CI –0.34–5.30, p=0.087). HIV was not predictive of change in MCS, -0.073 (95%CI –3.56–3.42, p=0.97). In the secondary analyses of the components of the PCS, HIV was predictive of improved general health (p=0.037), but not of the other four PCS components. Younger age and increased wealth were non-significantly associated with improved PCS recovery.

CONCLUSIONS Concurrent HIV infection does not appear to impair recovery in quality of life among women surviving breast cancer.

Einck J

SAFETY AND FEASIBILITY OF A PRAGMATIC PRE-PLANNED, HYPOFRACTIONATED HIGH DOSE RATE BRACHYTHERAPY APPROACH TO CARCINOMA OF THE CERVIX IN SENEGAL

Einck J[1], Lau S[2], Fisher B[5], Shah M[3], Dieng M[7], Diagne M[7], Shulman A[4], Daugherty L[6], Brown D[1]

[1]Univ.of California San Diego, [2]Coastal Radiation Oncology, [3]Henry Ford Health System, [4]Radiating Hope, [5]Gamma West Cancer Services, [6]Alaska Cancer Treatment Center, [7]Hópital Aristide Le Dantec

MEETING ROOM 4

Friday
8 November 2019
12:45–13:45

OBJECTIVE The burden of cervical cancer is high in low- and middle-income countries (LMIC) where access to curative radiation treatment is limited. A non-profit organisation donated a high dose rate (HDR) brachytherapy after loading unit to the sole cancer centre in Senegal in 2013. We describe the initial experience of a novel treatment approach using pre-planned brachytherapy as a component of curative chemo-radiation in Senegal.

METHODS A prospectively maintained institutional tumour registry was reviewed to identify all patients treated with radiotherapy for cervical cancer between January 1, 2013, and December 31, 2014. Charts were reviewed for treatment details, disease control, and toxicity. Telephone interviews were also conducted using a questionnaire similar to the cervix cancer-specific patient-reported quality of life EORTC QLQ-CX24 instrument.

RESULTS 285 patients were identified as receiving radiotherapy for cervical cancer during the timeframe analysed. Of these, 58 received curative intent chemoradiotherapy including HDR brachytherapy. Brachytherapy dose was modified according to WPRT dose and tolerance such that up to 3 fractions of 7.5 Gy or 8 Gy each were delivered. Median EQD2 dose to point A, bladder point, and rectum point were 77 Gy, 72 Gy, and 72 Gy, respectively. One patient suffered uterine perforation during brachytherapy. Late toxicity information was available for 26 (45%) patients. Two patients developed late grade 3 toxicity. Two additional patients developed rectovaginal fistulae, one occurring after salvage hysterectomy. At a median follow-up of 17 months, 6 (26%) patients with ≥90 days follow-up developed local progression including three who were treated for recurrent disease.

CONCLUSIONS HDR brachytherapy using pre-planned templates is feasible and safe in the curative treatment of cervical cancer in LMIC. Our strategy for brachytherapy implementation in cervical cancer could be used as a model in other LMIC.

Ekanem I

P332 | CHANGING TREND OF CANCER INCIDENCE IN NIGERIA, CALABAR REGISTRY EXPERIENCE (2009–2017)

Ekanem I[1], Parkin D[2]
[1]University of Calabar, [2]University of Oxford

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To evaluate the trend in cancer incidence rates over two periods, 2009–2013 and 2016–2017 at a population-based cancer registry in Calabar, Nigeria.

METHODS Data from the Registry, for above periods were studied. The population covers two local government areas: Calabar Municipality and Calabar South (375,196 inhabitants in 2006, National Population Commission) and (510,532 inhabitants in 2017, National Population Commission and National Bureau of Statistics estimates.) Information on cancer cases was actively collected from designated health institutions in the defined population. Using IARC CanReg-5 software, abstracted information on registration forms were checked for duplicate registrations as well as validity of recorded information during data entry. Tumour topography and morphology were coded using the ICD-0 3 and converted to appropriate ICD-10 code for data analysis.

RESULTS In 2009–2013, 719 cancers were recorded, with an annual rate of 143 cases, about 12 cases monthly. 320 (45.5%) and ASR 78.8 per 100,000 occurred in males and 399 (55.5%) and ASR 86.9 per 100,000 in females. 374 cancers were recorded in 2016–2017, with 187 cases reported annually, approx. 16 (sixteen) cases seen monthly, suggesting an increase in the cancer incidence rates. 137 (36.6%) and ASR 56.9 per 100,000 occurred in males while 237(63.4%) ASR 106.4 per 100,000 affected females. Top five cancers in males in 2009–2013, were: Prostate (46%), Hodgkin's Lymphoma (5.0%),Kaposi's Sarcoma (4.5%), Colorectal and NHL (4.0% respectively) and Eye (3.5%). In females, the top five cancers were: Breast (39.2%), Cervix uteri (19.0%), Hodgkin's lymphoma (4.0%), Eye (3.4%)and Ovary (3.2%). Comparatively in 2016–2017, the five top cancers in males were: Prostate (35.8%), Lymphoma (12.4%), Eye (8%), Non-melanoma Skin (6.6%) and Colon, rectum and Anus (5.8%). Among females, the top five were: Breast (30.4%), Cervix uteri (23.6%), Lymphoma (11%), Ovary (4.6%) and Vulva/Vagina (4.2%)

CONCLUSION A changing trend in the cancer incidence rates in Calabar observed over the period 2009–2017, shows some variation in frequency and pattern of common cancers among both sexes in Calabar, Nigeria.

Eke G

EXPERIENCE OF PARENTS WITH TREATMENT OF CHILDHOOD CANCER IN SOUTHERN NIGERIA

Eke G[1], Akani N[1]
[1]University of Port Harcourt Teaching Hospital

MEETING ROOM 4

Thursday
7 November 2019
10:30–11:30

OBJECTIVE To ascertain the experiences of parents as their children go through cancer treatment and understand their challenges in order to devise effective ways of supporting them.

METHODS This qualitative study was conducted between June and November 2017. Data were gathered through semi-structured interviews held with 27 parents whose children were being treated for various cancers at the Paediatric Oncology Unit of the University of Port Harcourt Teaching Hospital, Nigeria.

RESULTS Respondents were 19 mothers, 2 fathers and 3 couples. Their children were aged 11 months to 15 years. Majority of respondent knew the diagnosis of their children while few could only name the site of the tumour. While undergoing chemotherapy, symptoms parents perceived as most distressing included vomiting, fever, pain, refusal to eat and falling of hairs. Financial constraint was the major challenge to treatment compliance. Parents perceived that getting more information on the child's illness, specifically concerning nutrition, and having more contact with doctors will help them cope better with their child's treatment.

CONCLUSION Parents of children with cancer experience various stressors and expressed the need for support and information, while improving communication between physician and parents will also contribute in aiding parents cope with cancer treatment.

Elly B

P362 | CLINICAL-PATHOLOGICAL PRESENTATION, TREATMENT AND OUTCOMES OF OVARIAN CANCER CASES AT MOI TEACHING AND REFERRAL HOSPITAL

Elly B[1]

[1]Moi Teaching and Referral Hospital/Academic Model Providing Access to Healthcare

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Ovarian cancer is the third most frequent cause of death amongst gynaecological cancers both locally and globally. It presents with vague nonspecific symptoms and is histologically heterogeneous. Management is primarily surgical followed by adjuvant chemotherapy depending on the histological type and the surgical stage.

OBJECTIVES To determine the clinical-pathological presentation, treatment and outcomes of ovarian cancer patients at Moi Teaching and Referral Hospital (MTRH), Eldoret.

METHODS Retrospective chart review of ovarian cancer patients managed between January 2010 and August 2017 at MTRH was done. Data were analysed using STATA version 15. Survival trends were generated using Kaplan Meier method.

RESULTS A total of 124 medical charts of patients with ovarian cancer were retrieved, 29 had incomplete data and were excluded, and 95 were evaluable and included in this review. Over half, (63%) presented in stage 3 and 4 though there was no significant association between histology and stage of disease [X2(6) =4.72, p=0.58]. The median age at diagnosis was 47 years with 55–80 years being the modal age group (36%). Majority (57%) were married and 83.9% were unemployed. Only 66% had documented histopathology, with Epithelial Ovarian Cancer (EOC) being most common (70%), [serous (50%) and mucinous (11.4%)]. Sex cord stromal tumours 11%. Germ cell tumours amounted to 11% (dygerminomas 50%and Yolk sac tumours (25%) Bivariate analysis revealed significant association only between histology and parity [X2 (6) = 28.8, p<0.001]. Those reviewed contributed a total of 138.2 person-years to the study and 11(12%) died, giving a disease-specific mortality rate of 79.6 per 1,000 person years (95% CI: 44.1–143.8). Mortality was highest among those with epithelial histology 109 (95% CI: 48.8–241.9) per 1,000 person years and those who had neoadjuvant chemotherapy then surgery as a treatment option, 373.1 (95% CI: 93.3–1491.8) per 1,000 person years. Those who underwent upfront surgery followed by adjuvant chemotherapy and sex cord stromal cancer had higher survival probability.

CONCLUSION Ovarian cancer at MTRH is diagnosed at advanced stages III and IV of disease and has a lower median age at presentation. EOC is the commonest and serous subtype is the most lethal. Mortality was highest among those with EOC and those who underwent neoadjuvant chemotherapy. Granulosa cell tumour is the only sex cord stromal type reported and it exhibited a higher survival probability. Germ cell tumours were mainly found in nulliparous women.

LIMITATIONS The main limitation was inadequate documentation.

Elmore S

LB013 | ESTIMATION OF BASELINE LYMPHEDEMA IN WOMEN WITH BREAST CANCER PERI-MASTECTOMY USING THE SEGMENTAL ARM CIRCUMFERENCE METHOD: A PROSPECTIVE, PILOT STUDY FROM ZIMBABWE

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Rates of lymphedema as a complication of breast cancer or related therapy are unknown in resource-limited settings. This pilot aims to provide a proof of concept for simple, low-cost lymphedema measurement and to estimate the baseline lymphedema prevalence.

METHODS A prospective cohort of women with non-metastatic breast cancer with planned or recent mastectomy with curative intent were enrolled beginning in March 2019. Baseline lymphedema arm measurements were taken bilaterally using the validated, segmental circumference method and translated to volumes using the cone frustum approximation. Contralateral arm volumes were used as the normal comparison. All measurements were performed by the same nurse coordinator trained in the technique. Detailed measurement methodology will be presented. Patients completed translated, adapted versions of validated general and breast cancer-specific quality of life surveys (EORTC QLQ-C30, QLQ-BR23). Approximately 50% of the cohort was recruited at the time of preliminary analysis, performed to compare results in relative to existing lymphedema cohort data.

RESULTS 29 women were enrolled with median age 50 (IQR 45–54). All had at least stage II disease (AJCC 2018): 19% (6) IIA; 25% (7) IIB; 31% (9) IIIA; 25% (7) IIIB. Ipsilateral arm volume data was complete for 27 women, with range 1421–3809 cc (SD 545). Difference between ipsilateral and contralateral arm volumes was <5% (no lymphedema) for 67% (18), 5–10% (potential early/sub-clinical lymphedema) for 22% (6), and >=10% (clinical lymphedema) for 11% (3). No significant difference was found by pre-operative versus post-operative status (p=0.13). Self-reported arm or hand swelling did not correlate measured volume but did correlate with self-reported social challenges related to illness (p=0.03).

CONCLUSION Estimated baseline lymphedema in this pilot cohort is 11–33%. Measurement using validated, segmental circumference measurements is feasible, low-cost and yields volume data comparable to existing cohorts. Lymphedema measurement and intervention should be considered for low-resource settings. True lymphedema prevalence would be straightforward to estimate in larger studies using this method.

Elzawawy A

MOBILISATION OF RESOURCES TO ESTABLISH AND DEVELOP RADIATION AND CLINICAL ONCOLOGY SERVICES IN LMICS. UPDATE OF WIN-WIN SCENARIOS

Elzawawy A[1,2]
[1]ICEDOC/Harvard GHC Win-win, [2]Harvard GHC Win-Win

MEETING ROOM 1

Friday
8 November 2019
10:30–12:00

The Harvard Global Health Catalyst Win-Win Initiative (cited here as The Win-Win initiative) aims at the increase of affordability better value cancer care in the underserved regions in the world via scientific approaches and win-win scenarios that consider the interests of different stakeholders. The gap is widening between the required clinical oncology services and what is available. Hence, it is not productive to continue to enumerate barriers and obstacles without exploring classic and innovative approaches to lessen their burden. Lack of financial resources – particularly in sub-Saharan Africa is frequently cited as one of the main problems. Africa is not of limited resources but we believe that it has resources that are not well mobilised to serve the cause of increase of clinical oncology cancer care. For all the underserved regions in the world this mobilisation needs an effective campaign and advocating (e.g the Win-Win Ambassadors), new strategies, stimulation of realistic incentives of stakeholders. For education and directed training The Win-Win launched The Global Oncology University (The GO-U) as a world online university with training in different sites. We also established ecancer4all (ecancer4all.com) and a consortium for researches focused on serving the cause of The Win-Win Initiative (www.icedoc.org/winwin.htm)

Ermel A

P171 | LONGER DURATION OF ANTIRETROVIRAL THERAPY IS ASSOCIATED WITH REDUCED DETECTION OF ONCOGENIC HPV IN HIV-INFECTED KENYAN WOMEN

Ermel A[1], Tonui P[2], Wong N[1], Tong Y[1], Maina T[4], Kiptoo S[3], Brown D[1]

[1]Indiana University School of Medicine, [2]Moi Teaching and Referral Hospital, [3]Academic Model Providing Access to Healthcare, [4]Maseno University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Women living with HIV have an increased risk of persistent high-risk HPV (HR-HPV) infections, pre-cancerous cervical lesions and cervical cancer. However, the effect of antiretroviral therapy (ART) use and duration of use on HR-HPV detection is not well understood.

METHODS HIV-infected Kenyan women without cervical dysplasia (normal VIA) were enrolled at a screening clinic in Kenya. Demographics were collected, and date of HIV diagnosis, initial CD4 count and HIV viral load, and ART details were determined. Enrolment HIV viral load and CD4 count were measured. Adjusted multivariate generalised estimating equations were fit to assess effects of HIV-related factors on HR-HPV detection (tested using the Roche Linear Array) in cervical swabs.

RESULTS 91 women (median age 38; range 21–48) were evaluated at enrolment and one year later. Median time from HIV diagnosis to enrollment was 8.3 years (range 0.1–14.2 years); 95% were receiving ART; median duration of ART use was 4.4 (range 0–10.5) years. Median CD4 count was 473 cells/uL (range 0–1257) at diagnosis and 538 cells/uL (range 17–1474) at enrolment. Longer duration of ART was associated with decreased detection of HR-HPV, aOR 0.84 (0.73, 0.98), A9 HR-HPV types, aOR 0.79 (0.67, 0.94), and HR-HPV types not included in the nanovalent HPV vaccine, aOR 0.84 (0.72, 0.99). The specific ART prescribed had no significant effect on HR-HPV detection.

CONCLUSION Longer duration of ART use was associated with reduced HR-HPV detection in HIV-infected Kenyan women. The majority of the women had an undetectable viral load at enrolment, which may afford a protective effect when the duration of ART is considered. Further studies of larger numbers of women are needed to assess the effect of the specific ART regimen on HR-HPV detection over time. Such data may impact the decisions on the choice of ART for women living in sub-Saharan Africa.

Ezenkwa U

P272 | CYCLOOXYGENASE-2 EXPRESSION IN COLORECTAL ADENOMATOUS POLYPS IN IBADAN NIGERIA

Ezenkwa U[1], Mashor M[1], Akere A[1], Salami A[1], Ogunbiyi O[1]
[1]University College Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Most colorectal carcinomas (CRCs) show overexpression of cyclooxygenase-2 (COX-2) with variable effect on prognosis. This study determined COX-2 expression in colorectal adenomatous polyps (CRAs) as precursors of CRC.

METHODS Archived H&E stained slides of all adenomatous colorectal polyps diagnosed from January 1 2013 to December 31 2017 were reviewed retrospectively. Adenomas and degree of dysplasia were classified according to the World Health Organization criteria. Formalin fixed paraffin-embedded tissue blocks of eligible cases were retrieved and sectioned at 3μm thickness for COX-2 immunostaining using rabbit anti-human COX-2 antibody. COX-2 expression was scored semi quantitatively for intensity (absent (0)); faintly yellow (weak, 1); brownish-yellow (moderate, 2); brown (strong, 3). Absent or weak expression was considered negative while moderate and strong expression was considered COX-2 positive (overexpression). Other data included age, gender, polyp size and location within the colon and rectum. Polyp size was further categorised into < 10mm and ≥ 10mm (advanced polyp). Statistical test for frequencies, mean, and associations between variables was done using SPSS version 20. $p < 0.05$ was regarded as significant.

RESULTS Thirty-one adenomatous polyps (23 tubular, 4 villous, 4 tubulovillous) were retrieved from 31 patients, 17 males and 14 females with a mean age of 64.3 ± 12.0 years. Polyp size ranged from 2mm to 27mm (median size 7mm). Overall, twenty-two polyps were in the left colon and rectum, 11 (39.3%) were advanced polyp, and 16 (51.6%) showed high grade dysplasia. Fourteen (45.2%) polyps showed positive COX-2 expression; 10 (71.4%) of these were from men, 11(78.6%) were from left colon, 8 (57.1%) each were among high grade dysplastic and advanced polyps. Associations between COX-2 expression and gender, polyp location, size, and dysplasia grade were non-significant ($p > 0.05$).

CONCLUSIONS Male gender, Left-sided, advanced and high grade dysplastic CRAs show more COX-2 expression. Increased sample size is required to evaluate these observations further.

Ezenkwa U

P273 | PATTERN AND UTILITY OF TUMOUR BUDDING IN COLORECTAL CARCINOMAS USING ITBCC GUIDELINES: A LOW RESOURCE SETTING PRACTICE OBSERVATION

Ezenkwa U[1], Ogun G[1], Bamiro O[1,2], Mashor M[1], Okolo C[1], Ogunbiyi O[1]
[1]University College Hospital, [2]Ogun State University Teaching Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The 2016 International Tumour Budding Consensus Conference (ITBCC) proposed tumour budding as a prognostic biomarker in colorectal carcinomas (CRC). Given scarce survival data, this study determined the pattern and utility of tumour budding among Nigerian patients using the ITBCC guidelines.

METHODS H&E-stained slides of resected CRC tissues at the University College Hospital, and a private laboratory, both in Ibadan Nigeria from January 2008 to December 2017 were reviewed. Patient age, gender, and tumour size were obtained from archived surgical pathology records. Tumours were graded and staged according to the 2010 WHO and the 2017 UICC protocols respectively. Tumour budding was determined at X20 objective lens with a 20mm eyepiece field number diameter. Descriptive, Mann-Whitney and Chi-square test statistics were applied using SPSS 20; $p < 0.05$ was considered significant.

RESULTS Fifty-one (53.1%) of the 96 tumours included in this study showed tumour budding. There were 42 (43.8%) females and 54 (56.3%) males. Tumour bud count was low (0–4) in 66 (68.8%), intermediate (5–9) in 12 (12.5%) and high ($\geq$10) in18 (18.8%) tumours. Four tumours had pT1stage, 35 pT2, 37 pT3 and 20 pT4. Forty-three (44.8%) tumours were lymph node positive, and 10 (10.4%) had metastasis. Tumour budding occurred more with increasing pT and TNM stage. Patients' age and tumour size distribution were similar in the tumour budding and non-budding groups (52.4±17.1/58.5±13.9 years and 6.6±2.9/6.6±2.8cm, respectively). There was significant association between tumour budding and tumour grade ($p < 0.008$), pT stage ($p < 0.000$), lymph vascular permeation ($p < 0.000$), perineural invasion ($p < 0.003$), and nodal status ($p < 0.034$), but not with gender, metastasis, and TNM stage ($p > 0.05$).

CONCLUSIONS Tumour budding prevalence is high among our CRC patients and is associated with poor prognostic factors. Its use is supported for patient stratification and follow-up.

Ezzi M
FUTURE OF CLINICAL VS MEDICAL ONCOLOGY IN THE CONTINENT: PROS AND CONS

Ezzi M[1], Hammad N[2]
[1]University of Nairobi, [2]Queens University

MEETING ROOM 3

Tuesday
5 November 2019
14:30–16:30

While the burden of cancer in Africa is rapidly rising, there is a lack of investment in healthcare professionals to deliver care. A lack of well-trained clinical oncologists can result in significant cancer health disparities. A comprehensive regional survey of the clinical oncology workforce in Africa was conducted. An online survey was distributed within Africa through a network of physicians associated with the African Organisation for Research and Training in Cancer (AORTIC).

PRESENTATION 922

TUMOUR BOARDS IN AFRICA: HOW TO OPTIMISE THE FULL PARTICIPATION OF ALL MEMBERS OF THE MULTIDISCIPLINARY TEAM

Ezzi M

TUMOUR BOARDS IN AFRICA: AN EXPERIENCE OF AN ACADEMIC CENTRE IN KENYA

Ezzi M[1], Abinya N[1]
[1]University of Nairobi

PLENARY VENUE

Wednesday
6 November 2019
10:30–11:30

The multidisciplinary team meeting at the The Nairobi Hospital started in the year 2015. It is a formal weekly meeting that discusses diagnosis and management of cancer patients both within the institution and without. It is a general tumor board attended by attended by medical oncologists, surgeons, radiation therapists, pathologists, radiologists, and other specialists. Patient cases are discussed and the most appropriate management plan for the patient is made.

We assessed the use and efficiency of MTBs at the Nairobi Hospital. We looked at the process of case presentations, plans for therapy, changes in diagnoses and treatment plans for various types of cancer. This will eventually help in better patient management. The results from this study would inform and/or identify current gaps in the MTB meetings. It will allow us to put into place measures that enhances the implementation of multidisciplinary management of patients with cancer at the Nairobi Hospital and other cancer institutions.

Fadelu T

WEIGHT AT SURGERY AND SURVIVAL OUTCOMES OF NON-METASTATIC BREAST CANCER PATIENTS IN HAITI: REPORT FROM A RETROSPECTIVE COHORT

Fadelu T[1], Damuse R[2], Lormil J[3], Pecan L[4], Dubuisson C[3], Shulman L[5], Rebbeck T[1]
[1]Dana-Farber Cancer Institute, [2]Zanmi Lasante, [3]Hôpital Universitaire de, [4]Partners In Health, [5]Abramson Cancer Center, University of Pennsylvania

MEETING ROOM 3

Wednesday
6 November 2019
10:30–11:30

OBJECTIVE Obesity is associated with worse breast cancer (BC) outcomes in High-Income Countries (HICs). However, few studies have explored this association in Low and Middle Income Countries (LMICs). We evaluated the relationship between weight and non-metastatic BC outcomes in Haiti.

METHODS We conducted a retrospective observational study including 224 non-metastatic BC patients who presented between June 2013 and December 2016. We categorised weight at surgery by body mass index (BMI): normal weight (<25), overweight (25–29.9), and obese (>30). We described patient characteristics, diagnostic and treatment data, and outcomes. Our outcome endpoint was disease-free survival (DFS), time from surgery to recurrence, progression or death. We used Kaplan-Meier estimation to plot survival curves, censoring at last follow-up. Log-rank test was used to examine subgroup differences. Cox proportional hazard model was used to estimate the association between weight categories and DFS, while controlling for age, menopausal status, time to treatment, home location, stage, and pathologic grade.

RESULTS In this cohort, 83 (37%) were normal weight, 66 (29%) were overweight, and 75 (33%) were obese or larger. There were no statistical differences in baseline characteristics between the groups. The mean age was 49; 36% were post-menopausal; and 58% had locally advanced disease. For the cases with documented ER status, 63% were ER positive. Median follow-up time was 21.7 months. 26 patients died; 73 had disease recurrence. Median DFS for the whole cohort was 41.2 months (95% CI, 37.5 to 48.2). There was no significant DFS difference by weight status: median DFS for the weight categories were 44.4, 48.1, and 41.2 months respectively (Log-rank test P= 0.84). Compared to normal weight, overweight and obese patients had adjusted hazard ratios of 0.96 (95% CI, 0.55–1.69), and 1.02 (95% CI, 0.59–1.76) respectively.

CONCLUSIONS There was no difference in DFS by weight in this Haitian cohort. This finding may be explained by the disparate epidemiology of obesity in HICs compared to LMICs; higher body weights may be associated with higher socioeconomic status in LMICs. More studies are needed in LMICs to clarify the association between weight and BC outcomes.

Fernandez P

P116 | OBESITY PARADOX IN PROSTATE CANCER AMONG SOUTH AFRICAN MEN

Fernandez P[1], Irusen H[1], Ntlaba S[1], Ackermann H[1], Kaestner L[2], Lazarus J[2], Anderson D[2], van der Merwe A[1]

[1]Stellenbosch University, [2]University of Cape Town

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Obesity contributes to the pathogenesis of numerous cancers, including prostate cancer (CaP). In South Africa, the age standardised incidence rate (ASIR) (1986 to 2006) for CaP increased from 16.8 to 30.8 per 100,000, while the obesity rate increased from 29.1 to 31.1% in males. Our objective was to determine whether obesity might contribute to higher rates of advanced CaP at diagnosis, and local spread of the disease.

METHODS Between June 2016 and March 2019, a total of 110 South African men with histologically confirmed CaP (cases), and 122 age-matched men with no history of any cancer (controls) were recruited from Tygerberg Hospital and Groote Schuur Hospital, Cape Town, South Africa. Participants were grouped according to body mass index (BMI) into normal (BMI <25.0; including the underweight individuals <18.5), overweight (BMI 25.0–29.9), and obese (BMI ≥30.0). We investigated statistical differences in clinical, pathological and follow-up characteristics according to the different BMI strata (<25.0 vs. 25.0–29.0 vs. ≥30.0). The investigation was conducted in accordance to the principles of the World Medical Association's Helsinki Declaration (study number N15/06/054; NIH U01CA184374).

RESULTS For cases and controls, 62% and 55% had a normal BMI (<25.0), 23% and 26% were overweight (25.0–29.0), and 15% and 19% were obese (≥30.0), respectively. The median BMI and median ages between BMI groups for cases and controls, were similar. For cases, a significant difference in median PSA level was observed between the normal vs. obese group (120.00ng/ml vs. 16.00ng/ml; p=0.0063). Similarly, for cases, the normal group had a higher median Gleason Grade Group compared to the obese group (Grade Group 4 vs. Grade Group 2; p=0.0152). The BMI normal group was more likely to harbour an unfavourable pathological tumour stage ≥T3a at diagnosis compared to the overweight and obese groups (39% vs. 5% vs. 1%; p=0.0018). None of the BMI groups was more likely to develop metastasis (18% vs. 7% vs. 3%; p>0.05).

CONCLUSIONS Our data suggest an apparent CaP risk reduction associated with increased BMI in South African men, thereby possibly supporting the counter-intuitive concept of the obesity paradox.

NURSING ONCOLOGY

Fitch M

UNDERSTANDING RESEARCH FROM PROBLEM IDENTIFICATION TO PUBLICATION

Fitch M[1], Adejumo P[2], Anarado A[3], Maree L[4], Young A[5], Barton-Burke M[6]
[1]University of Toronto, [2]University of Ibadan, [3]University of Nigeria Nsukka, [4]University of the Witwatersrand, [5]University of Warwick, [6]Memorial Sloan Kettering Cancer Centre

PLENARY VENUE

Tuesday
5 November 2019
11:30–13:30

This is an open mic session designed to explore topical issues in oncology research from research problem to dissemination of the findings. We will highlight some major mistakes researchers make in their attempt to start a research project or submit an article for publication, drawing from the experience of seasoned researchers. We hope to increase participants' interest in research and publication. The session will take the form of a "talk show" with co-hosts interviewing a number of experts about challenges in research – getting started, identifying a researchable problem, researchable areas in oncology, gathering data, presenting results, publishing in academic journals, key issues and challenges in conducting oncology research, grant writing and collaborating with other researchers. The audience will also have the opportunity to ask questions of the experts as well. It is anticipated the "show" will help attendees better understand how to overcome some of the major challenges in conducting research.

Galukande M

P363 | BARRIERS TO BREAST CANCER TREATMENT IN THE PROSPECTIVE AFRICAN BREAST CANCER-DISPARITIES IN OUTCOMES (ABC-DO) STUDY

Galukande M[1], Foerster M[2], ABC-DO Team
[1]Makarere University, [2]International Agency for Research on Cancer

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Breast cancer (BC) is now the most common female cancer in sub-Saharan Africa (SSA). However, survival from the disease in SSA is among the lowest in the world. Downstaging efforts are key to improving survival but they will only succeed if timely and adequate treatment is assured. Data on barriers to BC treatment access in SSA are, however, limited.

METHODS Data from the prospective multi-country ABC-DO study were analysed to examine percentage of newly diagnosed BC patients who received curative treatment (i.e. systemic, surgery and/or radiotherapy) across different healthcare settings in Uganda, Nigeria and Namibia, and identify its socio-demographic and clinical determinants. Treatment data were systematically extracted from medical records and regular patient follow-up interviews to generate a binary indicator of treatment received within 12 months of diagnosis, which was analysed via logistic regression.

RESULTS Of 1325 women, 227 (17%) had not started treatment within one year of diagnosis, including 185 (14%) women presenting at TNM stages I-III. Untreated percentages were highest in two regional hospitals in Nigeria (38% of 314 women; 32% amongst stage I-III women) and in the national referral hospital in Uganda (18% of 430 women; 15% amongst stage I-III), i.e. in settings where women paid healthcare expenses out-of-pocket. In contrast, in Namibia, where free treatment is universal, all non-black (100%) and almost all (98.7%) black women had initiated treatment. Percentages of treated BC were lower in women from lower socioeconomic groups (10% absolute difference) and in those who were aged <40 years (7%), believed in traditional medicine (11%) and were HIV+ (16%).

CONCLUSIONS The marked between-country divide in the proportion of untreated patients, coupled with within-population socio-economic differentials in treatment access, highlights the need to ensure free access to BC treatment in SSA as being critical to improving survival from the disease in the region.

Fokom Domgue J

CONNECTING FRONTLINE CERVICAL CANCER PREVENTION PROVIDERS IN CAMEROON WITH DISTANT EXPERTS TO IMPROVE PATIENT CARE THROUGH ECHO: A TELEMENTORING PROGRAM

Fokom Domgue J[1,2,3], Manjuh F[3], Baker E[2], Varon M[2], Ngalla C[3], Milbourne A[2], Nulah K[3], Welty E[3], Welty T[3], Schmeler K[2]

[1]Minister of Public Health, [2]UT MD Anderson Cancer Center, [3]Cameroon Baptist Convention Health Services

MEETING ROOM 4

**Thursday
7 November 2019
13:30–14:30**

BACKGROUND In a context where well-trained specialist physicians are usually inaccessible, trained nurses run the Women's Health Program (WHP) of the Cameroon Baptist Convention Health Services (CBCHS), which has provided affordable cervical cancer screening and treatment of precancers to over 90,000 women since 2007, including cryotherapy, thermal coagulation and LEEP. The WHP providers need to regularly update their skills and knowledge in the most economical way possible. The management of difficult cases is challenging, as many patients referred for specialty care cannot afford those services and their local caregivers must continue to care for them.

OBJECTIVE To establish an evidence based telementoring program aiming at building capacity of providers within the CBCHS.

METHODS In 2003, the University of New Mexico developed ECHO (extension for community health outcomes), a telementoring model that connects community-based providers with distant specialty consultants, to de-monopolise specialised knowledge, to build capacity of frontline clinicians and to improve their skills in handling difficult cases. The University of Texas MD Anderson Cancer Center coordinates Project ECHO for cancer prevention and treatment in multiple countries, including the Cameroon Cervical Cancer ECHO Program.

RESULTS In June 2018, Cameroon Program initiated monthly ECHO teleconferences: i) WHP nurses select and present two difficult cases including cervical photos to experts who provide recommendations for management, and ii) Experts present a short didactic lecture to WHP nurses and providers in other African countries. The sessions are interactive and focus on resources available locally that can improve care.

CONCLUSION Project ECHO is a simple, inexpensive tool that is useful for quality improvement of cervical cancer prevention programs in resource limited countries.

Foxhall L

P215 | UTILISING A GLOBAL CANCER CONTROL NETWORK FOR TOBACCO CONTROL

Foxhall L[1], Tami-Maury I[1], Galendez M[1], Bello R[1], Berger S[1], Francis K[1], Ramos M[1], Hurst A[1], Cofer J[1]
[1]UT MD Anderson Cancer Center

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

INTRODUCTION Globally 12% of all deaths among adults aged 30 years and over were attributed to tobacco. To address this attributable mortality, The University of Texas MD Anderson Cancer Center has engaged its Global Academic Program's (GAP) Sister Institutions by conducting an inaugural tobacco control assessment Survey. This baseline will serve as a mechanism to develop a tobacco prevention and control strategy within a global cancer centre network.

METHODS Qualtrics was used to administer a 27-item survey to our Global Academic Program (GAP) Sister Institutions from April–October 2017. Survey questions focused on key areas of tobacco prevention and control: policy, tobacco use screening, and cessation services. A survey link was emailed to 34 institutions in 23 countries.

RESULTS Of the 34 GAP Sister Institutions, 25 responded to the survey (74% response rate). Key findings among the 25 responding institutions: Policy – 96% are located in cities with laws regulating the sale and/or use of tobacco products by minors and 76% of the cities have laws regulating the use of tobacco in the workplace; 44% of the campuses have designated smoking areas; Tobacco use screening – 64% screen for and document patients' tobacco status, however only 24% screen "all the time"; Cessation Services – 16% offer telephone counselling as a cessation service; 40% offer cessation services to the community; 44% offer cessation services to employees. (A follow up survey is in progress and results will be included.)

CONCLUSIONS A baseline assessment identified areas of institutional needs: cessation services and campus policies. The GAP institutions will convene in May 2018 to share tobacco control best practices across the network and identify resources and supports to strengthen tobacco control efforts at each institution. We will build collaborations aimed at progressive actions in tobacco control policies, educational programs and cessation services culturally appropriate to the needs and resources of the GAP network.

THE NEED FOR SURGICAL ONCOLOGY IN AFRICA AND SUGGESTED MODULES

Francis J

DISCUSSION AROUND THE MODELS OF RUNNING SURGICAL ONCOLOGY THROUGHOUT AFRICA

Francis J[1,2]
[1]Lakeridge Health, [2]Queen's University

NEW HALL

Friday
8 November 2019
07:15–08:20

In the province of Ontario, Canada, surgical oncology is organised at the provincial level by the government agency Cancer Care Ontario (CCO). CCO is a data driven organisation which monitors health outcomes, surgical volumes, population study and demography as well as providing guidelines for patient management through the Program for Evidence Based Care (PEBC). Resource allocations are made at this level, but local decisions across the 14 regions in the province are also made. Nationally, similar programs exist in most provinces with national guidelines guiding management, but few national standards are strictly enforced. Further, there is no comprehensive national process for drug access, although the drug approval process is nationalised. Discussion will revolve around lessons learned and outcomes in the Canadian model, and how these can be translated to the development of surgical oncology throughout Africa.

Freeman E

P172 | DETERMINANTS OF CHEMOTHERAPY ADHERENCE FOR KAPOSI'S SARCOMA IN WESTERN KENYA

Oyesiku L[1], Regan S[1], Busakhala N[2], Asirwa F[2,4], Bassett I[1], Martin J[3], **Freeman E**[1]
[1]Massachusetts General Hospital/Harvard Medical School, [2]Moi University, [3]University of California, [4]Indiana University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Adherence to chemotherapy for moderate-advanced Kaposi's sarcoma is crucial to achieve remission. Our objective was to assess patient and health system factors related to KS chemotherapy adherence in Kenya

METHODS We performed a chart review of all patients diagnosed with HIV-related KS between 2009–2012 at AMPATH for 18 months post-diagnosis. Chemotherapy adherence (completion of 6 cycles) was defined as: optimal =70d (cycles every 2 weeks), satisfactory=105d (cycles every 3 weeks) and minimally acceptable =140d (cycles every 4 weeks). Patients who died prior to chemotherapy completion or were discontinued early by providers were assigned a chemotherapy adherence status based on adherence up to that time. We performed a multivariate analysis of determinants of achieving minimally acceptable adherence.

RESULTS 587 KS patients were diagnosed during the study period, of which 290 received at least one chemotherapy cycle. Of initiated patients, 65% were male; median age was 34 (IQR 29–39). The most common first-line regimen was Bleomycin-Vincristine (78%). Of 290 chemotherapy initiators, 40% met at least minimally acceptably adherence, with very few (7%) reaching optimal adherence. After adjustment for age and gender, only travel time to clinic >2 hours was independently associated with increased odds of non-adherence (OR 3.20, 95% CI 1.39–7.37). Education level, CD4 count at KS diagnosis, and severity of disease (number of chemotherapy indications) were not associated with adherence. There was a trend for younger women to be more adherent than older women or men regardless of age, though not statistically significant.

CONCLUSIONS Adherence to multiple cycles of chemotherapy, while simultaneously undergoing routine HIV care, is challenging, with less than half of patients achieving minimally acceptable adherence. In Western Kenya, distance to clinic (>2 hours) was the most significant determinant of non-adherence to chemotherapy for KS. This finding highlights the importance of making chemotherapy locally available in the community.

Galukande M

MOLECULAR PROFILING OF BREAST CANCER CHALLENGES AND DISPARITIES IN PROFILES

Galukande M[1], Makumbi T[1]
[1]School of Medicine, College of Health Sciences

PLENARY VENUE

**Thursday
7 November 2019
08:30–10:00**

INTRODUCTION Breast cancer is the commonest cancer among women globally. Whereas SSA has generally lower incidence, it has a comparatively poor survival, higher mortality and in relatively premenopausal women. We now know that breast cancer is a heterogeneous disease with several and potentially many molecular subtypes. Subtyping helps to determine more effective therapy. The question is does profile based therapies offer better outcomes and is that sustainable for resource limited countries.

METHODS a review of the current evidence

RESULTS Immunohistochemistry (IHC) techniques have been used since the 1970s. IHC biomarkers for androgen, oestrogen and progesterone receptors have prognostic and survival value. IHC tests for several reasons are not readily available in most SSA resource limited centres. Secondly protocols for tissue handling may not be fully adhered to in situations where the IHC is available compromising the results. This is rectifiable though. Beyond IHC is genomic sequencing, a fast evolving field, mostly out of reach for routine application in many facilities that offer cancer care. Yet a powerful tool in unravelling the complexities of breast cancer tumor biology across the races and time. Unpacking these complexities is the premise for personalised cancer care.

CONCLUSIONS Profile based therapies may offer better treatment outcomes compared to those that don't. This quest to individualised cancer care may not be attainable for SSA in its current form, therein lies the challenge and opportunity for finding more affordable and scalable technologies

Gamito N

P216 | DEPRESSÃO EM MULHERES COM CANCRO DA MAMA: EXPERIÊNCIA NO SERVIÇO DE ONCOLOGIA DO HOSPITAL CENTRAL DE MAPUTO

Gamito N[1], Monteiro K[1], Khan S[1], Tulsidas S[1]
[1]Hospital Central de Maputo

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUÇÃO A Depressão é um transtorno mental, causado por uma complexa interacção entre factores orgânicos, psicológicos, ambientais e espirituais, caracterizado por angústia, diminuição do humor e perda de interesse. O cancro por ser uma doença agressiva e de difícil adaptação quer individual, familiar e comunitária e se beneficia de terapêuticas múltiplas. O conjunto das diversas psicoterapias, isto é, a psicoterapia breve, a psicoeducação, a egoterapia, a psicoterapia cognitivo-comportamental e a psicoterapia sistémica, são capazes de promover benefícios importantes ao paciente, indirectamente aos seus familiares e ao tratamento quimioterápico.

OBJECTIVO este estudo pretende-se avaliar os níveis e as estratégias de coping usadas pelas pacientes, e verificar o que difere relativamente ao estilo de vida.

METODOLOGIA Foi feito estudo descritivo, qualitativo e transversal às doentes pós mastectomizadas.

RESULTADO O transtorno depressivo afecta todas as dimensões da qualidade de vida, mesmo quando controlado com outras variáveis como a idade. Os indivíduos com depressão maior ou subsindrômica apresentam níveis maiores de tensão em actividades domésticas, assim como irritabilidade social, stress financeiro, limitações no funcionamento ocupacional, pior status de saúde e mais dias perdidos de trabalho do que sujeitos sem sintomas.

CONCLUSÃO O grande desafio de hoje é associar todos os sintomas físicos a um específico factor causador do transtorno e isolar os genes vinculados à depressão, alcançando, assim, respostas farmacológicas para um tratamento mais eficiente e com menos efeitos colaterais. Deste modo, conclui-se que a doença crónica causa um grande sofrimento e mudanças de hábitos.

Gatumo M

P217 | WOMEN'S KNOWLEDGE AND ATTITUDES RELATED TO CERVICAL CANCER IN ISIOLO AND THARAKA NITHI COUNTIES, KENYA

Gatumo M[1], Gacheri S[1], Sayed A[2], Scheibe A[2]
[1]Community Health Access Program, [2]Bristol-Myers Squibb Foundation

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Cervical cancer is the most common cancer among women in Kenya. However, only 3% of women are screened every three years. This study aimed to assess women's knowledge and attitudes around cervical cancer in Isiolo and Tharaka Nithi Counties of Kenya.

METHODS We conducted a cross-sectional quantitative survey between January and March 2017. In total, 451 women aged 18 years and over were sampled using multistage cluster sampling. The questionnaire collected demographic information, knowledge of risk factors and attitudes towards cervical cancer. Composite scores were developed for knowledge and attitudes. Bivariate and multivariate analysis of cervical cancer knowledge and demographic characteristics was conducted. Attitudes were assessment through descriptive statistical methods.

RESULTS Two-thirds of the women came from Tharaka Nithi county (n=318). Participants had a median age of 32, 70.6% were married and 35.0% had primary education. Eighty percent of participants had heard of cervical cancer, 25.6% of whom had previously had a cervical screen, and 44.4% had above-average knowledge of risk factors of cervical cancer. Knowledge of cervical cancer was significantly associated with employment (adjusted Odds Ratio (aOR) 1.7; 95% Confidence Interval (CI): 1.1–2.7 and coming from Tharaka Nithi county (aOR = 3.8; 95% CI: 1.7–5.1). Eighty nine percent of women had negative attitudes towards cancer, with no difference between counties.

CONCLUSION Interventions to increase cervical cancer knowledge are needed in these counties. Interventions should also aim to address negative attitudes towards cervical cancer screening. Strategies to effectively educate women around cervical cancer and to increase uptake of cervical cancer screening services among women with little education in poor, hard-to-reach contexts in Kenya need to be developed and evaluated.

Papa Macoumba G
PALLIATIVE RADIOTHERAPY OF CANCER

Papa Macoumba G[1]
[1]Hôpital Dalal Jamm

MEETING ROOM 2

Thursday
7 November 2019
13:30–14:30

Treatment of cancer patient need a multidisciplinary approach. Radiation therapy is a main part of this strategy. Curative radiotherapy is routinely delivered over multiple, small daily fractions. Palliative radiotherapy (PRT) require lower total doses, focusing to symptom control with shorter courses of larger fraction size (hypo-fractionation). PRT is aiming of to reduce symptoms of from the primary tumour or from metastatic deposits. It is suitable for 50 % of cancer patients in Africa. We review the techniques, benefits, and side effects of this palliative treatment. PRT provides pain relief in a median of 2–3 weeks for 60% of patients with bone metastasis. It improved obstructive dysphagia in two thirds of patients. Urgent PRT (within 24 hours) reduces pain and improve neurological function of malignant spinal cord compression. For patients with limited brain metastases and a life expectancy of more than six months, stereotactic radiotherapy can be considered under discussion. For more extensive cerebral disease, whole brain radiotherapy can be offered. More than 70 % of head and neck with pain, dysphagia or odynophagia, airway compromise, bleeding, and tumour bulk, will benefit from PRT. It palliated bleeding in up to 90% of patients with advanced bladder, rectal, or gynaecological cancer and improved other symptoms for half to two thirds of patients. Skin cancers responded to palliative radiotherapy in 60% of cases with control of Bleeding, pain, and malodour due to advanced primary tumor. In conclusion PRT is cost effective and useful treatment for most of advanced cases of cancer.

Gebremariam A

P118 | TIME INTERVALS EXPERIENCED BETWEEN FIRST SYMPTOM RECOGNITION AND PATHOLOGIC DIAGNOSIS OF BREAST CANCER IN ADDIS ABABA, ETHIOPIA

Gebremariam A[1], Addissie A[1], Worku A[1], Assefa M[1], Pace L[2], Kantelhardt E[3], Jemal A[4]
[1]Addis Ababa University, [2]Brigham and Women's Hospital, [3]Institute of Medical Epidemiology, [4]American Cancer Society

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Most women with breast cancer in Ethiopia are diagnosed at an advanced stage. The length of delays attributable to patients and health system, however, are not well documented. Herein, we examined extent of patient and diagnostic delays and associated factors among women with breast cancer in Addis Ababa.

PATIENTS AND METHODS All women newly diagnosed with breast cancer in seven major healthcare facilities in Addis Ababa (n=441) were included in the study. Patient interval (time from recognition of first symptom to medical consultation), and diagnostic interval (time from first consultation to diagnosis) were computed. Patient interval >90 days and diagnostic interval >30 days were considered delays, and associated factors were determined using multivariable logistic regression.

RESULTS Thirty-six percent of the patients had patient intervals of >90 days, and 69% of the patients had diagnostic intervals of >30 days. Diagnostic interval exceeded one year for 18% of patients. Ninety-five percent of the patients detected the first symptom by themselves, with breast lump (78.0%) as the most common first symptom. Only 8.0% were concerned about cancer initially, with most attributing their symptom to other factors. One-fifth of patients had progression of symptoms before seeking medical consultation. Age, family size, using traditional medicine and progression of symptoms before consultation were significantly associated with patient delay. Symptoms recognised while breastfeeding, first consultation at health centres and visiting >4 facilities were associated with higher likelihood of diagnostic delay. However, having clinical breast examination, and progression of symptoms before consultation decreased the likelihood of late confirmation.

CONCLUSIONS Women with breast cancer in Addis Ababa have prolonged patient and diagnostic intervals. These underscore the need for public health programs to increase knowledge about breast cancer symptoms and the importance of early presentation, and the need for health care provider education in early diagnosis.

FURTHER EDUCATION IN AFRICA

Geraghty J
THE VALUE OF MENTORSHIP

Geraghty J[1], Dent J[1]
[1]Bio Ventures for Global Health

MEETING ROOM 1

Friday
8 November 2019
07:15–08:20

This talk addresses the possible value of mentorship initiatives that would aim to complement existing research-oriented training programs for emerging leaders at AORTIC. It will outline mentoring resources potentially available from such groups as international academic and medical centres, healthcare NGOs, biopharma and related industry segments, and health policy institutions, and in such areas as clinical trials, drug development, healthcare capability building, and drug access. It will highlight possible ways to engage with international medical and biopharmaceutical organisations more deeply over time, including internships, exchanges, and collaborations, which could be coordinated through BVGH or otherwise as appropriate. The talk will seek to facilitate a better understanding of mentoring interests not yet fully met by existing programs such as the ACLI, and will conclude by raising the questions of whether or how AORTIC might try to advance these initiatives in a more formalised way over time.

Germans N

EXPLORING EXPERIENCES OF WOMEN LIVING WITH ADVANCED CERVICAL CANCER

Germans N[2]
[1]Makerere University, [2]Institute of Hospice and Palliative Care in Africa

MEETING ROOM 4

Thursday
7 November 2019
10:30–11:30

OBJECTIVE To explore the lived experiences of women with advanced cervical cancer. Most of cervical cancer research has concentrated on screening and knowledge about the disease, with little being known about what it's really like for women living with advanced, incurable disease. This study presents this under-researched area with the intent to unearth and explore women's lived experiences of advanced cervical cancer.

METHODS The study design was qualitative and exploratory using a descriptive approach. The study was conducted at a hospice; Mobile Hospice Mbarara in South Western Uganda. The target population was all patients with a working diagnosis of advanced cervical cancer; stage 2B to 4B. Convenience purposive sampling was employed. Demographic data were collected prior to conducting semi-structured audio taped interviews. Interviews were conducted in native local language and data saturation utilised. Interviews were transcribed verbatim in English, transcripts read and re-read, and emergent themes got from participants' significant statements. Thematic data analysis was used.

RESULTS 10 participants were interviewed, with the average age of 53.4 and age range 41–71. Six themes emerged from the data; demographic profiles, receiving news of diagnosis, living with disease, its symptoms and effects, health care system experience, needs of women, and support structures and coping strategies.

CONCLUSIONS Living with advanced incurable cervical cancer is a challenging and suffering experience for women, with substantial disruptions in all domains of quality of life. Statements like " I've lost weight and it's too much, I've prayed to God to take me away but He hasn't, I started feeling pain since then till now, above all if I can cure …, You think and fail to sleep, … I fail to get money to here for medications … I get pain, they would tell me go there, here, so they delayed me…" all exemplify suffering. Living with symptoms of disease, challenges and delays in getting health care, poverty and disrupted social relationships were commonly mentioned. To improve quality of life of patients, these issues have to be identified and addressed.

Getachew S, Addissie A

LB042 | LATE STAGE DIAGNOSIS AND ASSOCIATED FACTORS AMONG BREAST CANCER PATIENTS IN SOUTH AND SOUTHWESTERN ETHIOPIA: A MULTI-CENTER STUDY

Getachew S[1,2], Tesfaw A[3], **Addissie A**[1], Jemal A[4], Taylor L[5], Kantelhardt E[2]
[1]Addis Ababa University, [2]Martin-Luther-University, [3]Debre Tabor University, [4]American Cancer Society, [5]City of Hope National Medical Center

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Breast cancer is the most frequently diagnosed cancer among women world-wide, and almost half of all breast cancer cases and over half of all deaths occur in low and middle-income countries. Patients from these countries are often diagnosed with late-stage disease (stage III and IV), which is associated with high mortality. Studies have identified factors associated with late-stage breast cancer diagnosis in many African countries, however, little is known about the factors associated with late-stage diagnosis in rural Ethiopia. We sought to determine the occurrence of late-stage disease diagnosis and associated factors in rural south and southwestern Ethiopia.

METHODS We conducted a retrospective study of breast cancer patients diagnosed February–April 2018 from six hospitals in south and southwestern Ethiopia to identify factors associated with late-stage disease diagnosis. Descriptive statistics and binary and multivariable logistic regression identified factors associated with late-stage disease diagnosis. Adjusted odds ratio (AOR) with 95% confidence intervals described predicting factors with statistical significance at p-value <0.05.

RESULTS Overall, 426 breast cancer patients were identified, 72.5% were diagnosed with late-stage disease. Mean patient age was 42.78 ± 13.4 years. Of 426 cases reviewed, 383 (89.9%) patients had breast lump at presentation and 311 (73%) had patient delay of >3 months. Median delay for a patient to seek medical attention was 120 days. Median delay to provide care was 32 days. Median total delay from patient awareness of symptoms to pathology disease confirmation was 184 days. Factors associated with late diagnosis were patient delay to seek care (AOR=2.50; 95% CI: 1.51–4.16); health system delays (AOR=1.62; 95% CI: 1.02–2.59); female sex (AOR=3.46; 95% CI: 1.50–7.98); rural residence (AOR=2.37; 95% CI: 1.45–3.86); chief complaint of breast lump (AOR=3.01; 95% CI: 1.49–6.07); and history of comorbidities (AOR=1.72; 95 % CI: 1.02–2.91).

CONCLUSION Increasing public and health provider awareness to promote early breast cancer diagnosis are needed in rural Ethiopia. There is a general lack of breast self-awareness among patients with late-stage disease, specifically the misperception that breast lumps were not serious problems. Opportunities exist to decrease misdiagnosis and increase screening in regional health care facilities.

PRESENTATION 802

20 BEST OF THE BEST – PART 1

Giattas M

SCREEN AND TREAT: REACHING WOMEN WITH SUSTAINABLE CERVICAL CANCER PREVENTION SERVICES IN TANZANIA

Giattas M[1], Yuma S[2], Kombe M[3], George J[1], Mohamed M[2], Mango V[2]
[1]Jhpiego, [2]Ministry of Health Community Development Gender Elderly and Children, Tanzania, [3]USAID

MEETING ROOM 4

Wednesday
6 November 2019
14:40–16:30

OBJECTIVES Cervical cancer is the leading cause of cancer deaths among women in Tanzania. To increase access to screen and treat services, Jhpiego with Tanzania Ministry of Health (MOH) through USAID funded Cervical Cancer Prevention Program has worked since 2014 to strengthen systems at national and regional levels for delivery of sustainable cervical cancer screening and treatment services. The purpose of this paper is to describe key sustainability lessons at program level from Njombe and Iringa Regions in strengthening cervical cancer screening and treatment services beyond donor support.

METHODS Using WHO health systems building blocks consisting of community mobilisation, policy enabling environment, human resource capacity building; and strengthening service delivery; referral and data management systems, Jhpiego worked with the MOH in Iringa and Njombe Regions to strengthen systems for sustainable cervical cancer screening services. Emphasising Single Visit Approach (SVA), which consists of screening with visual inspection with acetic acid (VIA) followed by immediate treatment of pre cervical cancer lesions the program supported Regional Health Management Team and Regional Referral Hospital capacity building to ensure sustainability beyond donor support.

RESULTS A total of 91 program managers knowledge and 95 health care provider's skills strengthened for delivery of quality cervical cancer prevention services. 13 District Councils budget plans incorporated cervical cancer screening activities for sustainability. 38,389 women were screened using VIA with VIA positivity rate of 7%. 98% of women with pre-cancerous lesions were treated on the same day with cryotherapy. 20% of women screened were HIV infected.

CONCLUSIONS Experience shows that implementing functional Cervical Cancer Prevention Program using stakeholder's engagement and health systems strengthening approach contributes for sustainability of cervical cancer prevention program. Lessons learned point to the importance of: political commitments, partnership, appropriate resource allocation, competence-based training, monitoring and quality assurance in order to achieve long-term sustainability. However, limited funding is a great barrier to sustainability and scaling up.

Ginindza

P119 | PROJECTED CERVICAL CANCER INCIDENCE IN SWAZILAND USING THREE METHODS AND LOCAL SURVEY ESTIMATES

Ginindza T[1]
[1]University of KwaZulu-Natal

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND The scarcity of country data (e.g. a cancer registry) for the burden of cervical cancer (CC) in low-income countries (LCIs) such as Swaziland remains a huge challenge. Such data are critical to inform local decision-making regarding resource allocation [1]. We aimed to estimate likely cervical cancer incidence in Swaziland using three different methodologies (triangulation), to help better inform local policy guidance regarding likely higher "true" burden and increased resource allocation required for treatment, cervical cancer screening and HPV vaccine implementation.

METHODS Three methods were applied to estimate CC incidence, namely: 1) application of age-specific CC incidence rates for Southern African region from GLOBOCAN 2012 extrapolated to the 2014 Swaziland female population; 2) a linear regression based model with transformed age-standardised CC incidence against hr-HPV (with and without HIV as a covariate) prevalence among women with normal cervical cytology; and 3) a mathematical model, using a natural history approach based on parameter estimates from various available literature and local survey estimates. We then triangulated estimates and uncertainty from the three models to estimate the most likely CC incidence rate for Swaziland in 2015.

RESULTS The projected incidence estimates for models 1–3 were 69.4 (95% CI: 66.7–72.1), 62.6 per 100,000 (95%CI: 53.7–71.8) and 44.6 per 100,000 (41.5 to 52.1) respectively. Model 2 with HIV prevalence as covariate estimated a higher CC incidence rate estimate of 101.1 per 100,000 (95%CI: 90.3–112.2). The triangulated ('averaged') age-standardised CC incidence based across the 3 models for 2015 was estimated at 69.4 per 100,000 (95% CI: 63.0–77.1) in Swaziland.

CONCLUSION It is widely accepted that cancer incidence (and in this case CC) is underestimated in settings with poor and lacking registry data. Our findings suggest that the projected burden of CC is higher than that suggested from other sources. Local health policy decisions and decision-makers need to re-assess resource allocation to prevent and treat CC effectively, which is likely to persist given the very high burden of hr-HPV within the country.

Goba-Mjwara T

NEW HALL

P305 | A COHORT STUDY OF TREATMENT OUTCOMES AFTER RADIOTHERAPY IN VULVAR CARCINOMA PATIENTS

Goba-Mjwara T[1], Simonds H
[1]Stellenbosch University

Thursday
7 November 2019
16:30–18:00

OBJECTIVES Carcinoma of the vulva is a rare tumour, representing about 4%of gynaecological malignancies. For locally advanced vulvar cancer, surgery often involves exenteration with colostomy or urinary diversion causing significant physical and psychological morbidity. Neoadjuvant or primary chemoradiation is an acceptable treatment option for these patients to reduce the tumour size and minimise the extent of surgery. The purpose of the study was to determine the socio-demographic features and treatment outcomes in patients with vulvar carcinoma in a single institution.

METHODS A quantitative retrospective cohort study was done of all women diagnosed with vulvar cancer referred for radiotherapy from 1 January 2015–31 December 2017. Demographic and clinical data, treatment time, and radiotherapy fractionation were noted. The primary end point was local control (LC) and overall survival (OS), defined as date of start of RT to date of relapse, secondary primary or death related to cancer (which ever came first).

RESULTS 33 women were eligible for inclusion in the study. There were 22 patients who received curative treatment: definitive CRT/RT (N=17), adjuvant RT (N=5). Of the 22 patients, 11 were in remission, 3 with documented local recurrence and 8 died due to unknown cause. Twelve patients received palliative treatment. The overall survival at twelve months showed that dual modality treatment resulted in a 100% survival outcome for the patients who received primary surgery followed by adjuvant radiotherapy. There was, however, no significant difference between the survival for the definitive CRT/RT (57%) and high dose palliative RT (52%). The dose of radiotherapy was significant; women who received a total dose greater than 60Gy had better local control compared to those who received a total dose of less than 45Gy.

CONCLUSION Dual modality treatment had superior overall survival outcome over definitive chemoradiation or radiotherapy alone in this small cohort.

Gopal S

RITUXIMAB FOR DIFFUSE LARGE B-CELL LYMPHOMA IN MALAWI: PRELIMINARY RESULTS FROM A PHASE 2 CLINICAL TRIAL

Kaimila B[1], Kasonkanji E[1], Zuze T[1], Mulenga M[1], Tomoka T[1], **Gopal S**[1]
[1]UNC Project-Malawi

MEETING ROOM 3

**Friday
8 November 2019
12:45–13:45**

OBJECTIVE Provide prospective data for rituximab for diffuse large B-cell lymphoma (DLBCL) in Malawi.

METHODS We are conducting a phase 2 trial of rituximab + CHOP using the Indian biosimilar (NCT02660710). Eligible patients are 18–60 years with performance status (PS) ≤2, and new DLBCL diagnosis rendered locally using immunohistochemistry and telepathology. Adequate bone marrow, renal, and hepatic function are required, and CD4 ≥100 cells/μL if HIV+. Interim amendment allowed hepatitis B surface antigen-positivity (HBsAg+) if HIV+ on tenofovir-lamivudine antiretroviral therapy (ART).

RESULTS From 8/1/2016 to 4/30/2019, we screened 69 patients, enrolled 35 (51%), and excluded 34 [non-DLBCL (16), CD4 <100 cells/μL (9), PS >2 (3), HBsAg+ (2), died during screening (2), absconded during screening (1), platelets <100x103/μL (1)]. 1 patient was revised to Burkitt lymphoma after US review, leaving 34 DLBCL patients who received RCHOP. Median age was 44 years (range 22–58), 17 (50%) were female, and 26 (76%) were HIV+. 20 (59%) were stage III/IV, median lactate dehydrogenase was 510 IU/L (range 27–2480, laboratory upper limit 250), median PS 1 (range 0–2), and median age-adjusted international prognostic index (aaIPI) 2 (range 0-3). Among 26 HIV+ patients, 21 (81%) were on ART for a median 39 months (range 5–107) with median CD4 209 cells/μL (range 102–1551) and 19 (73%) with suppressed HIV. As of 4/30/2019, 27 patients completed treatment after a median 6 cycles (range 2–6), of whom 18 (67%) achieved complete response, 19 (70%) developed grade 3/4 neutropenia, 4 (15%) grade 3/4 anaemia, 4 (15%) grade 3/4 infection, and 3 other grade 3/4 toxicities (1 thrombocytopenia, 1 hypersensitivity, 1 bowel obstruction). 8 deaths occurred [DLBCL progression (5), RCHOP complication (1), diabetic complications (2)], and 1-year overall survival was 71% (95% confidence interval 47–85%).

CONCLUSIONS In early experience, rituximab appears safe, feasible, and effective for selected DLBCL patients in Malawi.

Hagenimana M

P333 | GOVERNMENT'S ROLE IN POPULATION-BASED CANCER REGISTRIES SUSTAINABILITY IN LOW-MIDDLE INCOME COUNTRIES: CASE OF RWANDA

Hagenimana M[1], Uwinkindi F[1], Businge L[2], Murenzi G[2], Castle P[3], Ndayisaba G[1]
[1]Rwanda Biomedical Center, [2]Rwanda Military Hospital / Einstein-Rwanda Research and Capacity Building Program, [3]The Einstein Research and Capacity Building Program

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Population-based cancer registries provide critical information on cancer burden to inform cancer control programs. However, only 1 in 5 low- and middle-income countries have cancer registries; most of these are owned by research institutions or hospitals, causing sustainability constraints. A population-based cancer registry (PBCR) was established in 1991 in Rwanda and continued up to April 1994 when it was interrupted because of the genocide against the Tutsi. It resumed in 2010 with funding from a research project, and again halted in 2014. In July 2018, the Ministry of Health (MOH) through Rwanda Biomedical Center (RBC) in collaboration with partners including NCI/NIH, the Einstein-Rwanda Research and Capacity Building Program, and ECSA Health Community, re-established a government-owned National Cancer Registry (NCR) to ensure sustainability.

METHODS The Rwanda NCR covers the population of Kigali city with an estimated population of 1.2 million people in 2018. The registry is housed in the RBC with 4 experienced permanent staff and 37 trained focal persons supporting cancer registration activities as part of their work at the 28 health facilities included in the registry. Sources of data include electronic medical record systems, patients' files, pathology reports, register books and death registries. Data were retrospectively abstracted from 5 facilities (KFH, CHUK, CHUB, RMH and Butaro) since 2007 using the Rwanda cancer abstraction form. Data were entered into CanReg5 version 43 software and analysed using IARC check program in CanReg5.

RESULTS Retrospective data collection from 2007–2018 yielded 13,889 preliminary provisional cancer cases. In 2018, 1593 cases were obtained and among them, 63.5% were fin women and 36.5% were in men. The top cancers among women were breast (23.6%), cervix (22.9%), stomach (8.4%), non-Hodgkin lymphoma (NHL) (3.8%), and ovary (3.5%). The top cancers among men were prostate (15.2%), stomach (9.8%), bone (4.7%), liver (4.2%) and NHL (4%). Most of the cancers occurred between ages 50 to 59 years in both sexes (36.9% in males and 40.9% females).

CONCLUSION Government ownership of cancer registration activities is the cornerstone for cancer registry sustainability. The Rwandan NCR is an integral part of Rwanda's health system surveillance under the MOH and is an essential tool to provide a reliable database that meets international standards and meaningfully informs cancer control programs.

Hämmerl L
CANCERS ATTRIBUTABLE TO INFECTIONS IN AFRICA

Hämmerl L[1], Parkin D[2,3], Ferlay J[4], Kantelhardt E[1]
[1]Institute for Medical Epidemiology, Biometry and Informatics, Martin-Luther-University Halle-Wittenberg, [2]University of Oxford, [3]African Cancer Registry, [4]International Agency for Research on Cancer

MEETING ROOM 3

Wednesday
6 November 2019
14:40–16:30

We estimate the fractions of cancer attributed to infections in Africa in 2018. The number of new cancer cases occurring were taken from Globocan2018 with some additional estimations based on data from African population-based registries. Population attributable fractions were calculated using prevalence of infection and relative risk in exposed versus non-exposed. The greatest share of infection-associated cancers is due to the human papilloma viruses (12.1% of all cancers in Africa and 15.4% in sub Saharan Africa); of these, cervical cancer is by far the most common. Kaposi Sarcoma associated Herpes Virus is responsible for 3.1% of all cancers in Africa, the hepatitis viruses (B and C) for 2.9% and Helicobacter pylori for 2.7% (non-Cardia Gastric cancer and primary gastric lymphomas). 2% of cancers are attributable to the Epstein-Barr virus, Schistosoma haematobium increases the risk of bladder cancer resulting in 1.0% of all cancers. HIV-related NHL and squamous cell carcinoma of the conjunctiva account for 0.6% of cancers. All together 24.5% of cancers in Africa and 28.7% in sub Saharan Africa are due to infectious agents. Infections are by far the most common cancer risk factor for cancer in Africa – the traditional risk factors (smoking, alcohol and unhealthy diet) probably cause only one in eight cancers in Africa. Prevention should focus on those infectious diseases preventable through vaccination (HPV and hepatitis B) which could reduce two thirds of the burden. Helicobacter pylori and schistosomiasis are treatable with antibiotics and praziquantel, with a potential reduction of one in eight infection-associated cancers.

Hämmerl L

P121 | THERAPY AND OUTCOME OF COLORECTAL CANCER PATIENTS IN SUB-SAHARAN AFRICA: A MULTICENTRIC POPULATION-BASED STUDY

Hämmerl L[1], Walburga Y[2], Kamaté B[3], Lorenzoni C[4], Parkin D[2,5], Jemal A[6]
[1]Martin-Luther-University Halle-Wittenberg, [2]University of Oxford, [3]CHU du Point G Bamako, [4]Eduardo Mondlane University Maputo, [5]International Agency for Research on Cancer, [6]American Cancer Society

NEW HALL

Tuesday
5 November 2019
18:15–20:00

PURPOSE Colorectal cancer is a major cause of morbidity and mortality globally and its incidence is increasing in developing countries. This study aims to provide baseline colorectal cancer data on stage, treatment, and survival for colorectal cancer patients diagnosed from eleven population-based cancer registries in sub-Saharan Africa.

METHODS We randomly selected 653 patients from logbooks of 11 cancer registries and demographic and clinical characteristics were abstracted from medical records. For evaluation of guideline adherence of therapy, we drafted a stage dependent therapy evaluation scheme based on NCCN Clinical Practice Guidelines. Vital status was ascertained by contacting the patients or their family members by telephone and verifying hospital-level medical records.

RESULTS Median age at diagnosis was 54 years, with 21% of the patients younger than 40 years. Stage IV was the most frequent stage at presentation, representing 26% of the cases. Overall Survival (OS) at one, two and three years was 70.9% (95% CI 65.5–76.3%), 55.2% (95% CI 49–61.4%), and 45.3% (95% CI 38.9–51.7%), respectively. 236 patients (36,1 %) received any form of surgical intervention. Further, only 10% of all patients grouped in TNM stage I, II or III received treatment according to guidelines including minor deviations. For patients grouped in TNM stage I, II, III, we found a strong relationship between risk of early death and the clinical performance of the patients, advanced stage, the human development index of the respective country, and adherence to guideline therapy.

CONCLUSIONS To our knowledge this study is the first to date to investigate cross-sectional and longitudinal data of colorectal cancer patients in a multinational population-based setting in sub-Saharan Africa. Only one in ten patients with early-stage colorectal cancer in sub-Saharan Africa received curative surgery. This underscores the need to improve surgical care in the region through training and enhancing existing infrastructure.

Harries J
CONTRACEPTIVE NEEDS AND FERTILITY INTENTIONS OF WOMEN WITH BREAST CANCER

Harries J[1], Moodley J[1], Constant D[1], Cairncross L[1]
[1]University of Cape Town

PLENARY VENUE

Wednesday
6 November 2019
14:40–16:30

BACKGROUND No known studies have been undertaken in South Africa exploring the contraceptive and fertility needs and preferences of women of reproductive age (18–49) diagnosed with breast cancer.

METHODS Qualitative in-depth interviews were conducted with 24 women diagnosed with breast cancer at a tertiary hospital in Cape Town. We explored responses to a breast cancer diagnosis; the impact of breast cancer on future fertility intentions and contraceptive use; understanding of suitable contraceptive methods during and after treatment and women's fertility related counseling needs during their continuum of care. Data was analysed using a thematic analysis approach.

RESULTS Women initially found it difficult to talk about future fertility intentions as they were dealing with the aftermath of a breast cancer diagnosis. Since being diagnosed with breast cancer, of those women using a contraceptive method, the non-hormonal intrauterine device was the most commonly used method. However, women reported receiving limited information from health care providers about contraceptive use and future fertility planning post treatment when fertility desires might change. Many women reported limited information received from healthcare providers about the impact of cancer treatment on their future fertility. Most women did not receive information around fertility preservation nor were they familiar with the concept.

CONCLUSIONS Limited contraceptive and future fertility counseling were reported by women despite many women being provided with the non-hormonal IUD. There is a need for improved information and counseling regarding the impact of treatment on contraceptive and fertility options. It is important that cancer care providers provide timely information regarding fertility options and communicate with patients about their fertility concerns prior to treatment and throughout the course of survivorship. The development of evidence-based information tools to enhance patient -provider communication and counseling could address knowledge gaps.

Henke A

LB009 | AN APPEAL FOR REPETITIVE CANCER AWARENESS TRAININGS FOR HEALTH CARE WORKERS IN KILIMANJARO, TANZANIA

Massawe A[1], Singer R[1], Serventi F[1], Alloyce J[1], **Henke A[1]**
[1]Cancer Care Centre

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION In Sub-Saharan Africa cancer diseases are increasing, caused by demographic and epidemiologic transitions [1]. Cancer is a threat to health care systems and show the need for innovative integrative approaches in the education of health care provider [2]. In Tanzania, cancer burden is estimated to increase by 85% by the year 2030 [3]. In 3 hospitals treatment is already possible. However, difficult access to the health system and sparse prevention and awareness programs, early detection contribute to late diagnosis and remaining high mortality rates [4], [5]. A low level of cancer awareness in health care workers is facilitating deficient prevention measures, screening and treatment [6]. This study aimed to evaluate the effects of a repetitive-pilot cancer awareness training for dispensary health care providers, ideally represented by nurses and clinical officers, in the Kilimanjaro Region. Main research interest was to assess the repetitive effects of the training in continuing education on cancer knowledge of dispensary health care providers and its application into practice.

METHOD A group of dispensary health care workers (n=16) attended the cancer awareness training. Three training days were provided for this group, spread over the period of three months (one day per month). A questionnaire was developed to assess cancer knowledge in a pre-/post- training panel survey. Application of this knowledge into practice was assessed at follow-up and complemented with qualitative data.

RESULTS Cancer knowledge increased by 24% (95% CI=13–36%, p=0.002). The dispensary health care providers also started to apply the new cancer knowledge into practice and reported to feel more confident in early detection and cancer control.

CONCLUSION The repetitive pilot cancer awareness training was effective in increasing cancer knowledge and its application. The repetitive teaching sessions proved to be successful in result in better learning outcomes as proven in other studies [7]. In addition, the repeating trainings are important for medical networking. Dispensary health care workers are an important link to the health system for many people in rural Tanzania. More repetitive cancer awareness trainings are needed. This concept could also applicable to other countries in SSA.

Henke O

LB021 | EARLY MOLECULAR RESPONSE IN EAST AFRICAN PH+ CML PATIENTS: DO WE NEED AN AFRICAN PROGNOSIS SCORE?

Henke O[1], Mapendo P[1], Serventi F[1], Mwakipunda L[1], Mmbaga L[1], Mkwizu E[1]
[1]Cancer Care Centre

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Philadelphia chromosome positive (Ph+) Chronic Myeloid Leukaemia (CML) is a haematologic malignancy and belongs to the group of myeloproliferative diseases. The annual incidence of CML in Europe ranges between 0.7–1.0/100,000 with a median age at diagnosis of 57–60 years [1]. Data from the US display an incidence rate of 1.6/100,000 and WHO suggests that no association with race or ethnicity seems to exist [2]. However, due to lack of reliable data, incidence rate for LIC remain an estimation [2], but taking the existing data for extrapolation, the worldwide annual incidence would be above 100,000. It is known that African patients are younger at time of diagnosis with an average of 39,5 years [3] and genetic varieties have been found by Koffi et al. [4]. Poor prognosis and adverse treatment outcome were related to additional chromosomal abnormalities and complex aberrations. Furthermore, the prognostic indices were not conclusive with treatment outcome. Studies on early molecular response under Imatinib treatment has not been published in East Africa yet. We present preliminary data from our study in Northern Tanzania.

METHODS All new diagnosed Ph+ CML patients were included and FBC, EUTOS and Sokal Scores and clinical investigations were performed. 3 months after Imatinib treatment, bcr-abl/abl ratio was obtained using real time PCR and clinical remission was documented.

RESULTS 17 patients were evaluated for early MR and haematologic response. The age range were between 4 and 60 years (mean age 38), WBC at diagnosis between 78 and 499/nl (mean 313/nl), all patients had splenomegaly, 8 patients had hepatomegaly, 16 were in chronic phase and 1 in accelerated phase. 15 patients obtained complete hematologic response, favourable early molecular response (fMR) (bcr-ab-/abl <10%) in 7 patients. No correlation was found between EUTOS and Sokal scores or WBC and fMR, but hepatomegaly was positively correlated with non-fMR (p=0.005).

DISCUSSION This is the first study investigating early MR in Ph+ CML patients in East Africa. Despite the small number of patients, a trend towards fewer early MR as described in different ethnic group was found. Furthermore, hepatomegaly seems to be strongly associated with non-fMR. The same finding was reported 2008 from the Ivory Coast [5] and it was suggested to develop an "African CML prognostic score" that includes hepatomegaly. Our results support these findings. More patient data are needed to confirm our findings and further genetic testing of those with non-favourable response are advisable.

Henry M

BARRIERS AND FACILITATORS TO COMMUNICATING CANCER DIAGNOSES TO PATIENTS IN AFRICAN CANCER CARE: STUDY RESULTS

Henry M[1]
[1]McGill University

MEETING ROOM 2

**Tuesday
5 November 2019
09:00–11:00**

Effective communication is essential for the optimal delivery of healthcare services and is a central component of any National Cancer Control Strategy. Communication covers the whole disease trajectory encompassing prevention, diagnosis, treatment, survivorship, end-of-life care, and family bereavement. This symposium intends to enhance overall communication knowledge and skills of physicians, nurses, and allied health professionals working in oncology in Africa. Dr Asuzu will build the argument as to how communication is essential to improving cancer outcomes in Africa. She will present on the importance of distress screening as a communication tool in oncology. Drs Lounsbury and Henry will present the results of a survey of 118 professionals on communication of a cancer diagnosis in African oncology settings. Sokhna Ndiaye will further explore the role of stigma in African cancer communication and treatment outcome. Dr Ntizimira will present clinical cases outlining how a family systems approach and paying attention to family dynamics is essential to enhance communication.

GROWING AND DEVELOPING PSYCHOSOCIAL ONCOLOGY PROGRAMS IN AFRICA: CHALLENGES AND OPPORTUNITIES

Henry M

PSYCHOSOCIAL CLINICAL GUIDELINES AND HOW TO ADAPT THEM TO LMI COUNTRIES

Henry M[1]
[1]McGill University

MEETING ROOM 2

**Wednesday
6 November 2019
08:30–10:00**

The Global Action Plan for the prevention and control of NCDs (2013–2020) aims a 25% reduction in NCD-related premature deaths by 2025. Hand in hand with this plan, IPOS and WHO have been collaboratively promoting psycho-oncology as a standard of universal care in the context of low-middle-income (LMI) countries including on the continent of Africa. This symposium will describe the contribution of psycho-oncology and IPOS collaboration to the attainment of Universal Health Coverage in Africa, the history and evolution of psycho-oncology in Africa and the role of IPOS Federated APOA, and a framework for adapting psychosocial clinical guidelines to LMI countries.

BACKGROUND Clinical practice guidelines have mostly been developed in high income countries and may need modifications to be culturally-relevant to the LMI country context. We used a knowledge translation framework to better understand communication practices and needs around breaking bad news to adult and pediatric populations in African oncology settings, with a focus on identifying barriers and facilitators to breaking bad news.

METHODS A World Café methodology was used to gather qualitative data for this study. The World Café was conducted in English and comprised 114 professionals working in oncology in Africa.

RESULTS Participants underlined the centrality of good doctor-patient communication in optimising outcomes. Barriers and facilitators to communication included: medical setting structure and scarce access to specialists; shortage of staff; workload and time; language, level of education, and socio-economic disparities in understanding; fear of demoralising the patient; belief around what children understand and their degree of involvement in medical care and decision-making; the need for age-appropriate communication; cultural and religious beliefs; stigma surrounding cancer causes; and the central role of family and cultural traditions.

CONCLUSION Our study suggests the need to adapt guidelines to the African context to disseminate communication skills training in a culturally relevant way. Conjunctly, within this context it appears important to embed parallel public health strategies and health care structural changes to mitigate any unintended effects of cancer diagnosis disclosure on patients and families. As IPOS pursues its mission to translate knowledge in the LMI country context, particular attention is required to culture and context.

Romero Y

P007 | LEADING A ROBUST RESPONSE TO CANCER INEQUITIES: 'TREATMENT FOR ALL' NATIONAL CAMPAIGNS IN INDONESIA, MEXICO AND UGANDA

Iaia D[1], Graham K[1], Neumann M[1], Donaldson S[1], **Romero Y**[1]
[1]Union for International Cancer Control

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE In response to the growing equity gap in access to affordable, quality cancer services and building on the cancer resolution adopted at the 2017 World Health Assembly, the Union for International Cancer Control (UICC) launched the global advocacy campaign 'Treatment for All'. Through its national activation workstream, in 2018, UICC worked with member organisations in Indonesia, Mexico and Uganda to equip them with knowledge and skills to raise the profile of cancer and work collaboratively with governments in translating global commitments into national action.

METHODS Through field visits, an advocacy workshop in Geneva, needs assessment and regular remote engagement, Indonesian Cancer Foundation (ICF), Salvati and Uganda Cancer Society (UCS) were supported in positioning their advocacy efforts tailored to national health system needs. Collaboration informs the development of tailored resources and materials, including a toolkit, virtual course, M&E framework and in-person training, to support scale up of the initiative to civil society in 40 countries by 2020.

RESULTS ICF, Salvati and UCS saw the value of working together, with national civil society, with one another and with UICC, to shape their advocacy strategies. Convening platforms helped to generate momentum for improved cancer control policy. National activation enabled strategic direction in advocacy for cancer control, connecting national efforts to a global campaign backed by technical expertise from the cancer community to strengthen impact and sustainability of Treatment for All activities.

CONCLUSIONS In 2018, expressions of interest to join Treatment for All from more than 100 civil society organisations in over 50 countries highlighted the demand for continued capacity building support. Capacity building support for advocacy can help civil society in different countries unite behind a common purpose, finding strategic direction in their advocacy work and leveraging a global campaign to seek improved sustainability and impact of efforts.

Ibraheem A
CONDUCTING ONCOLOGY CLINICAL TRIALS IN AFRICA

Ibraheem A[1]
[1]University of Chicago, [2]Lagos State University Teaching Hospital

PLENARY VENUE

Tuesday
5 November 2019
09:00–11:00

OBJECTIVES
(i)   To discuss the importance of conducting oncology clinical trials in Africa.
(ii)   Discuss the benefits of conducting clinical trials to the health care system and to the patients.
(iii)   Discuss the challenges noted with oncology clinical trials.

OUTLINE
1. African Cancer Tumor Burden.
2. Involving patients on African Ancestry in clinical trials
3. Design of clinical trials to fit African population.
4. Blue print of conducting clinical trials in Africa using Nigeria as a case study.
5. Benefits of conducting clinical trials
6. Logistics to conducting trials in Africa
7. Challenges to trials
8. Future Direction.

Ifele O

P256 | KNOWLEDGE AND USE OF PAIN ASSESSMENT TOOLS AMONG NURSES IN TWO SELECTED FEDERAL TEACHING HOSPITALS IN ABUJA, FEDERAL CAPITAL TERRITORY, NIGERIA

Ifele O[1], Anarado A, Maduakolam I
[1]Nursing and Midwifery Council of Nigeria, Abuja, Nigeria

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Pain is an unpleasant physiological phenomenon that negatively impacts on a person's quality of life. Pain is often unavoidable among cancer patients with advanced disease stages and most die with unrelieved pain. Nurses as major players in pain management, need pain assessment skill as the first step to effective pain management. However, nurses' knowledge and use of pain assessment tools has been understudied in Africa. This study assessed nurses' knowledge and use of pain assessment tools in two selected federal teaching hospitals in Abuja, Nigeria.

METHODS This descriptive cross-sectional study enlisted 319 out of 1051 nurses employed in the two hospitals using multi-stage sampling technique. Data were collected using 34-item researcher-developed questionnaire which had a reliability coefficient of 0.78. Data were analysed using proportions, means for descriptive and t-test and Spearman rho Correlation for inferential statistics at alpha level of 5%.

RESULTS Most (298) respondents had average knowledge (6–10 correct responses) of pain assessment tools. Respondents' use of pain assessment tools was poor (18.4%). The most common tools used were visual analog scale (47.3%) and verbal descriptor scale (22.0%)., Lack of skill in utilisation, inadequate training/expertise, non-availability of the pain assessment tools in the wards and nursing workload, were the barriers to the use of pain assessment tools. There was no significant difference ($p > 0.05$) in the nurses' knowledge and use of pain assessment tools between the two institutions. There was no correlation between the nurses' knowledge and use of pain assessment tools ($p > 0.05$).

CONCLUSION There is need for capacity building of nurses in the knowledge and use of pain assessment tools. Also, institutional policy guidelines and provision of pain assessment tools would enhance their use in clinical practice.

Ifenna J

P334 | BLUECIRCLE TM APP: A TOOL FOR CENTRAL/COLLABORATIVE DATA COLLECTION AND PATIENT EDUCATION IN THE MANAGEMENT OF DIABETES MELLITUS PATIENTS (AS A PILOT FOR OTHER NCDs)

Ifenna J[1], Young E[2], Onyekwe M[2], Onyeka T[2], Christian O[2], Nwatu B[2]
[1]Notitia, [2]University of Nigeria Nsukka

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Data management remains a challenge in many health care systems in Africa. Diabetes mellitus like cancer, is a chronic illness classified among the Non-communicable diseases (NCDs) by the WHO. Major tools in diabetes care include proper diabetes registries and lifelong diabetes education for patients. In recent times, eHealth tools have been championed as an easy and effective way for data gathering, research and improved patient self-care. In addition, applications which can run on mobile devices including tools such as using SMS and USSD functions have gained popularity for patient management among both patients and health care providers.

METHODS The BlueCircle TM app is such a tool recently developed to help with essential data collection in patients with diabetes mellitus managed at various tertiary health facilities in Nigeria. It runs on Android devices and data collected are stored both offline & online. Features of the application include: data security, privacy and control as well as sms notifications (which can serve as health educational tips to enrolled patients). The App works primarily offline and allows a central & collaborative approach to patient enrolment. It is endowed with several offline and online features to mitigate against duplication of entry in the setting of an error on the enrollers part or due to patient migration, hence it's effective use as a hospital based or population-based registry. The platform is highly customisable into any disease registry and is currently being adapted into an oncology eRegistry. It comes with several features that allow for utilisation of data, including several charting features, a user notification feature on appointments/tests etc and a targeted SMS feature (that allows for target group specific engagement).

CONCLUSION The BlueCircle App is a robust app which has been deployed successfully in DM management with easy application and adaptation to other chronic illnesses (e.g. Cancer) and NCDs

Incrocci L

HYPOFRACTIONATION FOR PROSTATE CANCER: THE TREATMENT OF CHOICE FOR AFRICA?

Incrocci L[1]
[1]Erasmus MC

MEETING ROOM 3

**Friday
8 November 2019
10:30–12:00**

Cancer is an emerging public health problem in Africa. According to the World Health Organization (WHO), numbers will double by 2030, due to the aging and the growth of the population. Prostate cancer is the most common cancer among men in most African countries. For a large proportion of prostate cancer patients, external-beam radiotherapy (EBRT) will be the treatment of choice in Africa due to limitations of surgical expertise in many countries. The disparity between the α/β ratio for late complications and the low α/β ratio for prostate cancer widens the therapeutic window when treating prostate cancer with hypofractionation (larger fraction doses in shorter period of time). Hypofractionated schedules for prostate cancer have been used for many years, but only more recently a variety of schedules have been tested in several clinical randomised trials. The most commonly used schedule for any stage localised prostate cancer is 20 fractions of 3 Gy, 5 times/week. Due to the reduced number of treatment days, hypofractionation offers economic and logistic advantages, reducing the burden of the very limited radiotherapy resources in most African countries. It also increases patient convenience. On the other hand, to limit side effects hypofractionation requires geometric accuracy, even more than conventional radiotherapy. A misleading assumption is that high level radiotherapy is not feasible in low-income countries. The gold-standard option for hypofractionation includes daily image-guided radiotherapy with 3–4 implanted gold fiducials. CT-based treatment planning with MRI fusion allows for accurate volume delineation. Volumetric Modulated Arc therapy (VMAT) or inversely planned intensity modulated radiotherapy (IMRT) are the ideal for treatment delivery. The most vital component is safe delivery which necessitates accurate quality assurance measures and onboard imaging.

Ingabire C
THE DEVELOPMENT OF CHILDHOOD CANCER REGISTRIES IN AFRICA

Ingabire C[1], Couitchere L[2], Nsondé Malanda J[3], Ye D[4], Perrier-Bonnet S[1], Parkin M[1]
[1]African Cancer Registry Network, [2]CHU de Teichvielle,Service d'Oncologie Pediatrique, [3]CHU de Brazzaville, Cancerologie Medicale, [4]Université de Ouagadougou, Pédiatrie-néonatologie

MEETING ROOM 3

**Wednesday
6 November 2019
14:40–16:30**

BACKGROUND/OBJECTIVES Information on occurrence and survival of cancer at the population level can only be obtained through cancer registries. Studies of cancers in children in sub-Saharan Africa are even more difficult than those of adults, because of their relative rarity (only 4.6% of cancers occur before age 15), and the fact that registries in sub Saharan Africa cover limited – usually urban – populations. In partnership with the My Child Matters programme (Sanofi Foundation), the African Cancer Registry Network is piloting a project to enhance childhood cancer registration on the continent. **DESIGN/METHODS** In the first year, the registries of two countries (Cote d'Ivoire and Republic of Congo) have expanded their scope to become national registries for paediatric cancer, and a new registry – national paediatric registry of Burkina Faso, has been established. The staff of all 3 registries were trained to record stage at diagnosis for childhood cancers, using the "Tier 1" classification of the Toronto consensus principles (as in TNM-8) for which a special coding manual has been developed. Two long-standing Anglophone registries (Harare and Kampala) were also trained in the staging of cancers, and follow-up of patients registered was carried out in 4 centres, to estimate population-level survival. **RESULTS** The childhood cancer profile differed between the centres. Kaposi sarcoma remains a common childhood tumour in East Africa, Burkitt lymphoma is very common in Uganda and Cote d'Ivoire, and while the most common solid tumour in West Africa was retinoblastoma, Wilms tumours were more common in East Africa. Survival is rather poor – less than half of the cases were alive 3 years after diagnosis. The role of the stage in determining these poor outcomes is being investigated. **CONCLUSIONS** Registration of childhood cancer is feasible in Africa, with proper training and support, and can provide valuable data on incidence, stage, and survival.

Itsura P

RADICAL HYSTERECTOMY FOR OPERABLE EARLY CERVICAL CANCER IN HIV POSITIVE AND HIV NEGATIVE WOMEN IN WESTERN KENYA

Itsura P[1], Omenge E[1], Deraney R[2], Tonui P[1], Rosen B[3], Cu Uvin S[2]
[1]Moi University, [2]Brown University, [3]Beaumont Oakland university

MEETING ROOM 4

Thursday
7 November 2019
10:30–11:30

BACKGROUND HIV-infected women are 8 times more likely to have invasive, rapidly progressing cervical cancer compared to HIV-uninfected. Early stage cervical cancer can be successfully treated by radical hysterectomy. There is a paucity of research on the complications of cervical cancer treatments in HIV-infected women.

OBJECTIVE To compare the outcomes of radical hysterectomy and pelvic lymphadenectomy among HIV infected and uninfected early operable cervical cancer.

METHODS The study included 53 women with operable early stage cervical cancer and who agreed to undergo radical hysterectomy and pelvic lymphadenectomy in Eldoret Kenya. Thirty-three (62%) were HIV-uninfected while 20 (38%) were HIV-infected.

RESULTS There was no statistically significant difference in age, education level, occupation or religion between the two groups. HIV-infected women were more likely to be widows compared to HIV-uninfected women (p=0.007). 55% had clinical stage 1B1/1B2,13% had stage 2A and 2% had stage 2B. Forty-seven (88%) had squamous cell carcinoma, adenocarcinoma 7.5% (n=4), adenosquamous 1.8% (n=1) and clear cell carcinoma 1.8% (n=1). There was no statistically significant difference in clinical variables (clinical stage, cervical length, cervical width, maximum tumour diameter, vaginal involvement, parametrial involvement, histology, and grade) between the HIV -infected and HIV-uninfected women. A majority of the women did not have any perioperative complications (n=47, 89%), had clear surgical margins (n=47, 89%) and were well healed (n=47, 89%) within 2 weeks. There was no statistical difference when complication type and rate were subdivided by HIV status.

CONCLUSION Radical Hysterectomy is well tolerated with no increase in complications in HIV-infected women. It is an appropriate treatment for early stage cervical cancer in HIV-infected women.

Jafta Z

P335 | EASTERN CAPE PROVINCE INTEGRATED CANCER PREVENTION AND CONTROL PLAN

Jafta Z[1], Mandondo S[2]
[1]Nelson Mandela Academic Hospital, [2]Department of Health

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Increasing cancer incidence in South Africa is a reality and public health problem that needs urgent attention. During November 2018, experts in the continuum of cancer care and treatment including research had a seminar to design a provincial specific cancer prevention and control plan. The presence and input of the National Health Ministry and Non-communicable Disease Directorate in this important three-day seminar endorsed the commitment of the South African Government in responding to this urgent need. The following objectives in the cancer control plan that was designed included:

- To reduce the incidence of most common cancers through primary prevention
- To improve early detection of most common cancers through availability and accessibility of free screening
- To pay attention to childhood cancers with regards to improved diagnosis and treatment
- To strengthen cancer surveillance as a pillar to cancer intervention and control programmes
- To promote appropriate research for most common cancers in the province
- To improve access to cancer treatment and follow up services
- To improve survivorship and palliative care; with a focus to community and home-based care

OUTCOME Four commissions were identified with champions to lead and they include;

- Prevention, screening and early detection
- Early diagnosis and treatment of cancer
- Survivorship and palliative care
- Cancer surveillance

CONCLUSION The presenting author will share with the audience some developments and progress made on this cancer control plan after a year of inception.

Jalan D
P072 | TRAINING OF ONCOLOGISTS: RESULTS OF A GLOBAL SURVEY

Jalan D[1], Rubagumya F[2], Hopman W[1], Booth C[1], Berry S[3], Hammad N[1]
[1]Queen's University, [2]Rwanda Military Hospital, [3]University of Toronto

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND While several studies have highlighted the global shortages of oncologists and their workload, few have studied the characteristics of current oncology training.

METHODS An online survey was distributed via national oncology societies and a pre-existing network of contacts to cancer care providing physicians in 57 countries. Countries were classified into low- or lower-middle-income countries (LMICs), upper-middle-income countries (UMICs), and high-income countries (HICs) based on World Bank criteria.

RESULTS 273 physicians who trained in 57 different countries responded to the survey; 33% (90/273), 32% (87/273), and 35% (96/273) in LMICs, UMICs and HICs respectively. 18% of respondents (49/273) trained in an African country. Overall, the countries with the highest number of responses were Canada, Brazil, Turkey, Peru, the United Kingdom, India, Philippines, Sudan, Chile, Nigeria and Saudi Arabia. 60% of respondents were practicing physicians and 40% were in training. The proportion of trainees was higher in LMICs (51%; 45/89) and UMICs (42%; 37/84), than HICs (19%; 28/96; P=0.013). A higher proportion of respondents from LMICs (37%; 27/73) self-fund their core oncology training compared to UMICs (13%; 10/77) and HICs (11%; 10/89; P<0.001). Respondents from HICs were more likely to complete an accepted abstract, poster and publication from their research activities compared to respondents from UMICs and LMICs. With regards to preparedness for practice, mean scores on a 5-point Likert scale were low for professional tasks like supervision and mentoring of trainees, leadership and effective management of an oncology practice, and understanding of healthcare systems irrespective of country grouping.

CONCLUSION Investment in training by the public sector would be vital to decreasing the prevalence of self-funding in LMIC. Gaps in research training and enhancement of competencies in research dissemination in LMIC require attention. Instruction on cancer care systems and leadership need to be incorporated in training curricula in all countries.

Jambo A

P218 | DESAFIOS DE SUPORTE NUTRICIONAL DE PACIENTES COM TUMORES MALIGNOS DE CABEÇA E PESCOÇO ADMITIDOS NO SERVIÇO DE ONCOLOGIA DO HOSPITAL CENTRAL MAPUTO (HCM)

Jambo A[1], Sitoe N[1], Soares O[1], Bandeira J[1], Monteiro K[1], Tulsidas S[1]
[1]Hospital Central de Maputo

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUÇÃO os tumores malignos da cabeça e pescoço são o sexto tipo de cancro mais comum e um dos que apresenta pior taxa de sobrevivência. São diagnosticados anualmente à escala mundial cerca de 550 mil novos casos sendo responsável por cerca de 300 mil mortes por ano (Estevão et al, 2016) (1). Em áfrica e em particular em Moçambique a falta de registo constiui um desafio para a dimensão do Problema(2).

Em 2018 o serviço de Oncologia do HCM registou cerca de 810 novos casos de cancro no periodo de maio de 2018 a Abril de 2019, dos quais pouco mais de 22 pacientes são de tumores de cabeça e pescoço.

Os tumores de cabeça e pescoço acometem regiões imprescindíveis à alimentação e em muitos casos pode levar a desnutrição, com a prevalência entre os pacientes de 30 a 80%, influenciando na resposta ao tratamento, na qualidade de vida, aumentando a morbimortalidade, o tempo de internamento e o custo hospitalar (3).

OBJETIVO GERAL identificar os pacientes com indicação de Tratamento Nutricional Enteral (TNE).

OBJECTIVOS ESPECÍFICOS avaliar o suporte nutricional oferecido; avaliar a toxicidade segundo o esquema de quimioterapia feito; comparar a situação nutricional antes e pós-quimioterapia.

METODOLOGIA trata se dum estudo prospectivo e observacional, de pacientes com tumores malignos de cabeça e pescoço em tratamento com quimioterapia do 2° semestre de 2018 ao 1° semestre de 2019.

ANÁLISE ESTATÍSTICA dados do IMC, percentagem de perda de peso, grau de toxicidade da quimioterapia, percentagem de pacientes com via alimentar alternativa e estado Nutricional.

Jamisse L

P274 | ADEQUACY OF PATHOLOGIC REPORTS OF BREAST CANCER FROM MASTECTOMY SPECIMENS BEFORE AND AFTER INTRODUCTION OF SYNOPTIC REPORTING TEMPLATE AT MAPUTO CENTRAL HOSPITAL

Jamisse L[1], Jone I[1], Come J[1], Carrilho c[1]
[1]Hospital Central de Maputo

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The quality of information in a pathology report is crucial for the management of patients with cancer. In 2017 we introduce a synoptic template for pathology reports adapted from the College of American Pathologists (CAP). We aimed to evaluate the effect of the use of this template (2017–2018) in the quality of the reports of breast cancer in mastectomy specimens in Maputo Central Hospital (MCH) compared with the previous phase (2015–2016) before the introduction of the CAP template.

METHOD All pathologic reports of mastectomy specimen for breast cancer from 2015–2018 were retrospectively accessed from the database of Pathology Department of MCH. We evaluated the availability of information about prognostic factors, such as tumour size, grade, margins status, histologic subtype, linfovascular invasion (LVI) and immunohistochemistry for oestrogen receptor (ER).

RESULTS We analysed 237 mastectomy specimens reports for breast cancer (98 from 2015–2016 and 139 from 2017–2018). Most (97.5%) were female, 51.5% from left breast and 92.0% were Non-Special Type. Information about tumor size, histologic subtype, grade, LVI, margin status and ER were missing in 5.9%, 0.4%, 6.8%, 8.4%, 8.9% and 29.1%, respectively. Prior to the introduction of synoptic template, 11.2% of the reports did not contain histological grade compared with 3.6% in the period after. Missing information of margins status and LVI were in 12.2% and 16.3% in 2015–2016 and reduced to 6.5% and 2.9% in 2017–2018, respectively. Cases without ER information reduced from 55% in 2015–2016 to 10.8% in 2017–2018.

CONCLUSIONS The important reduction of incomplete information after the introduction of synoptic report templates for mastectomy specimens of breast cancer, emphasises the importance of the use of this type of instruments oriented to routine activities in pathology laboratory, for better patient management. Training, capacity building and systematic quality control of the reports is still required.

Jedy-agba E
DOWNSTAGING BREAST CANCER IN SUB-SAHARAN AFRICA

Jedy-agba E[1]
[1]Institute Of Human Virology

PLENARY VENUE

**Wednesday
6 November 2019
14:40–16:30**

Breast cancer is the most common female cancer worldwide and in sub-Saharan Africa (SSA). SSA countries have lower breast cancer incidence rates compared to high income countries (HICs), yet, mortality rates are higher than in HICs owing to a lack of awareness, poor access to care, and long delays to diagnosis and treatment. Stage at diagnosis of breast cancer is one of the most important factors associated with breast cancer survival, yet over 70% of women in SSA persistently present at late stages (III & IV) when treatment outcomes are poor. Poor knowledge, a lack of education and low income are recognised determinants of long delays to presentation and late stage diagnosis in Nigeria. Interventions to promote downstaging (earlier stage at diagnosis) in most settings in SSA where there are no population-based screening programs though crucial, are still lacking. In HICs, such as the United States and the United Kingdom, reductions in mortality from breast cancer prior to the introduction of screening programs suggest that an earlier stage at diagnosis, which can be achieved through clinical downstaging is crucial in obtaining favorable outcomes in the management of breast cancer patients. In settings where breast cancer is diagnosed at early stages and majority of breast cancer patients survive, research emphasis is gradually shifting towards survivorship and managing the long-term effects of a cancer diagnosis. In contrast in SSA, there is still a critical need to improve stage at diagnosis and increase a woman's chances of survival. Until at least half of late-stage breast cancers in SSA are downstaged to early stages, focus should remain on the timely diagnosis of symptomatic breast cancer rather than on screening for asymptomatic disease. Clinical downstaging should be widely advocated as a priority area for future research in breast cancer in SSA.

Jedy-agba E
TRENDS IN CERVIX CANCER INCIDENCE IN SUB-SAHARAN AFRICA

Jedy-agba E[1], Joko Fru Y[2], Liu B[2], Wabinga H[4], Masamba L[5], Manraj S[6], Parkin D[2]
[1]Institute of Human Virology, [2]University of Oxford, [3]Kampala Cancer Registry, [4]University of Malawi College of Medicine and Queen Elizabeth Central Hospital, [5]National Cancer Registry

MEETING ROOM 3

**Wednesday
6 November 2019
14:40–16:30**

BACKGROUND Cervix cancer is the second most common cancer and the leading cause of cancer death in women in sub-Saharan Africa (SSA). Data on trends in cervix cancer incidence are scarce on the continent owing to lack of appropriate long-term data across many regions in SSA.

METHODOLOGY In this study, we investigate trends of cervix cancer incidence spanning periods of 10–25 years in 10 population-based cancer registries across 8 SSA countries (The Gambia, Kenya, Malawi, Mauritius, Seychelles, South Africa, Uganda, and Zimbabwe) through the African Cancer Registry Network. Join point regression was used to analyse and present data for registries in which a simple linear trend did not properly describe the data.

RESULTS A total of 22,066 cases of cervix cancer were registered and included in our analyses. Incidence rates were noted to have increased in all registries, except for Mauritius, where a statistically significant decline of 2.5% per year was noted. The highest average annual percentage increase was reported in Blantyre, Malawi (7.9%) and the least in Harare, Zimbabwe (1.2%). The highest incidence rates of cervical cancer in all the registries were reported in the 60–64 and 65–69 year age groups, compared to other ages. Eastern Cape and Malawi registries showed significant increase in incidence over time, however, this trend was less clear for the Gambia.

CONCLUSION Overall, our findings show that cervix cancer incidence is on the increase in SSA. There is obvious high-level advocacy to reduce the burden of cervix cancer in SSA. However, to achieve results in reducing mortality from cervix cancer in the region, this advocacy needs to be translated into actual support for the development and maintenance of population-based cancer registries, widespread (Human Papilloma Virus) HPV vaccination and population wide cervix cancer screening in SSA.

PRESENTATION 937

THE BENCHMARK FOR CANCER REGISTRIES IN AFRICA

Joko-Fru Y
TREATMENT AND OUTCOME FOR BREAST CANCER IN SUB-SAHARAN AFRICA

Joko-Fru Y[1,2], Haemmerl L[3], Wabinga H[4], Assefa M[5], Jemal A[6], Parkin D[1,2], Kantelhardt E[3]
[1]African Cancer Registry Network, [2]University of Oxford, [3]Martin-Luther-University Halle-Wittenberg, [4]Makerere University, [5]Addis Ababa University, [6]American Cancer Society

MEETING ROOM 3

Wednesday
6 November 2019
14:40–16:30

OBJECTIVE Breast cancer (BC) is the most common cancer in sub-Saharan Africa (SSA). However, little is known about the actual health service received by women with BC and their survival outcome. Our study aimed to describe the cancer-directed therapy (CDT) and diagnostics received by patients with BC at population-level in SSA, compare this to the National Comprehensive Cancer Network (NCCN) Harmonized Guidelines for Sub-Saharan Africa and evaluate the impact on survival.

METHODS Random samples of breast cancer patients ($\geq$40 cases per registry) diagnosed from 2009–15, were drawn from 11 population-based cancer registries: Abidjan-Cote d'Ivoire, Addis Ababa-Ethiopia, Bamako-Mali, Brazzaville-Congo, Bulawayo-Zimbabwe, Cotonou-Benin, Eldoret-Kenya, Kampala-Uganda, Maputo-Mozambique, Namibia and Nairobi-Kenya. Active methods were used to update therapy and outcome data of newly diagnosed patients ("traced cohort").

RESULTS We included a total of 809 patient records. Additional information on therapy or outcome was obtained for 518 patients (63.8%). There was no record of any cancer-directed therapy received for 20.1% (n=104) of traced patients. In the traced cohort, stage was known for 402 patients, amongst which 320 had non-metastatic disease. Of these 320 patients with curable BC, 104 patients (32.5%), met the minimum diagnostic criteria (stage and hormone-receptor status known) for use of the NCCN guidelines; and 85 of these (26.5%) initiated guideline adherent therapy. Less than a third of traced patients had either hormone-receptor status (HRS) testing, endocrine therapy or radiotherapy. There was a 2–3-fold increased hazard of death among patients without NCCN-guided therapy after adjusting for stage and registry area.

CONCLUSIONS Both diagnostic and therapeutic NCCN guideline recommendations for SSA are followed for less than a third of known curable breast cancer patients. Our findings suggest substantial underutilisation of effective, affordable and well-tolerated endocrine therapy. Improving diagnostic service for HRS testing may be the first step to increase NCCN guideline adherence and improve survival.

Victor R
P167 | TUMOR ESTROMAL GASTROINTESTINAL DE ORIGEM ESOFÁGICA

Victor R[1]
[1]Hospital Central de Maputo

NEW HALL

Tuesday
5 November 2019
18:15–20:00

RELATO DO CASO CLÍNICO Paciente I.A.N de 60 anos de idade, M,N, internado no Serviço de Gastroenterologia dia 14 de Março de 2018, com história de disfagia progressiva com evolução de 3 meses, inicialmente a sólidos, posteriormente evoluiu para semi-sólidos e líquidos, sialorreia e perda ponderal, HIV negativo. EDA que revelou tumor do terço inferior (aos 35cm) do esófago. TAC Torácico: presença de tumoração no terço inferior do esófago, com adenopatia periaortíca. (T3, N1, M0, estágio IV). O exame histológico foi compatível compatível com tumor estromal gastrointestinal (GIST), baixo índice mitótico. O paciente foi submetido a cirurgia 3 meses após o dignóstico, com resseção completa do tumor. Evoluiu Com um pós operatório satisfatório, e foi posteriormente enviado a oncologia para quimioterapia adjuvante. Justificativa: Este caso ilustra um tumor estromal gastrointestinal de origem esofágica, muito raro, descrito na literatura com menos de 2% de frequência e que deve estar sempre presente no diagnóstico diferencial de patologias esofágicas estenosantes.

THE NEED FOR SURGICAL ONCOLOGY IN AFRICA AND SUGGESTED MODULES

Ka S
DISCUSSION AROUND THE MODELS OF RUNNING SURGICAL ONCOLOGY THROUGHOUT AFRICA

Ka S[1]
[1]Joliot Curie Cancer Institute

NEW HALL

Friday
8 November 2019
07:15–08:20

Surgical oncology is surgery of oncologist. It enters a mandatory context of multidisciplinarity. It is a diagnostic, therapeutic, reconstructive and preventive surgery for cancers. In Africa, several models of surgical management of cancers exist. In Senegal, cancer surgery depends on the place of practice, the speciality and the availability of surgical oncologists who work in multidisciplinary teams. At Cheikh Anta Diop University in Dakar, there is a training in surgical oncology whose vocation is to give learners skills in the screening, diagnosis, surgical treatment, reconstruction and monitoring of mainly digestive, gynecological, breast, soft tissues and skin cancers. This model makes it possible to group anatomically or functionally related conditions by optimising their resections and their follow-ups in a multidisciplinary environment. This model also makes it possible to offer a frame of reference for the peripherical medical centres for the management of patients coming from specialties for which a training in surgical oncology has not been carried out or an uninstituted multidisciplinary framework.

Ka S

P398 | SEROMA AFTER MASTECTOMY AND AXILLARY DISSECTION: RISK FACTORS AND INTEREST OF THE PADDING FOR ITS PREVENTION

Ka S[1], Dem A[1], Ezzet M[1]
[1]Cheikh Anta Diop University

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

INTRODUCTION The main postoperative complication of mastectomy and axillary dissection is seroma which can last several months.

OBJECTIVES The aim of this study is to analyse risk factors for seroma the role of padding in its prevention.

METHODS Sixty-one patients were included in the study. The patients were followed for 6 months after surgery. All patients underwent mastectomy and axillary dissection according to Madden procedure between January and June 2018. The quantities of seroma drained and punctured were reported. We collected various parameters related to the patient, to the disease and to the treatment, including clinical features, biology and pathological examination.

RESULTS Twenty-five patients (25) had padding and 36 had only axillary drainage without padding. In the padding group, patients produced, at 6 months, a seroma quantity equal to half that of the control group (761.83 ml vs. 1373.60 ml; p=0.02). Quantities of seroma produced during hospital stay were (362.80 ml vs. 630.83 ml; p<0.01). The hospital stay and therefore the duration of drainage was lower for the padding group (3.72 days vs. 5.14 days; p=0.01). However, Pain at 6 months was more important (0.26 vs. 0.10; p=0.04). Obesity is accompanied by a greater quantity of seroma. For the TCK ratio, the more it increases the more seroma is important. An extensive axillary dissection is accompanied by greater production. We also note that a weight between 1001 and 1250 grams of the operating piece have the largest production. A compression bandage reduces the quantity of seroma. On the other hand, longer suction drainage is accompanied by greater production.

CONCLUSION Postoperative seroma production is heterogeneous and varies from one individual to another. This production is largely influenced by several factors related to the patient, to the disease and to the treatment. Padding can significantly reduce this quantity of seroma and hospital stay.

TUMOUR BOARDS IN AFRICA: HOW TO OPTIMISE THE FULL PARTICIPATION OF ALL MEMBERS OF THE MULTIDISCIPLINARY TEAM

Ka S

SURGICAL ONCOLOGY IN TUMOUR BOARDS IN AFRICA: OUR EXPERIENCE IN SENEGAL

Ka S[1]
[1]Joliot Curie Cancer Institute

PLENARY VENUE

Wednesday
6 November 2019
10:30–11:30

Tumor board is essential to optimise the management of cancer patients. It plays an important role in both diagnosis and treatment. Cancer surgery has technical imperatives that achieve the desired results in terms of local control and survival but also in terms of patient comfort. In Senegal the tumor board is not held in all institutions that take care of cancers. At Joliot Curie Cancer Institute in Dakar where we can find surgical oncologists, medical oncologists and radiation therapists, Tumor board has been organised every week for more than 10 years. The institute trains surgical oncologists and it is from surgery that most of the patients presented to the tumor board are recruited. The surgeon occupies a central place. It evaluates the resecability of tumors, the operability of patients and the choice of the opportunity for surgery. This choice is confronted with the benefits and risks, optimal time and delays of the surgical procedure, with neo-adjuvant and adjuvant treatments and also with the curative or palliative objective.

Ka S
UPDATE IN THE SURGICAL MANAGEMENT OF RECTAL CANCER

Ka S[1]
[1]Joliot Curie Cancer Institute

MEETING ROOM 1

Thursday
7 November 2019
14:40–16:30

Surgery is an essential part of rectal cancer treatment. Radiation therapy and medical treatments are not enough for rectal adenocarcinoma, like in squamous cell carcinoma of several organs to do the curative treatment. Depending on the stage it is involved in curative or palliative treatment. In Africa, in centres with a high therapeutic arsenal, patients usually come to locally advanced stages. At Dakar Joliot Curie Cancer Institute, in a series of 50 patients operated for rectal cancer, neoadjuvant chemoradiotherapy was performed in 56% of cases and abdominoperineal amputation in 58% of cases. All patients were operated on by laparotomy. The results are limited by the difficult access to standards and innovative treatments. Total excision of the mesorectum is a carcinological and functional imperative. The preservation of the sphincter by an intersphincteric resection should be more practiced. The approach is opened upwards or more recently trans-anally in low-lying cancers. Low anastomoses are facilitated by mechanical methods. The laparoscopic approach does not modify the oncological results and improves the patient and surgeon's comfort. This comfort increases with robotic-assisted resection whose use is limited by the cost in Africa.

Kabota B

FEASIBLE AND EFFECTIVE TREATMENT OPTIONS FOR CERVICAL SCREEN POSITIVE WOMEN IN AFRICA

Kabota B[1], Campbell C[2], Cubie H[2], Chirwa H[1], Morton D[1], Ter Haar R[1]
[1]Nkhoma CCAP Hospital, [2]University of Edinburgh

PLENARY VENUE

Wednesday
6 November 2019
08:30–10:00

Cervical cancer control requires primary prevention through education and high HPV vaccine coverage of girls, supplemented by national organised screening programmes. Cervical screening programmes are equally important, but to be effective require quality assured provision from well trained providers. Although HPV testing is increasingly the method of choice, screening by cytology or visual inspection with acetic acid (VIA) or lugol's iodine (VILI) can deliver, with VIA the cheapest way to provide high coverage. Screening, no matter how accurate, is unethical if adequate treatment and clinical pathways for those with disease is not readily available or accessible. Cryotherapy is recommended by WHO for ablative treatment of low-grade squamous lesions in resource-constrained settings. However, in many countries access to suitable gas and working delivery guns is limited. Thermal ablation (TA; originally thermal coagulation) is an alternative treatment to cryotherapy which can reach larger cohorts, especially in rural settings. Since 2013, the Nkhoma Cervical Cancer Screening Programme has implemented a 'screen and treat' approach using VIA and thermal ablation in a rural district general hospital and associated health centres. Over 26,000 women have been screened with around 6% being diagnosed as VIA positive and a further 2% having suspicious or frank cancer. At 1 year follow-up of 580 treated women, over 90% were VIA negative (91% of HIV+ and 94.3% of HIV-), in line with international literature. Thermal ablation was shown to be an effective treatment modality, acceptable to clients and patients and is now being expanded to all regions of Malawi. The Malawian Government accepted the benefits of thermal ablation in the absence of WHO guidance. This guidance has now been updated (April 2019) to include thermal ablation as an acceptable alternative to cryotherapy. While focusing on TA, this talk will also describe the feasibility of excision treatment for larger lesions.

Kabota B

USE OF THERMAL ABLATION WITHIN A 'SCREEN AND TREAT' CERVICAL CANCER SCREENING SERVICE IN MALAWI: OUTCOMES AT ONE YEAR, CLIENT EXPERIENCE AND PROFESSIONAL PERSPECTIVES

Kabota B[1], Campbell C[2], Chirwa H[1], Morton D[1], Ter Haar R[1], Cubie H[2]
[1]Nkhoma CCAP Hospital, [2]University of Edinburgh

MEETING ROOM 4

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVES Thermal ablation is an alternative treatment to cryotherapy within 'screen and treat' cervical screening services using visual inspection with acetic acid (VIA) in resource-constrained settings. This ablative treatment is suitable for low-grade squamous epithelial lesions. We evaluated the effectiveness of thermal ablation in the treatment of VIA-positive lesions within a 'screen and treat' programme in Malawi, and its acceptability to clients and providers.

METHODS Over the last several years, the Nkhoma Cervical Cancer Screening Programme has implemented a 'screen and treat' approach using VIA and treatment using thermal ablation in a rural district general hospital and associated health centres. Women with suitable VIA-positive lesions are offered treatment with thermal ablation; treated women return for review at one year. A patient experience questionnaire using validated facial pain scales was developed and translated into Chichewa.

RESULTS Recurrence rate (i.e. VIA positivity) was assessed in a cohort of over 580 treated women who returned for a 1-year review visit: among HIV negative women (n=546) 94.3% were VIA-negative, i.e. a treatment failure rate of approx. 5–6%, comparable with the international literature. Among women living with HIV (n=133), 91% were recurrence-free: in line with international findings and supporting the need for careful follow up. Staff reported professional satisfaction in being able to offer treatment consistently to VIA-positive clients, closer to their communities. Over 120 women have completed pain scales questionnaires following treatment with the traditional WISAP machine, or with one of the two new hand-held models (WISAP, or Liger).

CONCLUSIONS In many low-resource settings, VIA-based screening with robust treatment protocols will remain central to cervical cancer control until the promise of HPV vaccination and HPV testing are fully realised. Thermal ablation is an effective treatment modality, acceptable to clients and patients – however, quality assurance and provider mentoring are required for long-term effectiveness.

Kabuthi E

P239 | CHILD LIFE PRACTICE IN THE CARE OF CHILDREN WITH CANCER: THE EXPERIENCE IN A LOW-INCOME SETTING

NEW HALL

Kabuthi E[1], Kirui E[1], Olbara G[1]
[1]Moi Teaching and Referral Hospital

Thursday
7 November 2019
16:30–18:00

Child Life (CL) services are considered an indicator of excellence in paediatric care in most high-income countries. Among children with cancer, the uncertainty and fear of the unknown is deeply frightening to both the child and their family. Moi Teaching and Referral Hospital's Child Life program (MTRH-CLP) in Kenya strives to make hospitalisation less stressful for children and their families.

OBJECTIVES To describe the development of child life services in the care of children with cancer in Moi Teaching and Referral Hospital.

METHODS This is a retrospective review of the establishment of CL services at a Kenyan tertiary public hospital. MTRH-CLP began as a play program in 2000 with the first playroom opened in 2005. MTRH-CLP has developed to become a model CL program in Kenya where work with children and families focuses on building therapeutic relationships utilising a play-based approach that broadens patient's understanding of childhood cancer. A skilled CL team assesses, then plans interventions that meet unique needs of children and family members by considering diagnosis, growth and development and coping skills within a family system. Parents are proactively engaged in the direct care of the child during cancer treatment hence the need for family centred care approach.

RESULTS Following planned interventions there is increased and better coping by children during distressing and recurrent medical procedures like intravenous cannulation and intrathecal chemotherapy, improved overall health experience, improved quality of life for children with cancer and their families.

CONCLUSION The medical and CL teams should support family-centred care and the implementation of CL supports as more children receive a cancer diagnoses. Integration of CL services in the multidisciplinary paediatric oncology care teams in low income countries is feasible.

Kahesa C

P174 | DETERMINANTS OF CERVICAL HIGH-GRADE LESION ON CYTOLOGY OR A POSITIVE VISUAL INSPECTION WITH ACETIC ACID AMONG TANZANIAN WOMEN

Kahesa C, Dartell M[2], Mwaiselage J[1], Rasch V[3], Iftner T[4], Kjaer S[2]

[1]Ocean Road Cancer Institute, [2]Danish Cancer Society Research Center, [3]University of Southern Denmark, [4]University Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cervical cancer screening by visual inspection with acetic acid (VIA) is a widely used alternative to cytology in developing countries. This study aimed to evaluate sociodemographic and Clinical factors associated with VIA positivity and with cervical high-grade lesions on cytology among women HIV positive and Negative women attending Cervical Cancer Screening in Tanzania

METHODS We conducted a large cross-sectional study among 3339 women from urban and rural Tanzania. Study participants were interviewed about socio-demographic, reproductive and lifestyle factors. Blood samples were tested for HIV, and a gynaecological examination was performed as well as VIA test as recommended screening test in Tanzania. Human papillomavirus (HPV) status was determined by Hybrid Capture 2, and HPV genotyping was done using the LiPA Extra test. We used multivariable logistic regression to estimate adjusted odds ratios (ORs) and confidence intervals (CIs).

RESULTS The strongest risk factors for VIA positivity were positivity to HIV (OR = 3.48; 95% CI: 2.34–5.17) or to high-risk HPV (HrHPV) (OR = 1.97; 95% CI: 1.37–2.85). HrHPV was by far the strongest predictor of high-grade cytology (OR = 110.1; 95% CI: 50.4–240.4), while there was no significant association with HIV in the multivariable analysis (OR = 1.27; 95% CI: 0.78–2.08). After adjustment for HrHPV, HIV and age, the risk of high-grade cytology also increased with increasing age, number of births and low body mass index (BMI), while high BMI decreased the risk of VIA positivity.

CONCLUSIONS Infection with HrHPV is a major risk factor for high-grade cytology, while VIA positivity is associated with HIV and to a lesser extent with HrHPV.

Kaimila B

P367 | SURVIVAL FOLLOWING DIAGNOSIS OF OESOPHAGEAL CANCER IN LILONGWE, MALAWI

Kaimila B[1], Mulima G[2], Tomoka T[1], Kajombo c[2], Salima A[1], Chiyoyola S[1], Murphy G[3], Abnet C[3], Gopal S[1,4,5]

[1]UNC Project, [2]Kamuzu Central Hospital, [3]National Cancer Institute, [4]Lineberger Comprehensive Cancer Centre, [5]University of Malawi

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Oesophageal cancer (OC) is the third commonest cancer in Malawi. Despite significant morbidity and mortality, little is known about disease outcomes. We assess post-diagnosis survival of OC in Malawi.

METHODS We report on OC cases enrolled in a matched case control study at Kamuzu Central Hospital in Lilongwe from 1 August 2017 to data censoring on 31 July 2018. Suspected cases completed a questionnaire interview, provided blood, urine and saliva specimens, and underwent a tumour biopsy for histologic confirmation. Cases were followed up by phone every three months. We evaluated overall survival for cases only. Time from diagnosis to death was assessed using Kaplan Meier methods. Differences in mortality between patients on palliation alone, those who received a stent and those receiving chemotherapy were assessed using the log-rank test.

RESULTS There were 43 confirmed OC cases enrolled during the study period, of which 36 (84 %) had known vital status at censoring date and 7 (16%) were lost to follow-up. Of the 36 with known vital status at censoring, median age at enrolment was 57 years (range: 29–86) and 19 (53 %) were male. Median follow-up time was 117 days (range: 5–399). Twenty-seven (75%) died and median overall survival was 138 days (95% CI 81–165). Ten patients received palliative chemotherapy and six received a stent. No patients received both chemotherapy and stent. There was a significant difference in survival between those who received palliation only (median 63 days) and those who received chemotherapy or a stent (median 202 days, p=0.003).

CONCLUSION Survival following diagnosis of OC was poor. Chemotherapy or stent placement were associated with improved survival compared with palliation alone. Greater emphasis should be placed on early detection of OC, as well as prevention once key modifiable risk factors in Malawi are identified through ongoing studies in Malawi.

Kajombo C

P074 | CORRELATION OF SURGEON-DETERMINED BI-RADS ASSESSMENT AND BREAST PATHOLOGICAL RESULTS IN MALAWI

Kajombo C[1], Kincaid J[2], Tomoka T[3], Maine R[3], Jordan S[3], Charles A[3]
[1]Kamuzu Central Hospital, [2]Thomas Jefferson University, [3]University of North Carolina

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION In Africa, breast cancer accounts for 25% of cancer diagnoses and 20% of cancer deaths in women. Breast cancer screening is neither available nor recommended in Malawi. Ultrasound is both cost-effective and a well-established tool to evaluate breast masses. With only two radiologists in Malawi, the surgeons at a tertiary hospital in Malawi implemented symptomatic breast disease clinic using point-of-care ultrasound to aid diagnosis. This study assesses the correlation between surgeon-determined Breast Imaging Reporting And Data Systems (BI-RADS) assessment and biopsy histology.

METHODS We retrospectively analyzed preliminary breast clinic registry data to describe patient characteristics, and to compare the point-of-care ultrasound BI-RADS score to histology results. Patients with BI-RADS <4 (3 probably benign; 2 benign; 1 negative) were compared to those with a BI-RADS>4 (4 suspicious; 5 highly suggestive of malignancy; 6 biopsy-proven malignancy).

RESULTS Of the 174 BI-RADS-assessed patients, 80 patients had both BI-RADS and histology results. Because of limited resources, low risk, benign-appearing patients are not universally biopsied. Patients with BI-RADS<4 were significantly younger. HIV status, age at menarche, and rates of regular breast self-exam in the two populations were not significantly different (Table 1). For patients assessed as BI-RADS<4, 92.9% were confirmed to have benign disease. Among patients assessed BI-RADS>4, 84.8% were demonstrated to have malignant pathology, p<0.001. The positive predictive value is 85%.

CONCLUSION Surgeon-performed ultrasound is a useful tool with promising accuracy for the assessment of symptomatic breast disease in patients with positive clinical breast exam in a low-resource setting.

Kamiza A

CUMULATIVE RISKS OF COLORECTAL CANCER IN PATIENTS WITH LYNCH SYNDROME

Kamiza A[1,2], Wang W[2], Hsiung C[4], Yeh C[1,3]
[1]University of Witwatersrand, [2]Taipei Medical University, [3]China Medical University, [4]Institute of Population Health Sciences

MEETING ROOM 4

Friday
8 November 2019
08:30–10:00

BACKGROUND Patients with Lynch syndrome have a high risk of colorectal cancer (CRC). In this study, we estimated the penetrance of CRC in patients with Lynch syndrome.

METHODS Of the 1009 patients with hereditary non-polyposis colorectal cancer, 300 patients were carriers of germline mutations in MLH1 or MSH2, whereas 709 patients were non-mutation carriers of these mutations. Penetrance of CRC was calculated using a modified segregation analysis implemented by Mendel.

RESULTS The median age at CRC diagnosis were younger in patients with Lynch syndrome than in non-mutation carriers (44.3 vs. 50.4 years, $P = 0.0001$). The cumulative risk (penetrance) of CRC at the age of 70 years were 36.5% (95% CI = 27.7%–46.9%), 34.8% (95% CI = 26.1%–45.5%), and 42.7% (95% CI = 30.1%–57.8%) in the male carriers of MLH1 or MSH2, MLH1, and MSH2 germline mutations, respectively. The penetrance of CRC in the female carriers of MLH1 or MSH2, MLH1, and MSH2 germline mutations were 25.8% (95% CI = 18.6%–35.2%), 24.5% (95% CI = 17.4%–33.6%) and 32.2% (95% CI = 26.3%–39.1%), respectively.

CONCLUSION Cumulative risk of developing CRC in patients with Lynch syndrome is 34.8%–42.7% in men and 24.5%–32.2% in women.

Kamiza B

LB012 | ASSOCIATION OF THE TP53 ARG72PRO VARIANT WITH CERVICAL CANCER IN SUB-SAHARAN AFRICA POPULATION: A META-ANALYSIS

Kamiza B[1], Kamiza S[2], Singini M[1], Mathew C[4]
[1]University of the Witwatersrand, [2]University of Malawi, [4]King's College London

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND TP53 plays a crucial role in preventing cancer development. Previous studies in sub-Saharan Africa (SSA) reported inconclusive findings for the association of the TP53 Arg72Pro variant with cervical cancer. We, therefore, performed a meta-analysis to precisely define the effect of TP53 Arg72Pro on cervical cancer risk in the SSA population.

METHODS A comprehensive literature search was performed in PubMed, Hinari, the Web of Science, and Google Scholar to identify suitable articles published from the year 2000 to 2018. Studies evaluating the association between TP53 Arg72Pro and cervical cancer in the SSA population were included. A fixed-effect model was used to calculate the pooled odds ratio (OR) and 95% confidence intervals (95% CIs).

RESULTS The Arg allele of TP53 Arg72Pro was associated with an increased risk of cervical cancer (OR = 1.30, 95% CI = 1.12–1.50) compared to the Pro allele. The homozygous Arg/Arg genotype was also associated with an increased risk of cervical cancer, with corresponding ORs of 1.62 (95% CI = 1.20–2.19) and 1.74 (95% CI = 1.34–2.25) in the additive and recessive genetic models respectively. However, the Arg/Arg genotype was not associated with cervical cancer (OR = 1.20, 95% CI = 0.96–1.48) in the dominant genetic model.

CONCLUSION Our meta-analysis revealed that the Arg allele of TP53 Arg72Pro is associated with cervical cancer risk in the SSA population. More studies with larger sample sizes are needed to provide a more comprehensive conclusion.

Kampani C, Tomoka T

P219 | PAEDIATRIC MALIGNANT TUMOURS: EXPERIENCES FROM KAMUZU CENTRAL HOSPITAL PATHOLOGY LABORATORY

Kampani C[1], Salima A[1], Kumwenda W[1], Kudowa E[1], Mulenga M[1], **Tomoka T**[1], Gopal S[1]
[1]UNC Project

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Tumours in children, benign or malignant, can be attributed to a variety of causes ranging from genetic to environmental. Histopathological diagnosis, classification and staging with or without ancillary investigation is an important tool for patient care as well as surveillance. The Kamuzu Central Hospital (KCH) pathology laboratory was established in 2011 and serves almost half of the 18million population of Malawi. We describe the spectrum of paediatric tumours at KCH pathology laboratory.

METHODS This is a retrospective case series of tumours in children diagnosed at KCH pathology laboratory between 2011 and 2018 within the age range 1–12years. Our data includes excisional, incisional biopsies and FNA. Demographic, clinical and pathologic data were extracted from the laboratory database. Histopathologic tumour diagnosis where applicable was aided by a limited panel of immunohistochemical antibodies available in the KCH laboratory which at minimum is able to categorise solid tumours into carcinoma, neuro derived tumours and lymphoma.

RESULTS 3768 paediatric specimens were received between 2011 and 2018 of which 2450 (65%) were histology and 35% were cytology. 2928 cases (78%) were benign, 811(21%) malignant, 29 (1%) nondiagnostic. The most common malignant neoplasm was Burkitts Lymphoma, 210 representing 26% of the malignant diagnoses. The other tumours in order of frequency were NHL, retinoblastoma, Hodgkin lymphoma, Wilms tumour, Kaposi sarcoma, Acute leukaemia, sarcoma NOS, rhabdomyosarcoma, small round blue cell tumours and neuroblastoma. 40 (5%) tumours could not be classified and all other tumours comprised 12.5%.

CONCLUSION The most common paediatric tumours in our laboratory are haematolymphoid of which Burkitts is the commonest. There is need to expand our IHC panel to aid in the diagnosis of sarcomas and small blue cell tumours.

Kantelhardt E

P038 | IMMUNOMONITORING OF ETHIOPIAN TRIPLE NEGATIVE BREAST CANCER PATIENTS PRIOR AND AFTER SURGERY

Yohannes M[1,2], Massa C[1], Mueller A[1], Desalegn Z[1,2], Abebe T[2], Vetter M[1], Wickenhauser C[1], **Kantelhardt E**[1], Seliger B[1]
[1]Martin-Luther-University Halle-Wittenberg, [2]Addis Ababa University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Breast cancer is the most common cancer of women worldwide. However, huge differences in the outcome of patients have been described in particular when comparing patients from industrial countries to that from sub-Saharan Africa, which have very limited treatment options. Current treatment of breast cancer are mainly surgery, chemotherapy, radiotherapy and hormonal therapy. Recently, breast cancer are also treated with T cell based immunotherapies. Since these therapies are very expensive, one has to select patients, which most probably do respond. In order to achieve this goal, analysis of the patients' immune cell repertoire and activity was developed in a research program between the "Addis Ababa University, Ethiopia and the Martin-Luther-University Halle-Wittenberg, Germany. Therefore, a tumour bank is currently established consisting of tumour biopsies, blood from patients at different stages of disease and clinical parameters. While the biopsies will be analysed by immunohistochemistry, peripheral blood mononuclear cells will be characterised by flow cytometry. Currently, 40 samples from breast cancer patients upon their consent have been collected.

METHODS The immune cell subpopulations in blood samples prior to surgery from 6 patients with different breast cancer subtypes and from 6 healthy controls were determined using multicolour flow cytometry with a panel of > 35 distinct antibodies. This allows to distinguish between different immune cell subpopulations as well as different immune cell activities.

RESULTS Evaluation of the composition of immune cells in healthy donors and breast cancer patients demonstrated differences in the frequency of CD45RA/CD38 and PD1/LIR1 populations, which were lower in all patients' samples when compared to controls. In contrast, the frequency of CD57+ cells was higher in patients than in healthy donors. For all other marker combinations/cell subpopulation frequencies no consistency was found to distinguish patients from control, which might be due to the low number of samples analysed. Currently, more samples were analysed in order to receive statistically significant data. In addition, these data will be correlated to the clinical outcome of these patients.

CONCLUSION Using this approach we hope to identify biomarkers, which will allow to distinguish between breast cancer patients and healthy volunteers. Further data will be presented at the meeting.

Kantelhardt E

P157 | CERVICAL CANCER IN SUB-SAHARAN AFRICA: A MULTINATIONAL POPULATION-BASED STUDY ON PATTERNS AND GUIDELINE ADHERENCE OF CARE

Griesel M[1], Korir A[2], Vuma S[4], Buziba N[3], **Kantelhardt E**[1], Jemal A[5]

[1]Martin Luther University of Halle, [2]Kenya Medical Research Institute, [3]Moi University and Eldoret Cancer Registry, [4]Mpilo Central Hospital and Bulawayo Cancer Registry, [5]American Cancer Society

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cervical cancer (CC) is the most common female cancer in many countries of sub-Saharan Africa (SSA). We aimed to assess population-based adherence to treatment guidelines.

METHODS Our observational registry study included nine population-based cancer registries in eight countries, including Benin, Ethiopia, Ivory Coast, Kenya, Mali, Mozambique, Uganda, and Zimbabwe. We drew random samples of 44–125 patients per registry diagnosed in 2010–2016. Cancer-directed therapy was abstracted from hospital records and evaluated for degree of adherence to NCCN guideline 1.2010.

PRELIMINARY RESULTS Of the 600 patients included in the study (median age: 50 years), one sixth were diagnosed with FIGO stage IV disease and one sixth received cancer-directed therapy (CDT) with curative potential, with 5% guideline-adherent, 2% minor and 9% major deviations. No CDT could be found in 22% of patients with follow-up of ≥ 3 months. Guideline adherence was not assessed in 45% of the patients because no information beyond registry data could be traced (32%) or because of lack of information on stage or short follow-up (13%). The largest proportion of patients with guideline-adherent CDT was observed in Nairobi (Kenya), the smallest in Maputo (Mozambique). Among selected patients with sufficient information abstracted, deviations from optimal guideline-adherent therapy showed relevant decline in survival probability.

CONCLUSIONS We found that only one in six cervical cancer patients in SSA received CDT with curative potential. One-fifth of women definitely, and possibly up to two-third of women never accessed CDT, despite presenting with curable disease. Investments into more radiotherapy facilities, procurement of chemotherapies, and surgical training could radically change the inevitably fatal future of these women.

Kanyugo M
P009 | THE ROLE OF MEDIA IN CANCER PREVENTION AND CARE IN KENYA

Kanyugo M[1], Rop M[1], Chesumbai G[1], Asirwa C[1]
[1]Academic Model Providing Access to Healthcare

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Cancer is the 3rd leading cause of morbidity and mortality with 7% of deaths per year after infectious and cardiovascular diseases in Kenya. In 2018, there was an estimated 40,000 new cancer cases and 28,500 cancer deaths. This study sought to evaluate the available health programs in Kenyan media and the frequency of running cancer topics on these health programs.

METHOD Structured interview questionnaires were used to collect data. The collected data included; availability of health programs produced, cancer topics in the health programs, frequency of cancer topics, when the topics were aired, length of time on air and print space, persons invited to disseminate the information and feedback mechanism employed for audience interaction.

RESULTS The study showed that 36% of all cancer topics selected and depicted were the three major prevalent cancers in Kenya Breast, Cervical, and prostate aired during cancer months/days. The study also found that 57% of cancer topics discussed were randomly chosen for discussion. A total of 85% health programs aired had cancer topics however this was during off peak hours (10am-5pm) for most radio and TV stations, only one TV program aired on prime time at 6pm to 10pm. The least amount of time was allocated to the Cancer prevention subject as only 5% and 28% time is allocated on exercise and nutrition respectively.

CONCLUSION Most non-communicable diseases can be diagnosed at their early onset and thereby save lives. However, for lack of knowledge many suffer through misdiagnosis in silence and in the long run reach help late. Mass media can shape the public's opinion on cancer and offer knowledge through cancer experts and survivors if the myths surrounding cancer are to be demystified and lives saved.

Kapie K

P175 | TANZANIAN CERVICAL CANCER SCREENING REVEALS THE IMPACT OF HIV AND MULTI-GENOTYPE HPV INFECTION ON CYTOPATHOLOGY

Kapie K[1], Kahesa C[1], Angeletti P[2]
[1]Ocean Road Cancer Institute, [2]University of Nebraska Lincoln

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

Tanzania is a low to middle income sub-Saharan African country which endures significant adverse impact from HIV-1 and HPV-associated malignancies. To investigate the influence of HIV upon HPV-dependent cervical dysplasia in women from urban and rural areas of Tanzania, we designed a multi-site cross-sectional cervical screening study. We chose rural catchment clinics in Bagamoyo and Chalinze, and an urban site, Dar es Salaam.

METHODS We implemented a low-cost multiplex PCR assay to detect 14 high-risk and 2 low-risk HPVs. The assay performance was evaluated by determination of intra-laboratory reproducibility, sensitivity, and specificity, by comparison with the widely accepted and validated HPV. My09/My11 amplification and hybridisation assay. Pap smears were performed and cervical cytobrush samples were collected for HPV genotyping. Pap smears were read in quadruplicate by readers blinded to HIV status and patient demographic data. Blood samples were collected for HIV status confirmation and CD4+ T-cell counts. All HPV genotype, cytopathology, and HIV status data were compared to patient demographic factors. We report our analyses of 1046 patients out of our target of 1400.

RESULTS The overall concordance between the multiplex and line blot hybridisation assays was 99% (per sample) with a κ value equal to 0.95; and 96.49% (per detection event) with a κ value of 0.92. Interobserver reproducibility of the assay per sample was 95.76% with κ of 0.91. We found variation in HIV positive rates across the cohort; ORCI: 12.5%, Bagamoyo: 16% and Chalinze: 25%. HPV16 was the most common HPV genotype, at about 16% in Bagamoyo and Chalinze. The HIV positive group showed a significant expansion of HPV genotype diversity and cytopathology compared to the HIV negative group. We found that multiple HPV genotype infections were associated with a higher probability of abnormal cytopathology, when compared to HPV negative (OR= 2.7). Participants from Dar es Salaam showed the highest prevalence of any HPV infection and the greatest cytopathology. The rural sites exhibited a greater proportion of HPV naïve and normal cytopathology than the urban site, but also higher rates of multiple HPV infections. Higher rates of multiple HPV infections are influenced by HIV. Coinfection with four or five different HPV genotypes significantly increases the rate of HSIL among HIV positive cases.

CONCLUSIONS HIV is associated with greater HPV genotype diversity, greater numbers of HPV coinfections and higher grades of cytopathology.

Katsidzira L

COLORECTAL CANCER IN AFRICA: EVIDENCE TO GUIDE SCREENING APPROACHES

Katsidzira L[1], Gangaidzo I[1], Vorster A[2], Matenga J[1], Makunike-Mutasa R[1], Thomson S[2], Rusakaniko S[1], Ramesar R[2]
[1]University of Zimbabwe, [2]University of Cape Town

MEETING ROOM 1

Wednesday
6 November 2019
08:30–10:00

Until recently, the interplay between hereditary and environmental factors in the causation of colorectal cancer in sub-Saharan Africa has been poorly understood. We have carried out a series of collaborative studies between the Department of Medicine, University of Zimbabwe, and the MRC/UCT Research Unit for Genomic and Precision Medicine, Division of Human Genetics, University of Cape Town, whose findings have a major impact on screening strategies for colorectal cancer among Africans. In brief, we found that the incidence of colorectal cancer among Africans is rising, and young individuals are over-represented. The major risk factors are familial, diabetes mellitus, prior schistosomiasis, and a shift away from traditional dietary patterns. The prevalence of Lynch syndrome among Africans is approximately 3.3%, and identification of the pathogenic mutations is feasible with collaborative approaches. (We identified two; MLH1 c.(1896+1_1897-1)_(*193_?)del and MSH2 c.2634G>A). We councluded that the primary prevention of colorectal cancer should focus on maintenance of traditional dietary practices. Screening should be considered in individuals with diabetes mellitus above the age of 50 years, and in those with colorectal cancer in first degree relatives, possibly using faecal immunochemical tests. Identifying cases of Lynch syndrome is feasible and can guide screening among families. In particular, resources for immunohistochemistry for mismatch repair proteins should be availed, and from our findings, this can be targeted at all individuals with colorectal cancer under the age of 50 years. Finally, BRAF V600E testing has a limited role in clinical practice in Africa.

Kayamba V
BIOMASS SMOKE AND CANCER IN AFRICA

Kayamba V[1]
[1]University of Zambia

MEETING ROOM 1

Wednesday
6 November 2019
07:15–08:20

Combustion of organic matter such as firewood, charcoal, grass or dung produces biomass smoke. Biomass smoke contains variable organic and inorganic constituents some of which are known to be carcinogenic. The World Health Organisation recognised indoor household pollution as one of the top ten risks for worldwide burden of disease. Over 70% of the African population relies on biomass fuels with proportions as high as 97% in some rural settings. By contrast, the use of biomass fuel in developed countries is less than 5%. Health consequences of long-term or in many cases lifetime exposure to biomass smoke are poorly investigated. Biomass smoke exposure has been linked to several cancers sites including the mouth, nose, throat, lungs and distant locations such as the cervix. Recently, there has been growing evidence of an association between upper gastrointestinal cancers (oesophagus and stomach) and biomass smoke. Cigarette smoking has long been established as a risk factor for many of these cancers. Some of the known carcinogenic constituents of cigarette smoke such as polycyclic aromatic hydrocarbons are also present in biomass smoke. Therefore, biomass smoke could influence carcinogenesis in ways similar to cigarette smoke. Other probable mechanisms include the induction of genetic mutations and increased states of oxidative stress. There is also evidence of genetic polymorphisms that may confer increased disease susceptibility of some individuals exposed to biomass smoke. Interventions that have been suggested to try and limit exposure to biomass smoke, include use of modernised high efficiency biomass stoves and building of chimneys in houses reliant on these fuels. There is therefore, an urgent need to comprehensively understand the extent of health, economic and environmental consequences arising from use of biomass fuels. This will in turn encourage policy markers and African leaders to prioritise programmes aimed at reducing the reliance on traditional biomass fuels.

Kayamba V

P368 | DELAYED REFERRAL FOR DIAGNOSTIC ENDOSCOPY IS A CONTRIBUTING FACTOR TO LATE GASTRIC CANCER DIAGNOSIS IN ZAMBIA

Kayamba V[1,2], Kelly P[1,2,3]
[1]University of Zambia School of Medicine, [2]Tropical Gastroenterology and Nutrition Group, [3]Barts and The London School of Medicine and Dentistry

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVES There is evidence that 15% of gastric cancer patients in Zambia survive more than one-year after diagnosis. The major contributing factor to these poor outcomes is late case detection. We endeavoured to analyse the time frames from the onset of symptoms to clinical diagnosis of gastric cancer in order to establish the contributors to late diagnosis.

METHODS The study was conducted at the University Teaching Hospital, in Lusaka. Consenting patients presenting to the endoscopy unit were enrolled and their endoscopic findings recorded. An interviewer-administered questionnaire was used to collect information on basic characteristics, presenting symptoms and duration.

RESULTS We enrolled 388 patients, 92 (24%) of whom had gastric cancer. Among the gastric cancer patients, the median age was 58 years, (IQR 46–70 years). 49/92 (53%) were female. About two-thirds of the gastric cancers were located in the distal part of the stomach. The main presenting symptoms for gastric cancer patients were abdominal pain 48/92 (52%), vomiting 14/92 (15%), blood loss 12/92 (13%), dysphagia 10/92 (11%) and anaemia 3/92 (3%). The median time to endoscopic gastric cancer diagnosis was 12 weeks, IQR 4–32 weeks after the first health care consultation. This was despite gastric cancer patients seeking healthcare attention within a median of 2 weeks, IQR 0–4 weeks of noticing the symptoms. Patients presenting with persistent vomiting or evidence of blood loss had significantly shorter delays than those with abdominal pain ($p < 0.05$ and $p < 0.001$ respectively).

CONCLUSIONS Delayed referral for diagnostic endoscopy is a contributing factor to late gastric cancer diagnosis in Zambia. There is, therefore, an urgent need for affordable and non-invasive diagnostic tools that will aid clinicians identify early gastric cancer.

Kayamba V

P369 | SERUM ANTIBODIES TO HELICOBACTER PYLORI ANTIGENS ARE ASSOCIATED WITH ACTIVE GASTRITIS BUT NOT GASTRIC CANCER IN A ZAMBIAN POPULATION

Kayamba V[1,2], Zyambo K[2], Mulenga C[2], Mwakamui S[2], Masharip A[1], Kelly P[1,2,3]

[1]University of Zambia School of Medicine, [2]Tropical Gastroenterology and Nutrition Group, [3]Barts and The London School of Medicine and Dentistry

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The sero-prevalence of Helicobacter pylori (H. pylori) infection among Zambian adults is over 80%, but little is known about specific bacterial characteristics influencing gastric carcinogenesis in this population. The aim of this study was to evaluate the associations between pre-selected H. pylori antibodies with gastric cancer, premalignant lesions and active gastritis.

METHODS Patients with gastric cancer (GC) or gastric premalignant (GP) lesions were compared to those without these lesions (controls), including patients with either active or chronic gastritis. A fluorescent bead-based antibody multiplex serology assay was used to quantify antibodies to thirteen immunogenic H. pylori antigens. Logistic regression models were used to examine the associations.

RESULTS Included were 295 patients: 59 GC, 27 GP lesions and 209 controls. Compared to those without the infection, H. pylori seropositivity was not associated with sex, age, body mass index, socio-economic status, HIV infection, alcohol consumption or cigarette smoking (p-values all above 0.05). When compared to the controls, the presence of catalase and cinnamyl alcohol dehydrogenase (Cad) antibodies was positively associated with GP lesions (OR 3.53; 95% CI 1.52–8.17 and OR 2.47; 95% CI 1.08–5.67 respectively). However, Cad was significantly lower in GC patients than in the controls (OR 0.28; 95% CI 0.09–0.83). Compared to chronic, active gastritis was significantly associated with (p<0.05) H. pylori sero-positivity (OR 9.46; 95% CI 1.25–71.52) and specific antibodies including cytotoxin-associated gene A, vacuolating cytotoxin A, Helicobacter cysteine-rich protein C, hypothetical protein HP0305 and outer membrane protein HP1564.

CONCLUSIONS Among Zambian patients, specific H. pylori antibodies are associated with active gastritis but not GC.

Khan S

P158 | HISTIOCITOSE X /HISTIOCITOSE DE CÉLULAS DE LANGERHANS EM DOENTE JOVEM: EXPERIÊNCIA DO SERVIÇO DE ONCOLOGIA DO HOSPITAL CENTRAL DE MAPUTO

Khan S[1], Morais A[1], Sitoe N[1], Tulsidas S[1]
[1]Hospital Central de Maputo

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

A Histiocitose de células de langerhans (HCL) é uma doença hematológica rara, caracterizada por distúrbio do sistema reticuloendotelial com proliferação células apresentadoras de antígenos detríticas, associada a reação imunológica ou a um processo neoplásico. Embora não conhecida a etiologia, a maioria dos casos são reportados em pacientes em idade pediátrica e sexo masculino. As manifestações da doença são variadas descrevendo-se lesões ósseas 80%, pele 50%, linfonodos 33% e outros órgãos 20% dos casos. A detecção precoce é difícil pelo facto de não ter uma apresentação clínica específica, e depende da comprovação histopatológica de presença de histiócitos, e imunohistoquímico com a expressão do antígeno de superfície CD1a e a expressão citoplasmática e nuclear da proteína S100. O tratamento inicial é com Quimioterapia e em alguns casos é indicado o tratamento com Radioterapia. O objetivo deste trabalho é Relatar 2 casos de jovens, do sexo feminino, com idades 19 e 23 anos, ambas seronegativas para HIV, tratadas inicialmente como casos de mal de Pott, devido a apresentação clínica de linfadenopatia seguida de paraplegia e a alta incidência local de tuberculose, correlacionar a hipótese infeciosa com etiopatogenia da doença.

MATERIAL E METODOLOGIA Relato de caso, Revisão de literatura, Analise descritiva. A importância deste relato, deve-se ao facto de a Histiocitose ser uma doença de ocorrência rara sobretudo em mulheres, em idade jovem, ambas com a mesma proveniência geográfica (Província de Inhambane). Devido a epidemiologia da tuberculose no País, muitos doentes com quadros semelhantes são submetidos a tratamento específico mesmo sem confirmação laboratorial da presença bacteriana. São necessárias mais evidências de casos para melhorar a conduta nestes doentes, recomendamos mais estudos em doentes com quadro semelhante provenientes de Inhambane.

Khoali L

P123 | CANCER INCIDENCE IN EKURHULENI DISTRICT, FIRST YEAR OF ACTIVE CANCER SURVEILLANCE

Khoali L[1]
[1]National Cancer Registry

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE South Africa implemented its first urban population-based cancer registry in 2017. We present cancer incidence rates in the first year of active cancer surveillance in Ekurhuleni district, Gauteng province, South Africa.

METHODS The 2017 cancer incidence data was collected through active surveillance in both public and private health facilities in Ekurhuleni district. In addition, we used two passive data sources; pathology reports from the National Cancer Registry and electronic reports from the South African Oncology Consortium. Crude and age standardised rates (ASR) were calculated, stratified by gender and race.

RESULTS In 2017, cancer cases reported were 1414 and 1957 in men and women respectively. Cancers occurred in 2090 (62.0%) black Africans, 1135 (33.7%) Caucasians, 58 (1.7%) Coloureds, 50 (1.5%) people of Indian/Asian origin and race was not specified in 38 (1.1%) people. Leading cancers in men were prostate (ASR 30.63 per 100 000), colorectal (ASR 6.42), lung (ASR 4.39), non-Hodgkin lymphoma (ASR 3.23) and Kaposi's sarcoma (ASR 2.81). In women, the most common cancers were breast (ASR 33.83 per 100 000), cervix (ASR 25.62), colorectal (ASR 7.05), uterus (ASR 6.01) and lung (ASR 4.72).

CONCLUSIONS The leading cancers in Ekurhuleni district reflect a mixed cancer burden consistent with the economic and racial diversity of South Africa. This comprises cancers (such as breast, prostate, colorectal and lung) of importance in high human development index (HDI) countries as well as infection-related cancers such as cervix and Kaposi's sarcoma which are prominent in low HDI countries. Cancer control policies in South Africa need to target both westernisation (lifestyle, dietary and hormonal) and poverty related (infection-related) cancer risk factors.

Kinyanjui A

P075 | CREATING A SAFE CULTURE FOR CHEMOTHERAPY ADMINISTRATION IN KENYA: A SUSTAINED CAPACITY BUILDING MODEL

Kinyanjui A[6], Karagu A[1], Makumi D[2], Gathitu E[3], Weru I[4], Wambugu I[5], Mushani I[7]
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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cancer cases are rising globally with most cases projected to occur in low-middle income countries. With the growing number of facilities providing chemotherapy services, there is a need to build capacity for both health care workers and support staff on how to safely manage chemotherapeutic agents. This project equipped health care professionals in chemotherapy centres with the requisite knowledge and skills to safely deliver chemotherapeutic agents and manage side effects. The project also equipped public hospitals with the required Personal Protective Equipments (PPEs).

METHODS The National Cancer Institute of Kenya convened a multi-institutional steering committee with representation from public, private and faith-based hospitals, academic institutions and civil society organisations. This was further broken down into curriculum and standard operating procedures (SOPs) development subcommittees. The American Cancer Society supported initial training and the committees subsequently developed a locally-contextual based curriculum and training materials. Two national Trainer-of-Trainers (ToTs) sessions and two cascaded trainings were conducted during the initial phase.

RESULTS Sixteen master trainers formulated the local curriculum and developed training materials. They also facilitated ToT training. A total of 107 health care workers were trained; 53(49%) trained as ToTs. Among the trainees, 59(55%) were nurses, 17(16%) were medical officers/clinical officers and 31(29%) were pharmacists/pharmaceutical technologists. Majority (59%) of the trainees were drawn from public hospitals.

CONCLUSIONS Countries need to establish local training experts to promote safe handling and delivery of chemotherapeutic agents. Public private partnerships can be effective in building the human resource capacity for cancer care in Kenya by leveraging existing local expertise across all

Kiprono H

P076 | IMPORTANCE OF DATA QUALITY ASSESSMENT (DQA) IN RESEARCH AND CLINICAL PROGRAMMES: EXPERIENCE FROM MULTI-NATIONAL LUNG CANCER CONTROL PROGRAM-MLCCP (KENYA)

Kiprono H[1], Milanzi A[2], Chemweno C[1], Atundo L[1], Midiwo N[1], Chite F[1]
[1]Academic Model Providing Access to Healthcare, [2]New Dimension Consulting

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION High quality data and effective data quality assessment are necessary for accurately evaluating the impact of data reporting and measuring disease outcomes. Data collection, data processing, reporting and data storage constitute the data flow process that need to be assessed for overall data quality and integrity.

OBJECTIVE To identify gaps and corrective action points in all dimensions of data quality.

METHODS The assessment was based on five dimensions of data quality: (a) Validity, (b) Reliability, (c) Timeliness, (d) Precision and (e) Integrity. To achieve this, the AMPATH Multinational Lung Cancer Control Program staff, together with an independent reviewer, conducted the following five phases: (1) examination and understanding of the data flow process along the cascade of care; (2) Validation of hard copy data collection tools as well as the database (Point of Care System). (3) Data verification using source documents (patient charts, training participant's list and awareness activity attendance); (4) Conducting community visit and (5) completing the data quality check list.

RESULTS The results of validity showed whereas the quality of data was excellent at the central AMPATH, supervision, verification of data and support were the main gaps identified at the community level affecting quality of data. In addition, unavailability of standard operating procedures (SOP) to correct known data errors were the gaps identified in data processes within the Point of Care System used in clinical care at that level. The need to strengthen physical files security at the main hospital, having distant back-up servers and independent end of project phase evaluation were the gaps identified to assess integrity. Solutions included allocating resources (training and support) for Data Quality Assessment, establishing standards and guidelines, and changing organisational culture. Based on the assessment relative to the five standards, the overall conclusion regarding the quality of the data was rated acceptable.

CONCLUSION Several barriers affecting Data Quality Assessment and reporting were identified. Integrating the Clinical team, community core team, information technology team, M&E and data management team towards systematic DQA would overcome these gaps. Understanding gaps and solutions to DQA reporting is paramount to establishing trust within the data flow process, data reporting, data analysis and publication. Future research and clinical studies should conduct routine checks to have quality data.

Kiptoo S

P026 | LOSS TO FOLLOW-UP IN A CERVICAL CANCER SCREENING AND TREATMENT PROGRAM IN WESTERN KENYA

Kiptoo S[1], P. Otieno G[3], Philiph T[1], Rosen B[5], Mwangi A[1], Muthoka K[1], Orango O[1], Peter I[1], Patrick JL[4], Cu-Uvin S[2]

[1]Moi University/Academic Model Providing Access to Healthcare, [2]Brown University, [3]KEMRI Wellcome Trust, [4]Indiana University, [5]Oakland University William Beaumont

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Increasingly, evidence is emerging from developing countries like Kenya on the burden of loss to follow-up (LTFU)from care after a positive cervical cancer screening/diagnosis. This has been shown to negatively impact cervical cancer management. Unfortunately little or no information exists on the subject in the western Kenya. This study is designed to determine the proportion, predictors and reasons for defaulting from follow-up care after positive cervical cancer screen using visual inspection using acetic acid (VIA).

METHODOLOGY We conducted a prospective study of women, who presented for cervical cancer screening at Chulaimbo and Webuye sub county hospitals and screened positive by VIA. A 2–3 weeks appointment was then set for review by a gynae-oncologist. A total of 100 women, scheduled for review, were recruited in the study and followed between August 2016 and May, 2017. LTFU was defined as failure to keep scheduled appointment or being unreachable for 3 consecutive months and failure to confirm that a woman sought for care in another health facility. Descriptive statistics were used to summarise data and the Cox proportional hazards model to determine factors associated with LTFU.

RESULTS The age range was 21–77 years, with a mean of 44.45 years (STD=12). Thirty nine percent 39% of the women defaulted from scheduled follow-up appointment of which 25 (64%) were LTFU. Univariate cox regression was conducted for HIV cases (HR=2.7, p-value=0.021), clinic revisits (HR=2.6, p-value=0.026), married (HR=0.63, p-value=0.237) and previously screened women (HR=1.67, p-value=0.198). Increased risk of LTFU was observed for HIV cases (HR=2.4, p-value=0.04) and revisits (HR=7.5,p-value=0.014) in a multivariable model.

CONCLUSION LTFU affects cervical cancer management due to several factors some of which are beyond the control of the women. 25% of women with cervical dysplasia are LTFU before treatment; HIV-infected women were at higher risk of being lost to follow-up, main reasons associated with LTFU include lack of fare, Myths and receiving traditional treatment.

Kisilu N

P176 | RECURRENT KAPOSI'S SARCOMA: EXPERIENCES FROM MOI TEACHING AND REFERRAL HOSPITAL, ELDORET- KENYA

Kisilu N[1], Njiru E[3], Kirui S[1], Kisuya J[1], Saina C[1], Asirwa C[1,2,3]
[1]Ampath Oncology Institute, [2]Indiana University School of Medicine, [3]Moi University School of Medicine

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Kaposi's sarcoma is the commonest HIV/AIDS associated malignancy and most of the disease burden is found in Sub Sahara Africa. Pegylated liposomal doxorubicin has been proven to be efficacious in patients with advanced Kaposi's sarcoma (KS) even in those who failed prior chemotherapy.

OBJECTIVE To describe the characteristics of the patients with recurrent Kaposi's Sarcoma and their treatment outcomes.

METHODS This is a descriptive retrospective study involving patients with recurrent Kaposi's sarcoma in Moi Teaching and Referral Hospital from March 2018 to February 2019. We included only adult patients, confirmed cases of KS by histology, have failed at least 1 chemotherapy regimen and have received at least 6 cycles of pegylated liposomal doxorubicin as the current treatment. Their demographic data, presenting manifestations, viral load, CD4 counts and Eastern Cooperative Oncology Group (ECOG) performance were collected and analysed.

RESULTS Between March 2018 and February 2019, there were a total of 60 adult patients with recurrent Kaposi's sarcoma but 40 with complete data. Sixty five percent (26) were male, 12.5% (5) were sero-negative and the median age was 35 (28–73). At baseline, ninety percent (36) patients presented with both cutaneous manifestations with lymphedema while 10% (4) had cutaneous manifestations only. Ninety percent (36) patients had a baseline performance status of ECOG 0 and 1 and 10% (4) had ECOG 2. After 6 cycles of chemotherapy the CD4 counts and performance status of the patients improved significantly (p value=0.020 and p value=0.001) respectively while there were no improvements in viral load (p value=0.62)

CONCLUSION The most common presentation of patients with recurrent Kaposi's sarcoma were cutaneous manifestations with lymphedema and majority of the patients had both clinical and CD4 count improvement after treatment with pegylated liposomal doxorubicin.

Kisilu N

TRENDS AND INCIDENCE OF MALE BREAST CANCER IN MOI TEACHING AND REFERRAL HOSPITAL, ELDORET-KENYA, JAN 1997–DEC 2017

Kisilu N[1], Rop M[1], Chesumbai G[2], Asirwa C[1,3]
[1]Ampath Oncology Institute, [2]Eldoret Cancer Registry, [3]Indiana University School of Medicine

MEETING ROOM 3

**Wednesday
6 November 2019
10:30–11:30**

BACKGROUND Male breast cancer is a rare disease; it accounts for less than 1% of all breast cancer cases and less than 1% of all malignancies in men. The incidence is much higher in sub-Saharan Africa. Male Breast cancer is less known and thus late presentation and delayed diagnosis in sub-Saharan Africa. Due to its rarity, there is limited literature regarding trends, incidence and relevant management of Male breast cancer.

METHODS In this study, we describe the trends and overall incidence of male breast cancer in Moi Teaching and Referral Hospital, Eldoret from 1997 to 2017 using data extracted from Eldoret Cancer Registry.

FINDINGS A total of 23,704 cancer cases were registered between Jan 1997 and Jun 2017, 1864 (7.9%) of these were breast cancer cases of which 117 (6.2%) were male. The median age of male breast cancer patients was 61 (27–91 years). About 40% were over the age of 65. Infiltrating ductal cell carcinoma was the commonest morphological subtype and late stage presentation was common.

CONCLUSION Male breast cancer remains a rare disease, although the incidence is rising. The incidences in Moi Teaching and Referral Hospital were higher than in developed countries but comparable with other Sub-Sahara African countries. Incidence increased significantly with advancing age. Opportunities to accelerate early diagnosis and prompt treatment exist through improved disease awareness and expansion of access to breast cancer screening among men. Multicentre studies are also encouraged to provide more data on male breast cancer.

Kithaka B

P018 | LITERATURE REVIEW ON KNOWLEDGE, ATTITUDES AND PRACTICE IN CERVICAL CANCER SCREENING AND HPV VACCINATION IN KENYA: LESSONS LEARNED/CRITICAL CONSIDERATIONS IN REMOVING BARRIERS TO ELIMINATE CERVICAL CANCER IN AFRICA

Kithaka B[1], Bor J[3], Ochieng E[2], Karagu A[4]
[1]Women 4 Cancer Early Detection & Treatment, [2]Kenya Cancer Association, [3]Ministry of Health, [4]National Cancer Institute

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cervical cancer is the fourth most common cancer globally. East Africa has an estimated Age Standardised Rate (ASR) of 40.1 per 100,000 women. In Kenya, cervical cancer is the leading cause of cancer deaths among women. Nine women die daily from the disease, even though it is preventable through HPV vaccination, and screening for early detection coupled with timely treatment of pre-cancerous lesions in women. The aim of the literature review was to get an in-depth understanding of existing research about knowledge, attitudes, practices and beliefs regarding HPV vaccination and screening in Kenya, and to identify potential gaps in the existing body of knowledge.

METHODS Published and unpublished literature on cervical cancer in Kenya was reviewed and organised under emerging themes. Electronic databases PubMed, Medline, Scopus, Cochrane Library, Science Direct, Embase as well as Google Scholar were searched for primary studies. The online database search generated 92 published articles. 47 remained after duplicates were removed. These articles were assessed for eligibility and 11 of them were excluded as they addressed cervical cancer treatment and not prevention. A total of 36 articles were included for final review.

RESULTS: The literature review observed that despite a high incidence of cervical cancer in Kenya:
- Less than 15% of eligible women have ever been screened and only 3.5% of these are screened every 3 years,
- The national screening program implementation has been inconsistent,
- There exists social, economic, religious, cultural, and health systems barriers to accepting cervical cancer prevention through HPV vaccination and screening.

CONCLUSIONS The barriers to HPV vaccination and screening are amenable to change through advocacy, education and visible endorsement of prevention methods by the government. Improvement in screening and HPV vaccination uptake can be achieved through a well-planned and funded strategic communication and mobilisation plan. Messages need to be targeted to specific audience's while being culturally sensitive. Community leaders need to be brought on board to help communicate the goals and benefits of HPV vaccination and address concerns about vaccine safety.

OUTCOMES Using these learnings, the team was able to craft a strategic behaviour change communications and cervical cancer platform (STOP Cervical Cancer Initiative) which is an annual advocacy platform that can be utilised across Africa in response to the call by WHO, to Eliminate Cervical Cancer.

WELCOME RECEPTION AND POSTER SESSION ONE

Kizub D

P010 | RESEARCH PRIORITIES OF PATIENT ADVOCATES IN BREAST AND CERVICAL CANCER IN EAST AND SOUTHERN AFRICA

Kizub D[1], Meyer S[2], Turner L[3], Gralow J[4,5], Zujewski J[6], Dvaladze A[4,5]
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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Research about breast and cervical cancer in Africa has focused on patient-related and health system-related barriers to screening, early detection, diagnosis, and treatment; cancer stage at diagnosis and treatment outcomes; HPV vaccine implementation; integration of cervical cancer into HIV programming; screen and treat programs for cervical cancer, and early treatment programs for breast cancer. We describe research priorities of participants of the 2019 Women's Empowerment Cancer Advocacy (WE CAN) Summit in Johannesburg, South Africa.

METHODS Participants filled out surveys that included an open-ended question about what cancer-related research question they would like to be addressed in their community. Answers were analysed for prevailing themes.

RESULTS Forty-two participants filled out surveys. Most were female (90.5%), with a median age of 48.5 (range 28–70). Education included school (9.5%), some university (33.3%), graduate degree (40.5%), nursing or MPH (9.5%), MD or social work (2.5%). Participants identified as cancer survivors (52.4%), advocates (54.8%), NGO (50.0%), researchers (4.9%), and clinicians (11.9%). Thirty-six (85.8%) answered the question about research priorities, with the following most common suggested topics: how to address barriers to care (21.6%), cervical cancer/HPV vaccination (21.6%), culture/religion and stigma in cancer care (16.2%), needs of survivors (13.5%), evidence-based patient navigation (8.1%), impact of cancer campaigns (8.1%), needs of patients with metastatic cancer (5.4%), and impact of sexuality on patient needs (5.4%).

CONCLUSIONS The African Organisation for Research and Advocacy in Cancer best practices in research advocacy include continuous assessment of priorities of cancer patients and partnership with scientists. We found that research priorities of patient advocates and survivors focus on addressing patient needs, quality of life, and access to care. Following the principle "Nothing for us without us", research questions deemed relevant by patient advocates and survivors should be taken into account when setting national and regional research priorities related to cancer care.

Alatise O

CLINICOPATHOLOGIC COMPARISON OF NIGERIAN AND SOUTH AFRICAN COLORECTAL CANCER PATIENTS

Alatise O[1], Bebington B[3], Knapp G[2], Kingham T[2]
[1]Obafemi Awolowo University, [2]Memorial Sloan Kettering Cancer Center, [3]University of the Witwatersrand

MEETING ROOM 3

**Thursday
7 November 2019
13:30–14:30**

OBJECTIVE The phenotype of colorectal cancer (CRC) in Nigeria is distinct from that seen in the U.S. In South Africa (SA), there appears to be a similar trend between individuals of African and European descent. This study compares clinicopathologic variables between CRC patients in Nigeria and SA.

METHODS From Nigeria, 380 consecutive patients (09/2013–03/2019) from the African Research Group for Oncology (ARGO) CRC database were compared to 534 consecutive patients (01/ 2016–01/2019) from the Colorectal Cancer in South Africa (CRCSA) database. Patients with histologically confirmed adenocarcinoma were included. Patients were excluded if they had in-situ disease, no histological diagnosis or were unable to give written, informed consent.

RESULTS The median age at presentation was identical between Nigerian and black SAs (bSA) (55) with CRC. This was significantly lower than the median age among white SAs (wSA) (55 vs. 63, $p<0.001$). The Nigerian cohort had a higher proportion of cases in individuals younger than 30 years of age (8.2% vs. 4.0%, $p=0.003$). There was significantly more right-sided colon cancer in black and mixed-race patients in both cohorts compared to wSA ($p=0.014$). Nigerian patients were more likely to present with stage IV disease (50%) compared to both black (30%) and wSAs (23.5%, $p<0.001$). They were also more likely to have tumours with a mucinous component (38.4% vs. 9.9% bSAs vs. 11.7% wSAs, $p<0.001$). There was a significant difference in the median overall survival between cohorts and by ethnicity ($p<0.001$).

CONCLUSION There is significant variability in the phenotype of CRC between Nigeria and South Africa. In patients of African origin, CRC appears to share characteristics that are different than those of non-African origin – despite a similar environment. Larger series with tissue banking and next-generation sequencing are needed to better delineate these observed differences.

Knapp G

P399 | AN EXPLORATORY ANALYSIS OF FAECAL IMMUNOCHEMICAL TEST PERFORMANCE FOR COLORECTAL CANCER SCREENING IN NIGERIA

Knapp G[1], Sharma A[1], Olopade B[2], Alatise O[2], Olasehinde O[2], Arije O[2], Kingham T[1]
[1]Memorial Sloan Kettering Cancer Center, [2]Obafemi Awolowo University

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The faecal immunochemical test (FIT) for haemoglobin is recommended for colorectal cancer (CRC) screening in resource-limited environments. However, there are several unique variables that may alter FIT performance in this setting, including endemic intestinal parasites and high ambient temperature. This prospective study evaluated the performance of FIT in asymptomatic, average-risk individuals of screening age in rural Nigeria.

METHODS Three hundred and twenty-four community volunteers completed a questionnaire and provided stool specimens for parasitology and microbiome analysis. Specimens were frozen and stored at −80oC. Of 324 subjects, 139 met criteria for average-risk CRC screening and had a stool sample for analysis. These were thawed and tested with a qualitative FIT. Specimens positive for occult-blood were re-tested every two days to evaluate the impact of time and temperature on test performance.

RESULTS Of 139 individuals, 69 (49.6%) were positive for intestinal parasites and 10 (7.2%) were positive for occult blood. The most common pathogen was Cryptosporidium (40.6%). Among patients with intestinal parasites, 10.1% (7/69) had a positive FIT. Only 4.3% (3/70) of patients without parasites had a positive FIT (p=0.208). On bivariate analysis, sociodemographic variables were not associated with a positive FIT result. Thirty percent (3/10) of the FIT-positive specimens became FIT-negative with routine storage.

CONCLUSIONS Although a positive FIT result was more common in those with parasitic infection, the relationship was not significant in this small cohort. The impact of high ambient temperature on test positivity may necessitate shorter processing time guidelines for equatorial countries. Additional prospective studies are needed to validate FIT performance in Nigeria.

Knapp G

P400 | THE FINANCIAL TOXICITY OF BREAST CANCER MANAGEMENT IN NIGERIA: AN EXPLORATORY ANALYSIS

Knapp G[1], Wuraola F[2], Olasehinde O[2], Alatise O[2], Isa B[2], Romanoff A[3], Kingham T[1]
[1]Memorial Sloan Kettering Cancer Center, [2]Obafemi Awolowo University, [3]Mount Sinai

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The incidence of breast cancer has increased by 80% in Nigeria over the last four decades. The cost of cancer care can be significant and in Nigeria the majority of healthcare spending is out-of-pocket. This study quantified the cost of breast cancer management and the associated rate of catastrophic healthcare expenditure (CHE) at a public hospital in Ife, Nigeria.

METHODS Patients treated between January 2018-August 2018 were identified from a prospective breast cancer database. A questionnaire was developed to capture socioeconomic information and direct and indirect treatment related costs. A commonly used threshold for a CHE (40% capacity-to-pay) was used in this analysis. Local currency was converted to purchasing power parity (2016 Intl$).

RESULTS Complete data was collected on 18 of 72 eligible patients. The majority (72%) had locally advanced disease. Annual mean non-food household expenditure (capacity-to-pay) was 5,866 (Intl$), which was above the average for the region (2,172 Intl$). The relative affluence of the cohort was reflective of the proportion of individuals with higher education (89% ≥ secondary education). The mean cost of diagnosis and treatment was 3,440 (Intl$), with the cost of chemotherapy alone accounting for 41%. At a threshold of 40% capacity-to-pay, 81% of patients experienced a CHE. Twelve of 18 (67%) had no form of health insurance. None of the patients eligible to receive radiotherapy underwent treatment owing to cost and availability. Financial constraint precluded surgery for resectable disease in 3/18 (17%).

CONCLUSION Our cohort was more affluent than regional and national averages. However, the out-of-pocket cost of breast cancer care at a public hospital in Nigeria remains high and resulted in a CHE for over 80% of individuals. Greater financial protection is essential as the burden of breast cancer increases in Nigeria.

Koranteng L

P257 | CURRENT PRACTICES IN CANCER PAIN MANAGEMENT IN SEMI-RURAL NIGERIA

Koranteng L[1], Agboola O[2], Alatise I[2], Johnson L[1], Barton-Burke M[1], Kingham P[1], Scholten W[3]
[1]Memorial Sloan Kettering Cancer Center, [2]Obafemi Awolowo University Teaching Hospitals Complex, [3]Willem Scholten Consultancy

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES

- To describe current access to pharmacologic options for the management of cancer pain in semi-rural Nigeria through a workshop with nurses and pharmacists.
- To identify non-pharmacologic treatments for cancer pain in limited resource settings.

BACKGROUND The African Research Group for Oncology (ARGO) is a National Cancer Institute recognised cancer consortium. Prior to the 6th Annual ARGO Symposium in April 2019, nurses and pharmacists expressed an interest in a workshop on palliative care. Symptom management is an important aspect of palliative care with cancer pain being a common symptom. Cancer pain occurs in 20–50 % of patients and about 80% of patients with advanced cancer have moderate to severe pain. The treatment of cancer pain often relies on the use of opioids, however, access to opioids in resource limited settings is challenging. Therefore, there is a need to think about innovative pain management solutions including non-pharmacologic options. Audience feedback response during and after the workshop were explored.

METHODS The workshop led to an exploration of current practices and areas that clinicians identify as being challenging aspects of pain management. Through dialogue prior to, during and after workshop session at ARGO, a list of recommendations highlighting potential areas of change were identified.

RESULTS Participants highlighted some of the challenges associated with:

1) Limited access to long-acting opioid formulations for chronic pain.
2) Potential incorporation of other non-pharmacologic pain management including psychosocial support to assist with family and financial distress.

Other suggestions made in the literature were reiterated and included:

1) Need to change legislation and regulation with regards to access to opioids.
2) Further education and training of clinicians in interdisciplinary pain management practices.

CONCLUSIONS Participants expressed an interest in developing other practical options for pain management such as potential low cost long acting morphine formulations as well as other practical non-pharmacologic options.

Korir A

UTILITY OF CANCER REGISTRY DATA IN INFORMING CANCER CONTROL INTERVENTIONS: THE MERU COUNTY BLUEPRINT FOR SUCCESS PROGRAM

Korir A[1], Gakunga R[1], Ali Z[3], Odoyo E[2], Munene D[2], Karua F[4], Otieno P[4], Gathere S[1], Karoki L[5], Chite A[2]

[1]Kenya Medical Research Institute, [2]Ampath Oncology, [3]Kenya Hospices and Palliative Care Association, [4]Amref Health Africa, [5]Meru County

MEETING ROOM 3

Friday
8 November 2019
12:45–13:45

OBJECTIVE Cancer surveillance programmes in particular population-based cancer registries are essential in providing data on cancer burden in a defined population, therefore informing interventions. Breast and cervical cancer are the leading cancers among women in Meru county, informed by data generated by the Kenya national cancer registry. Our OBJECTIVE was to use innovative approaches to address the burden of cancer and other non-communicable diseases (NCDs) in Meru County and to optimise the care given to cancer patients through systematic implementation of evidenced-based interventions in prevention, early detection, prompt treatment, palliative and survivorship care.

METHODS A model that utilises a multi-institutional, multidisciplinary approach was designed to address the burden of NCDs in Kenya. The programme labelled the Blueprint for success brings together a team of Kenyan oncologists, researchers, palliative care experts, community health facilitators to holistically address the burden of cancer, diabetes and hypertension in Meru County, Kenya. Primary Health Care (PHC) approach was used and programmes were designed focusing on screening, training of community health workers (CHWs), creating awareness, education of primary care physicians, establishing palliative care services and strengthening the cancer registries.

RESULTS The Meru blueprint for success programme leverages innovative models of service delivery by a multi-institutional, multidisciplinary team collaborating with the Meru County government, local and international partners to deliver holistic health for the community. Our anticipated targets include improvement in the screening and early detection of NCDs, improved community awareness and increase in the number of CHWs and nurses trained in the early detection of NCDs, improvement in infrastructure and knowledge among primary healthcare physicians, improved referral pathways, access to treatment and improved quality of life.

CONCLUSION Primary health care intervention is a key strategy to realising Universal Health Coverage. This model if successful will be replicated in other parts of the country and is expected to dramatically reduce the burden of NCDs in Kenya.

Kozlakidis Z
LB007 | THE IARC BIOBANK AND COHORT BUILDING NETWORK (BCNET)

Kozlakidis Z[1], Caboux E[1], Villar S[1], Henderson M[2]
[1]International Agency for Research on Cancer, [2]National Institutes of Health

NEW HALL

Tuesday
5 November 2019
18:15–20:00

Biobanks, which facilitate the collection and storage of research-ready, high-quality biological specimens and associated data, play a key role in scientific research on disease prevention, screening, and treatment. In contrast to the situation in high-income countries where support might be committed for the longer-term, biobank infrastructures and related guidelines and protocols are much less developed in LMICs. This constitutes a serious barrier to high-quality scientific research projects in LMICs. In line with IARC's and WHO's mission in contributing to worldwide cancer research, and in collaboration with the US National Cancer Institute – Centre for Global Health (NCI-CGH) and other international partners, a biobank network (BCNet) was set up as an opportunity for LMIC to work together in a coordinated and effective manner and jointly address the shortfalls in biobanking infrastructure and other shared challenges, including ethical, legal and social issues. The network will facilitate the sharing of resources and the development of joint projects, strengthening the competitiveness of the LMIC biobanks in applying for international funding. The founding members include 30 representatives from 16 LMICs. Membership is not exclusive and is open to other LMIC biobank institutions that are willing and able to work together for common interest and agree with the principles and practices endorsed by the BCNet governance

Kozlakidis Z
LB010 | ISBER BEST PRACTICES TO GUIDE REPOSITORY ACTIVITIES

Simeon-Dubach D[2,3], **Kozlakidis Z**[1], Henderson M[4], Campbell L[3], Garcia D[3]
[1]International Agency for Research on Cancer, [2]Medservice, [3]ISBER, [4]National Institutes of Health

NEW HALL

Tuesday
5 November 2019
18:15–20:00

High quality biological and environmental specimens are critical research tools in developing targeted therapies and precision medicine. The research environment has evolved from research conducted in a single investigator's lab to multiinstitutional, multi-national collaborative efforts with widespread sharing of specimens and genetic data. This points to a need for promoting high quality technical standards for repositories and addressing the specific and challenging ethical, legal, social, and harmonisation issues associated with specimen sharing on a global level. ISBER promotes consistent, high quality standards, ethical principles, and innovation in specimen banking by uniting the global community. ISBER's Best Practices for Repositories (Best Practices) reflects the collective experience of its members and provides repository professionals with a comprehensive tool to guide them in all their repository activities.

The fourth edition of the ISBER Best Practices builds on the foundation established in previous editions produced by ISBER's Education and Training Committee. The Best Practices focuses on the establishment and day-to-day management of a repository and is applicable to repositories that manage either human or envirobio origin material. For the fourth edition, great effort was made to seek input from the diverse ISBER membership for contributions and to prevent any national / federal or regional biases. Working groups were formed to work on the expansion and revision of Best Practices with the goal of including new areas of interest to the repository community and to present a more international perspective to reflect the growing global diversity of the ISBER membership. ISBER, in collaboration with the Society of Cryobiology, has produced an addendum to the fourth edition of the Best Practices which focusesd on the liquid nitrogenbased cryogenic storage of samples. This addendum addresses a long-standing need for the biobanking and cryobiology community and reflects the high degree of scientific collaboration possible between these two societies. Both documents are available for download from the ISBER website (https://www.isber.org/bestpractices).

Krause R

P077 | EVALUATING PALLIATIVE CARE TRAINING IN THE ONCOLOGY REGISTRAR PROGRAM

Krause R[1], Parkes J, Anderson D, Hartman N, Gwyther L
[1]University of Cape Town

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND AND AIM In 2016 the University of Cape Town together with Radiation Oncology in SA identified the need to integrate palliative care in the oncology curriculum at an intermediate level. In collaboration with CANSA, a 12-module curriculum was introduced at five teaching hospitals. The aim of this research was to evaluate the impact of a 1-year Palliative Care course within the oncology registrar program in South Africa. This was a prospective evaluation of an intervention using a mixed mode approach.

METHODOLOGY Blended learning was developed to train and support students (n=32) and facilitators (n=5) across 5 universities. Evaluations forms were electronically collected to determine students' reactions to course materials. Pre and post-MCQ's were used to review knowledge. Focus group discussions were used to explore reactions, change in knowledge and skills and integration of PC. Case studies from Oncology Portfolios will be evaluated to determine the application and integration of skills in their oncology practice.

RESULTS The first objective of this research was to determine the reaction of oncology registrars and their supervisors to a PC course. There was an overwhelmingly positive reaction towards the course. Concerns like the feasibility and appropriateness of the course and material were found unsubstantiated. PC training in oncology is feasible and the topics addressed were appropriate. The second objective was to determine the change in knowledge and skills in PC. The MCQ demonstrated a change in knowledge and skills in symptom management. The poor MCQ results can be ascribed to poor sequencing of the questions. The focus group discussions demonstrated change in knowledge and skills in especially communication skills and pain and symptom management. The focus groups also indicated that the students' approach to PC changed by indicating that they are able to integrate the principles of PC and see PC as an essential component of oncology. The third objective was to determine the application of PC knowledge and skills. The registrars felt the course made oncology 'more fluid' and addressed topics that formed part of their work.

CONCLUSION This research demonstrated that PC training is an essential component in Oncology Training in the South African setting. PC forms part of the daily practice of oncologist and a structured curriculum enable clinicians to practice using an evidence-based approach. Supervisors of the oncology training program and registrars are confident that the training of 12 modules across one year is feasible and appropriate.

Munyoro E

IMPROVING THE CANCER PATIENT EXPERIENCE IN KENYA: COMPARISON OF FOLLOW-UP AND BASELINE DATA FROM KENYATTA NATIONAL HOSPITAL'S PATIENT NAVIGATION PROGRAM

Munyoro E[1], Omulogoli G[1], McComb K[2], Krisel E[2], Freedman H[2], Makori R[1], Wafubwa R[1]
[1]Kenyatta National Hospital, [2]American Cancer Society

MEETING ROOM 4

**Thursday
7 November 2019
10:30–11:30**

OBJECTIVES Kenyatta National Hospital (KNH), the only public hospital delivering comprehensive cancer care in the country, launched a new patient navigation program in June 2017 with support from the American Cancer Society. This study aimed to determine the extent to which identified patient barriers to care are addressed and to assess patient satisfaction with care received after two years of implementation.

METHODS Cross-sectional surveys were administered at baseline in the Cancer Treatment Centre (CTC) (n=453), after one year of implementation in the CTC (n=392), and after two years in the CTC and outpatient clinics (n=344) using quantitative and qualitative methods. Inclusion/exclusion criteria were developed to recruit eligible participants using random sampling methods. A standardised questionnaire was used to collect patient socio-demographic information, clinical, psychosocial, and physical barriers, and satisfaction with care. Quantitative data were analysed using descriptive analysis and correlations tested using Chi-square tests and logistic regression. Qualitative data were analysed thematically.

RESULTS Over half of patients surveyed at baseline had not received directions to the CTC or education about their disease and/or treatment plan. After one year, a third more patients found the CTC within 30 minutes of arriving to KNH, 19.3% more received directions from staff, and 89% reported that finding the CTC was very easy compared to 76.2% at baseline. A third more patients received written materials about their diagnosis. Eighty-eight percent of patients who received directions, and 93% of material recipients were highly satisfied with support provided.

The year two follow-up survey will be fielded in May-June 2019 and data analysed by August 2019.

CONCLUSIONS After one year, patients are better informed about their diagnosis, more able to access the CTC and other service points within the hospital and highly satisfied with support received. After two years, the program hopes to demonstrate further gains in these areas as well as improved psychosocial support.

Omulogoli G

P258 | DESCRIBING OUR PROGRAM: IMPLEMENTATION DATA FROM TWO YEARS' OF PATIENT NAVIGATION AT KENYATTA NATIONAL HOSPITAL

Omulogoli G[1], Munyoro E[1], McComb K[2], Krisel E[2], Freedman H[2], Makori R[1], Wafubwa R[1]
[1]Kenyatta National Hospital, [2]American Cancer Society

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Kenyatta National Hospital (KNH), the only public hospital in Kenya delivering comprehensive cancer care to patients from throughout the country, launched a patient navigation program in 2017 with support from the American Cancer Society. This program addresses identified barriers to cancer care and seeks to ensure patients diagnosed with cancer are well informed, receive timely access to quality cancer treatment, and improve treatment adherence and completion. This presentation summarises the routine program data that describe patient demographics, medical information, barriers to care, and navigation actions to support patients seeking treatment at KNH's Cancer Treatment Centre through June 2019.

METHODS Navigators collected routine program data using standardised intake forms during every patient navigation encounter. These data were analysed in EpiData and reports used for program management, improvement, documentation of achievements and for learning. Quantitative data were analysed using descriptive analysis and correlations tested using Chi-square tests and logistic regression. Thematic analysis was performed for qualitative data.

RESULTS Approximately 4,400 patients have been navigated at KNH. The preliminary results indicate that patients are predominantly from counties surrounding Nairobi and are female aged 50 years and above with late stage of cancer. Cancer of the cervix is the leading diagnosis followed by cancer of the breast and then oesophagus. Most of these patients receive basic cancer education and face multiple challenges accessing treatment. Navigators have been successful in educating the patients to enrol in the national health insurance program and linking patients to services within and outside of KNH.

CONCLUSIONS The routine program data has been instrumental to better understand the population KNH is serving, age and gender, the most prevalent cancers services provided by the navigation team, and main barriers to care. It has also been used to build the case for navigation and gain buy-in and support from both hospital management and providers. The development of this data collection/tracking system has ensured efficient program delivery, coordination with other departments, and timely patient follow-up.

Kudowa E

P124 | SOLUTIONS FOR SELECTIVE LOSS TO FOLLOW-UP IN HIV-CANCER COHORTS IN MALAWI

Kudowa E[1], Chagomerana M[1,2], Horner M[1,3], Edwards J[3], Chasimpha S[4], Dzamalala C[2,4], Gopal S[1,2,3,5]
[1]UNC Project, [2]University of Malawi College of Medicine, [3]University of North Carolina, [4]Malawi Cancer Registry, [5]Malawi Cancer Consortium and Regional Center of Research Excellence for Non-Communicable Diseases

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE To use inverse probability of censoring weights (IPCW) to address loss to follow-up (LTFU) in Malawi, a major contributor to biased cancer survival estimates in sub-Saharan Africa (SSA).

METHODS We estimated overall survival (OS) among incident cancer cases who were HIV+ and newly initiated on antiretroviral therapy (ART) between 2000 and 2010 in Malawi. HIV+ cancer patients were identified by probabilistically linking two large HIV cohorts to the national cancer registry, and follow-up data were captured from the HIV cohorts. We used unadjusted risk ratios (RR) to assess associations between patient characteristics and LTFU. LTFU was defined as missed clinic appointment with unsuccessful tracing for ≥180 days. OS was estimated using unweighted and weighted methods. Variables in the weighted method included age, sex, WHO stage for HIV, and cohort type. Sensitivity analysis using best- and worst-case scenarios was applied to evaluate the robustness of our estimates.

RESULTS Among 883 cases, median age at cancer diagnosis was 35 years (IQR: 30–41), and most common cancers were Kaposi sarcoma (89%) and cervical cancer (5%). Median follow-up time was 5 years (IQR: 1–6), and 257 (29%) cases met the LTFU definition. Male gender (RR: 1.69, CI: 1.37–2.07) and HIV stage 4 (RR: 2.24, CI: 1.74–2.89) were associated with increased risk of LTFU. Both weighted and unweighted 2-year OS were 91%. Sensitivity analysis estimated best and worst case 2-year OS at 91% and 83%, respectively.

CONCLUSION IPCW method failed to significantly correct for bias due to LTFU, resulting in consistently overestimated survival among HIV+ cancer patients in Malawi. This is likely due to limited covariate availability in routinely collected cohort data to generate appropriate censoring weights. In SSA, where comprehensive patient tracing among LTFU groups can be impractical, intensive tracing of representative samples of LTFU patients is likely necessary to accurately estimate survival.

Kugbey N

SHARED DECISION MAKING AND HEALTH OUTCOMES AMONG BREAST CANCER PATIENTS IN GHANA: IMPLICATIONS FOR COMMUNICATION IN ONCOLOGY PRACTICE

Kugbey N[1], Oppong Asante K[2,3], Meyer-Weitz A[4]

[1]University of Health and Allied Sciences, [2]University of Ghana, [3]University of Free State, [4]University of KwaZulu-Natal

MEETING ROOM 4

**Thursday
7 November 2019
13:30–14:30**

OBJECTIVE Power dynamics in the African context between healthcare providers and patients coupled with pressures from workload pose threats to comprehensive care for patients especially in oncology healthcare delivery. Patients' involvement has been reported to positively influence health outcomes of cancer patients in the developed world. However, there is dearth of evidence on how shared decision making-an integral part of patient-centred care, influences health outcomes in a low resource setting like Ghana. This study therefore examined shared decision making and how its influences doctor-patient relationship, depression and anxiety among women living with breast cancer.

METHODS A cross-sectional survey design was used to purposively sample 205 women receiving oncology care at a referral health facility. Participants were administered measures of shared decision making, doctor-patient relationship, depression and anxiety. Data analyses were done by means of SPSS using both descriptive (frequencies, means and standard deviation) and inferential (independent t-test) statistical techniques.

RESULTS The participants had a mean age of 52.49 years (SD = 11.14 years) and about 64% of the participants have received two or more treatment types. The majority (83.9%) of the participants reported being involved in their treatment decision making. Participants who felt involved by their oncology physicians in treatment decision making reported better doctor-patient relationships, lower depression and anxiety levels compared to participants who felt they were not involved in their treatment decision making.

CONCLUSION These findings represent a new shift in health communication in oncology practice in a low resource setting which may hold promise for re-orientation in communication in healthcare delivery for cancer patients. These findings underscore the need for the development of evidence based cost-effective and innovative ways of involving patients in their treatment decision making.

Lachance J

DEVELOPMENT OF A CUSTOM GENOTYPING PLATFORM FOR DETECTING PROSTATE CANCER ASSOCIATIONS IN MEN OF AFRICAN DESCENT

Lachance J[1], MADCaP Network[2]
[1]Georgia Institute of Technology, [2]MADCap Network

MEETING ROOM 3

Wednesday
6 November 2019
13:30–14:30

OBJECTIVE Although prostate cancer is the leading cause of cancer mortality for African men, the vast majority of known disease associations have been detected in individuals who have European ancestry. Furthermore, most genome-wide association studies have used genotyping arrays that are hindered by SNP ascertainment bias. To overcome these disparities in genomic medicine, the Men of African Descent and Carcinoma of the Prostate (MADCaP) Network has developed a custom genotyping array that is optimised for the detection of genetic associations with prostate cancer in African populations.

METHODS This two-peg array is based on the Affymetrix Axiom platform. Imputation accuracy was quantified using over 3000 whole genome sequences from sub-Saharan Africa. We assessed the effectiveness of the MADCaP Array by genotyping over 800 prostate cancer cases and controls from seven study sites in Ghana, Nigeria, Senegal, and South Africa.

RESULTS The MADCaP Array contains more than 1.5 million markers and an imputation backbone that successfully tags 94% of common genetic variants in African populations (MAF > 0.05, r2 threshold = 0.8). To aid in fine mapping, the MADCaP Array also has a high density of markers in genomic regions near known cancer associations, including 8q24. There is a substantial amount of overlap between markers on the MADCaP Array and markers that are on the OncoArray and the H3Africa array. Call rates per-marker exceed 99.5%. We find that prostate cancer cases and controls are ancestry-matched for each study site. PCA and ADMIXTURE plots reveal that samples from Ghana and Nigeria cluster together, and that samples from Senegal and South Africa yield distinct ancestry clusters. We also identify cancer-associated loci that have large allele frequency differences between African populations.

CONCLUSIONS The MADCaP Array will allow investigators to identify novel Africa-specific disease associations and to fine-map genetic loci that are associated with prostate cancer.

Laker-Oketta M

P177 | WHY ARE THEY DIAGNOSED SO LATE? UNDERSTANDING THE CIRCUMSTANCES PRECEDING DIAGNOSIS AMONGST PATIENTS WITH KAPOSI'S SARCOMA IDENTIFIED BY RAPID CASE ASCERTAINMENT

Laker-Oketta M[1], Busakhala N[2,3], Byakwaga H[1], Semeere A[1], Freeman E[4], Martin J[5]
[1]Infectious Diseases Institute, [2]Academic Model Providing Access to Healthcare, [3]Moi University, [4]Harvard University, [5]University of California

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Despite the possibility of remission when diagnosed and treated early, most HIV-related Kaposi sarcoma (KS) in sub-Saharan Africa is diagnosed too late for available treatment to be effective. We sought to explore the events from patients' first recognition of skin lesions until time of KS diagnosis.

METHODS Via rapid case ascertainment, we evaluated consecutive HIV-infected adults newly diagnosed with KS at three community-based health care networks in Kenya and Uganda. Cases were identified from outpatient, inpatient, and laboratory searches. Guided by Andersen's model of health services use, we documented when patients first noticed suspicious skin lesions and subsequent events until KS diagnosis including persons consulted, time durations, opinions received, and interventions pursued.

RESULTS We identified 242 participants with newly diagnosed KS in whom median age was 35 years, 33% were women, and 44% had only primary education. Most (94%) had advanced extent of KS (ACTG stage T1). Participants first sought help a median of 1 month after noticing suspicious lesions (interquartile range (IQR): 1 week to 2 months; absolute range: 1 day to 72 months). They consulted a median of 2 biomedical providers (IQR: 1 to 3; absolute range 1 to 4) over a median of 4 different visits (IQR: 3 to 6; absolute range 1 to 12) prior to KS diagnosis. Only 15% received a KS diagnosis from the first provider consulted. Attribution to witchcraft, use of Traditional Providers, and self-treatment were common. Median time from first lesion identification to KS diagnosis was 2 months (IQR: 1 to 5; absolute range 1 day to 84 months).

CONCLUSION In a representative sample of HIV-infected adults newly diagnosed with KS, we observed delays to KS diagnosis attributable to both patients and health care providers. Interventions to promote early KS diagnosis should target both the public and the health care system.

Sousa A

É NECESSÁRIO CRIAR UM GRUPO DE INTERESSE EM RADIOTERAPIA NOS PALOP

Sousa A[1], Vunda I[2], Gudo Morais A[3], Barbosa C[4], Miguel F[2], Lara Santos L[5]
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MEETING ROOM 4

Friday
8 November 2019
12:45–13:45

OBJECTIVO Os serviços de radioterapia nos PALOP devem obedecer a critérios epidemiológicos, a padrões de qualidade e garantir a continuidade de cuidados ao doente oncológico. Os hospitais que tratam doentes do foro oncológico e que não possuam radioterapia devem estar articulados, por protocolo, com uma unidade de radioterapia instalada no sector público ou privado, no sentido de garantir equidade. Estas unidades devem cumprir os critérios mínimos de equipamento e especialistas garantindo boas práticas. A Formação das equipas é crucial, como é fundamental a criação de um acervo documental, em português, que apoie todos os países. A AORTIC tem um grupo de interesse dedicado à radioterapia que identifica as prioridades clínicas, educacionais e de investigação, promove a troca de informações e práticas no tratamento, pretendendo compilar um directório de recursos de radioterapia em África e organiza oportunidades de treinamento em centros de excelência. Angola e Moçambique já têm serviços de radioterapia, Cabo Verde pretende desenvolver um serviço. Assim, é fundamental criar o grupo de radioterapia dos PALOP-AORTIC.

MÉTODO No 3° Congresso PALOP-AORTIC na Praia, decidiu-se realizar o Manual de Boas Práticas de Radioterapia dos PALOP. Este será aprovado durante o Congresso em Maputo (2019), e definido o programa para a constituição do grupo, em Luanda em 2020.

RESULTADOS O manual inclui: Aspectos epidemiológicos, nomenclatura, conceitos, objectivos, rácio em equipamentos específicos, obrigações e responsabilidades, meios de registo, controlo de qualidade, procedimentos operativos, equipamentos de reanimação, armazenamento e segurança dos consumíveis, assumindo que cada unidade de tratamento poderá tratar 400 novos casos/ano.

CONCLUSÃO O Grupo PALOP de radioterapia dará particular atenção à formação de quadros de radio-oncologia, tendo em conta as normas internacionais e será um apoio às unidades para que o funcionamento seja seguro e de qualidade.

Santos L
FORMAÇÃO EM ONCOLOGIA NOS PALOPS: UM PROGRAMA DE AÇÃO

Lara Santos L[1], Salamanca P[2], Morais A[3], Barbosa C[4], Vieira Lopes L[5]
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MEETING ROOM 4

**Wednesday
6 November 2019
14:40–16:30**

OBJECTIVO Nos países africanos lusófonos, a formação em oncologia é uma necessidade não resolvida. O conhecimento em oncologia detido pelas diversas especialidades que compõem a equipa multidisciplinar de oncologia é, em grande medida, diminuta. Por esse motivo nos diversos encontros promovidos pelos PALOPs os temas educação e treino têm sido amplamente discutidos. Pretende-se encontrar consensos no sentido de que os currículos, as metodologias sejam semelhantes, respondam às carências identificadas e o reconhecimento nacional e pelos países da região, dos quadros formados, possa ter lugar.

METODOLOGIA Auscultação pelo representante dos PALOPs no Comité de educação e treino e de investigação da AORTIC dos responsáveis pela política oncológica de Angola, Cabo Verde e Moçambique, responsáveis pelas unidades de saúde dedicadas à oncologia e internos de especialidade desses países em reunião a 9 de Abril de 2019, em Portugal, com o com o objetivo de identificar aspetos importantes e propor um programa de ação para formação em Oncologia para os países integrantes.

RESULTADOS Conclui-se que a formação em oncologia deverá integrar os programas curriculares dos cursos pré-graduados das distintas licenciaturas da área de saúde. A nível das ordens profissionais deve-se desenvolver ações que visem a formação especializada em oncologia. Promover o debate com o objetivo de apoiar a formação em oncologia cirúrgica, médica e radio-oncologia em cada país. Este, apoiará os colégios já existentes, na organização de competências ou sub-especialidades de oncologia. Deve-se manter a formação não formal em oncologia em todas as áreas mas reconhecida pelas autoridades nacionais e pela AORTIC. Os PALOPS devem divulgar as actividades formativas para que haja cooperação e usufruto por todos os países. Deverão ser elaborados manuais em conjunto de apoio ao ensino da oncologia.

CONCLUSÕES A formação em oncologia foi definida como uma actividade estratégica a integrar os Planos Oncológicos dos PALOPs.

Lara Santos L

P078 | FORMAÇÃO DA EQUIPA MULTIDISCIPLINAR DE ONCOLOGIA DO HOSPITAL MILITAR PRINCIPAL DAS FORÇAS ARMADAS ANGOLANAS

Costa F[1], Rosa B[1], Domingos C[1], Afonso J[1], **Lara Santos L**[2]
[1]Hospital Militar Principal das Forças Armadas Angolanas, [2]Instituto Português de Oncologia — Porto

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVO As neoplasias malignas estão a aumentar em Angola. O Globocan estima que em Angola em 2018 podem ter ocorrido cerca de 15949 novos casos e que em 2040 ocorrerão 21 433 novos casos. O peso das doenças oncológicas nos doentes admitidos e tratados no hospital Principal das Forças Armadas Angolanas (HMPFAA), militares e familiares, já é significativo. Assim, é imperioso a organização de uma Unidade de Oncologia neste hospital. Um programa de formação de quadros com competências em Oncologia foi implementado.

MÉTODOS Foi realizado um curso de oncologia básica que envolveu internos de especialidade do último ano ou recém-especialistas de cirurgia, medicina interna e gastroenterologia do HMPFAA, no sentido de identificar os potenciais membros da Unidade de Oncologia. Os médicos seleccionados cumprirão um programa de pós-graduação em oncologia em hospitais de referência de Portugal. Após cumprirem com sucesso o programa, poderão adquirir a subespecialidade em oncologia (das especialidades de origem) após avaliação pelos colégios de especialidade, em Angola.

RESULTADOS Dos 32 participantes no curso de oncologia básica que ocorreu em 2018 foram seleccionados 15 médicos (7 de cirurgia geral, um gastroenterologista e 7 de medicina interna). Em estes médicos, em 2019 iniciaram um programa de formação de 24 meses. Foi previamente definido as actividades potenciais que cada um irá desenvolver na unidade de Oncologia do HMPFAA. Realizarão anualmente essas actividades com supervisão, em Angola, durante 15 dias. Os restantes membros da equipa multidisciplinar terão formação semelhante.

CONCLUSÕES O HMPFAA, com base num programa global que se inicia durante o período pré-graduado, em Angola, selecciona os profissionais de saúde que integrarão a Unidade de Oncologia e organiza a sua formação com base em "fellowships" em oncologia que ocorrem em Hospitais oncológicos de referência

Morais A

P079 | ORGANIZAÇÃO DA UNIDADE DE ONCOLOGIA CIRÚRGICA DO HOSPITAL CENTRAL DE MAPUTO

Morais A[1,3], Tulsidás S[1], Lara Santos L[2]
[1]Hospital Central de Maputo, [2]Instituto Português de Oncologia, [3]Universidade Eduardo Mondlane

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVO A taxa de incidência das doenças oncológicas está a aumentar em Moçambique pelo que é fundamental preparar recursos e adquirir competências para que os cuidados sejam de qualidade.

METODOLOGIA Durante 2016 e 2017 foram inquiridos os profissionais do Hospital Central de Maputo (HCM) envolvidos nos cuidados oncológicos. Os questionários e fontes de informação utilizados foram: Portuguese-speaking African Countries Assessment of Surgical Oncology Capacity Survey, PSAC-Surgery e The Cancer Units Assessment Checklist for low- or middle-income African countries, entrevistas, artigos, documentos e visitas. Estes dados foram avaliados no sentido de se conhecer a realidade estabelecer um programa de ação.

RESULTADOS Este estudo revelou que os tumores mais prevalentes no HCM com tratamento cirúrgico são: o cancro do esófago, mama e colorectal. O HCM tem os requisitos mínimos necessários para o tratamento de doenças oncológicas. Funciona desde 2016 consultas multidisciplinares para os tumores da mama e ginecológicos e mais recentemente do esófago. As dificuldades encontradas foram a inexistência de radioterapia e de cuidados paliativos. Verificou-se que é necessário melhorar a preparação em oncologia cirúrgica, a organização dos protocolos clínicos (multidisciplinares) e reforçar a qualidade do hospital dia oncológico e preparação dos citotóxicos. Há necessidade de organizar uma unidade de oncologia cirúrgica no HCM com meios, abordagem multidisciplinar, responsável pela formação nesta área e que audite os seus resultados. O conhecimento em oncologia deve ser melhorado em todos os profissionais envolvidos nos cuidados oncológicos pelo que a optimização das acções formação em oncologia em curso é fundamental.

CONCLUSÃO Impõe-se construir o currículum e iniciar o programa de formação em oncologia cirúrgica bem como o programa de oncológica básica nos cursos de saúde. É necessário melhorar a coordenação das intervenções formativas de oncologia, em curso e criar formalmente a subespecialidade de oncologia cirúrgica.

Lara Santos L

P080 | TRAINING ONCOLOGY PHARMACY UNIT STAFF IN AFRICAN LUSOPHONE COUNTRIES

Barrocas Bernardo D[1], Bessa F[1], Vieira Lopes L[2], Beorges Spencer H[3], Tulsidás S[4], **Lara Santos L**[1]
[1]Instituto Português de Oncologia, [2]Clínica Sagrada Esperança, [3]Hospital Agostinho Neto, [4]Hospital Central de Maputo

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE Cancer treatment, such as cytotoxic drugs (CTX), needs specific knowledge, training, facilities and resources. African Lusophone Countries (ALC), namely Angola, Mozambique, and Cape Verde decided to develop a specific program to build oncology pharmacies and train their staff. The aim is to report the experience of training in these 3 countries.

METHODS A program design was conducted by trainers of the Portuguese Institute of Oncology, Porto, Portugal, into 4 modules namely (theoretical, practical, local trainer's course and audit). In order to evaluate output and outcomes were administered pre and post train program assessment which rated the knowledge across the modules. Learning Methods included: face to face training, workshops, simulations, discussions and reflected-oriented activities. Training provided was tailored to the needs of the individuals after considerations as job functions, previous level of education and specific responsibilities relating to CTX and according to international guidelines. Initially, local trainees were identified with the collaboration of local health authorities and from local pharmacy team and also nurses that already were involved in CTX preparation. During the training, it was also identified the future local trainers and facilities were optimised.

RESULTS In Angola and Cape Verde the 3 first modules were already completed. In Angola and Cape Verde Oncology Pharmacy Units started up and compound CTX in accordance with best practice after this training. Mozambique: a new Pharmacy Unit is in construction and formation still ongoing.

CONCLUSIONS This methodology of training has been proven to be effective. The aims of the training program were perceived and implemented. Thus, investment in training staff, in local trainers, equipment and facilities are required. Continuous teaching and monitoring are essential.

Selemane C
P373 | CANCRO DO CÓLON E RECTO NO HOSPITAL CENTRAL DE MAPUTO O QUE SABEMOS?

Selemane C[1], Morais A[1,2], Tulsidás S[1], Morais G[1], Ismail M[1,2], Santos L[3]
[1]Hospital Central de Maputo, [2]Universidade Eduardo Mondlane, [3]Instituto Português de Oncologia

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO As neoplasias malignas estão a aumentar em Moçambique. Os registos oncológicos de base populacional de Maputo e o da Beira referem que a taxa de incidência bruta para o cancro colorectal (CCR) é de 1.9/100000 e 0.9/100000 habitantes, para ambos os géneros, respectivamente. Segundo o Globocan (2018) esta é de 1.8/100.000 habitantes correspondendo a cerca de 560 novos doentes por ano em Moçambique. Pretendemos perceber qual é o perfil dos doentes com CCR tratados Hospital Central de Maputo (HCM).

MÉTODOS Com base nos registos do Departamento de Cirurgia do HCM de janeiro de 2014 a dezembro de 2016 foram admitidos e tratados 22 doentes com cancro colorectal. Os dados demográficos e clínicos foram estudados.

RESULTADOS Os CCR maioritariamente são provenientes da região de Maputo (59,1%), 9 eram mulheres e 13 homens, a idade mediana foi de 47 anos (mínimo: 24; máximo: 83 anos). O adenocarcinoma foi o tipo histológico mais frequente (86,4%), destes 6 doentes tinham idade inferior a 50 anos. O tumor era localizado ao recto em 68,1% dos casos. A doença no momento de diagnóstico era avançada em 88,1% dos casos. O tratamento cirúrgico na maior parte dos casos foi paliativo (77,3%), foi realizado a resseção do tumor em 7 (31,7%) doentes (um curativo), apenas 18,2% foram submetidos a quimioterapia (5FU e irinotecano, 5FU e cisplatina ou o esquema Mayo Clinic). Dois anos após o diagnóstico apenas 6 (27,3%) doentes estavam vivos e apenas um sem doença.

CONCLUSÕES O CCR no HCM é diagnosticado tardiamente conferindo um prognóstico sombrio. São necessárias ações de diagnóstico precoce, é importante avaliar o risco de cancro familiar nos doentes jovens, caracterizar molecularmente estes tumores, introduzir a radioterapia no tratamento do cancro do recto e optimizar o tratamento sistémico.

Borges Spencer H
P374 | CARACTERÍSTICAS CLÍNICAS DO CANCRO DA MAMA EM CABO VERDE

Borges Spencer H[1], Costa V[1], Santiago L[1], Teixeira E[1], Santos L[2], Barbosa C[1]
[1]Hospital Agostinho Neto, [2]Instituto Português de Oncologia

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO A esperança média de vida em Cabo Verde para o género feminino é de 73,8 anos e 69,1 anos para o género masculino. Este facto e a adoção de comportamentos de risco são fatores que contribuem para o aumento dos casos de cancro em Cabo Verde. O Hospital Agostinho Neto trata a maioria dos casos de cancro de Cabo Verde. Pretende-se, estudar as características clínicas de doentes com Cancro da Mama (CM) admitidos neste hospital.

MÉTODOS Entre 2002 e 2016, os dados demográficos e clínicos de 258 casos de CM diagnosticados e tratados consecutivamente no Hospital Agostinho Neto foram estudados. A análise estatística descritiva foi posteriormente realizada.

RESULTADOS Neste estudo, os doentes com CM eram na sua maioria provenientes da região de São Tiago (77,9%), 254 eram mulheres e 4 homens, a idade mediana da amostra foi de 52 anos (mínimo: 28; máximo: 94 anos). O Carcinoma ductal invasor foi o tipo histológico mais frequente (86,4%). O estádio no momento de diagnóstico foi em 1,9% estádio 0, em 18,6% estádio I, 28,7% estádio II, 29,1% estádio III, 12% estádio IV e em 9,7% o estádio da doença era omisso. A Mastectomia radical modificada foi o tratamento cirúrgico mais utilizado (71.7%), 191 casos (74%) foram submetidos a quimioterapia, 133 casos (51,6%) hormonoterapia e 94 casos (36,4%) radioterapia. A mortalidade específica observada foi de 9,3%, estavam perdidos para o seguimento 5,2% dos casos.

CONCLUSÕES Em São Vicente (Cabo Verde), o diagnóstico de CM, ao contrário da maioria dos países africanos, é realizado, em grande medida, em estádios iniciais. Estes dados revelam a urgência em adotar estratégias que permitam o tratamento conservador do CM, nomeadamente a radioterapia e implementar o tratamento guiado pelo fenótipo dos tumores, após o estudo por imunohistoquímica.

Come J

P375 | CARACTERÍSTICAS CLÍNICAS DO CANCRO DA MAMA NO HOSPITAL CENTRAL DE MAPUTO

Come J[1], Correia Pinto R[3], Guambe E[1], Tulsidás S[1], Carrilho C[1], Lara Santos L[2]
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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO O aumento da esperança média de vida e a adoção de comportamentos de risco, associam-se a um incremento das doenças oncológicas em África. O cancro da mama (CM) constitui uma das maiores ameaças e tem um elevado rácio mortalidade/incidência neste continente. Com este estudo, pretende-se conhecer as características clínicas de doentes com CM, tratadas no Hospital Central de Maputo (HCM), Moçambique e auditar a qualidade dos dados clínicos.

MÉTODOS Entre fevereiro de 2014 e março de 2019, os dados demográficos e clínicos de 219 casos de CM diagnosticados no HCM e a taxa da informação clínica disponível, foram estudados. Todos os casos foram confirmados histologicamente.

RESULTADOS Dos casos estudados, 96.8% eram de raça negra (3.2% omissos) e maioritariamente naturais de Maputo. Relativamente ao género, 94.5% dos indivíduos correspondiam ao género feminino (n=207), e cerca de 1.8% eram do género masculino (n=4) (3.7% omissos). A idade mediana foi de 49 anos (mínimo: 18; máximo: 92; 0.5% omissos). A informação clínica refere a doença localmente avançada em 80 % dos doentes. Dos casos com informação precisa relativa ao estadiamento TNM, 11.9% apresentam tumores T4 (71.7% omissos), 14.2% N1 (77.2% omissos) e 11.0% M0 (88.1% omissos). A mastectomia radical modificada foi o tratamento cirúrgico mais realizado (71.2%) e 71 casos foram submetidos a quimioterapia (na sua maioria neoadjuvante, havia 67.6% de omissos). Não havia referencia a tratamentos de radioterapia. À data da análise dos dados, não foi reportado qualquer óbito.

CONCLUSÕES Neste estudo foi possível concluir que, em Maputo (Moçambique), o diagnóstico de CM é feito em idades consideravelmente jovens e já em estádio avançado. A cirurgia e a quimioterapia (na sua maioria neoadjuvante) são as terapêuticas oferecidas. Estes dados revelam a urgência em adotar estratégias de diagnóstico precoce do CM. É fundamental incluir a radioterapia no tratamento destes doentes e melhorar a qualidade do registo clínico.

Miguel F

P376 | CARACTERIZAÇÃO DOS PADRÕES HISTOLÓGICOS E MOLECULARES DO CANCRO DA MAMA EM LUANDA, ANGOLA: UMA ATUALIZAÇÃO

Miguel F[1], Vieira Lopes L[2], Sales Candido I[1], Correia Pinto R[5], Fuentes Pelaez A[1], Silva Lopes C[4], Lara Santos L[3]

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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO Atualmente, o cancro da mama (CM) é encarado como um dos mais frequentes tipos de cancro a nível mundial e as terapêuticas atuais aumentaram a sobrevivência. No continente africano, contudo, as taxas de incidência desta neoplasia são consideravelmente baixas, apesar de se destacar como uma das regiões mundiais com as mais elevadas taxas de mortalidade reportadas, devido, sobretudo, a um diagnóstico tardio e terapêuticas menos eficazes. Este estudo foi realizado com o objetivo de clarificar os padrões moleculares do CM em Luanda, Angola, pretendendo contribuir para o desenvolvimento de novas abordagens de diagnóstico e de terapêutica neste país.

MÉTODOS Foram estudados cuidadosamente os relatórios anatomopatológicos e imunohistoquímicos (IHQ) (recetor de estrogénio, RE; recetor de progesterona, RP; recetor de tirosina cinase HER2, HER2 e marcador de proliferação celular Ki-67) de 219 casos consecutivos de CM invasivos microscopicamente confirmados entre janeiro de 2011 e dezembro de 2018 e provenientes do Instituto Angolano Contra o Cancro e a Clínica Sagrada Esperança em Luanda, Angola.

RESULTADOS Dos 219 casos incluídos no presente estudo, 99.1% (n=217) eram do género feminino e 0.9% (n=2) do género masculino, com uma idade mínima de 24 anos e máxima de 94. Maioritariamente eram carcinomas NST (91,4%) e grau 2 (57.5%; n=126). Relativamente às características moleculares (com base na IHQ dos tumores analisados), 23.7% eram do subtipo Luminal A; 25.1% e 7.3% apresentavam características do subtipo Luminal B HER2 negativo e HER2 positivo, respetivamente; 14.2% eram HER2 positivo e 29.7% do subtipo Triplo Negativos (TN).

CONCLUSÕES Nesta amostra de Angola os tumores hormono-sensíveis são os mais frequentes, os subtipos moleculares mais incidentes são os subtipos Luminal B HER2 negativo e TN. A taxa de tumores HER2 é de 21,5%. O correto diagnóstico por IHQ poderá melhorar o prognóstico do CM, caso a terapêutica adequada estiver disponível para o tratamento.

Morais A

P377 | TRATAMENTO DO CANCRO DO ESÓFAGO LOCALMENTE AVANÇADO POTENCIALMENTE RESSECÁVEL NO HOSPITAL CENTRAL DE MAPUTO

Morais A[1,3], Cossa M[1], Tivane A[1], Tulsidás S[1], Lara Santos L[2]
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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO O cancro do esófago é o tumor digestivo mais frequente admitido e tratado no Hospital Central de Maputo em Moçambique, em ambos os géneros. Na sua maioria, estes doentes são admitidos em estádio avançado. Geralmente, nestes doentes, realiza-se gastrostomia de alimentação como tratamento paliativo. Nos casos localmente avançados potencialmente ressecáveis e de acordo com o estado geral do doente realiza-se tratamento neoadjuvante com quimioterapia (QT – cisplatina e 5 FU) e cirurgia. Nos casos ressecáveis sem condições para QT a cirurgia é realizada. Após recuperação nutricional e caso haja condições clínicas realiza-se quimioterapia pós-operatória. Neste estudo pretende-se avaliar os resultados deste protocolo terapêutico.

METODOLOGIA Durante Janeiro de 2016 a abril 2018 foram admitidos e tratados cirurgicamente 23 doentes segundo este protocolo no HCM. Foram estudadas as características demográficas, clínicas, patológicas e o tratamento realizado. Estudou-se a evolução destes doentes.

RESULTADO Na série estudada 12 (52.2%) doentes eram mulheres e 11 (47,8%) homens. A idade mediana era de 50 anos (mínimo 27 e máximo 74 anos). A maioria (65,2%) era natural de Maputo. A localização das neoplasias era no terço superior num 1 doente, em 11 no terço médio e 11 no terço inferior. Vinte e um casos eram espinocelulares. Todos dos doentes foram operados (Ivor Lewis). Nove doentes fizeram QT neoadjuvante (5 neoadjuvante e pós-operatória) e 3 QT pós-operatória. A sobrevivência mediana foi de 27 meses (mínimo 1 e máximo 45 meses). Os falecimentos (n=4) ocorreram na sua maioria no grupo tratado apenas com cirurgia.

CONCLUSÕES No nosso meio a resseção cirúrgica dos tumores localmente avançados do esófago, sempre que possível, deve ser realizada e associada à quimioterapia neoadjuvante. Nos doentes sem condições para quimioterapia mas com tumores ressecáveis devem ser operados associando-se, posteriormente e após a recuperação nutricional, quimioterapia pós-operatória.

Lara Santos L
PALOPS ONCOLOGY TRAINING: AN ACTION PROGRAM

Lara Santos L[1,2]
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MEETING ROOM 4

Friday
8 November 2019
10:30–12:00

INTRODUCTION A knowledgeable, skilled and well-trained workforce is critical to fighting against cancer with success. Improving competencies (knowledge and skills) in Lusophone African Countries (PALOPs) allows our organisation to remain adaptable and competitive, ultimately contributed to increased better outcomes. This can easily be achieved with little to no expense, other than extra time and organisation. Considering the benefits far outweigh the costs, improving health professionals' competencies is an opportunity for every PALOP country.

METHODS The PALOP School of Oncology is the steering committee of education and training in oncology of PALOPs and brings together the formal professional education, the informal practice training and helps several medical residencies with oncology courses, all of this included on a comprehensive program in order to provide growth and development of cancer education at the Portuguese-speaking African Countries. Recently in June, our school met where it approved the interventions for 2019 and 2020. These activities will be presented.

RESULTS This School of Oncology, allied with AORTIC's steering committee for education and training and other friendly oncology education institutions, strives to deliver the education of staff involved in cancer cares delivered to multi-professional and interdisciplinary approaches. Education offered by the school, internally in each PALOP country and externally (transversal), have of the highest standards, evidence-based, and includes each national educational standard. The school is multi-disciplinary; providing education and training opportunities for fundamental disciplines of cancer health professionals. Our program provides academically accredited education through partnerships between higher education and oncology institutions. Thus is committed to innovation in cancer education and to emphasise particular oncology and legal issues of each country participant. With the support of friendly institutions, we supported the training of staff to become leading cancer educators in Angola, Mozambique and Cape Verde.

CONCLUSION Our training programs stem from studies conducted in each country where unmet needs have been identified. We also take into account the legal profile of each country.

Lasebikan N

NEW HALL

P081 | 2D TO 3D RADIOTHERAPY MIGRATION IN NIGERIA: IMPACT OF A COLLABORATIVE TRAINING PROGRAMME BY AORTIC AND ARCON

Lasebikan N[1], Vanderpuye V[2], Igbinoba F[3], Biyi-Olutunde O[4], Balogun O[5], Jhingran A[6], Avery S[7]
[1]University of Nigeria Teaching Hospital, [2]National Center for Radiotherapy, [3]National Hospital,
[4]University of Port-Harcourt Teaching Hospital, [5]Weill Cornell Medicine Radiation Oncology,
[6]MD Anderson Cancer Center, [7]University of Pennsylvania

Tuesday
5 November 2019
18:15–20:00

As the world moves on to more sophisticated technology in treatment planning and radiation delivery, LMICs that seek to improve their service delivery must engage in human capacity development of all the key personnel involved in the delivery of safe and effective radiation services. The key work force include radiation oncologists, medical physicists and therapy Radiographers. Updating the knowledge base and skills set of individual specialties sequentially may compromise the expected competence in radiation delivery and ultimately increase radiation risk to the staff and patients as well as worsen disharmony amongst staff.

OBJECTIVE The purpose of this report is to describe the development, implementation and evaluation of a multidisciplinary, interactive and simulation enhanced course on migration from 2D to 3D Radiotherapy in Nigeria by AORTIC and ARCON.

METHODS The development of the course content was guided by a qualitative needs assessment survey of key opinion leaders in radiation Oncology, Medical physics and Therapy Radiographers. The course used a blended learning simulation enhanced training programme with breakout sessions of the specialties to allow for more in depth shared experiences with the resource persons. Participants completed a web-based course evaluation at the end of the course.

RESULTS A total of 66 participants attended the course however only 48 completed the web-based evaluation survey. 40% were attending radiation oncologist and 17% residents in training. 23% were medical physicists and 20% radiation therapy radiographers. 100% agreed course content was relevant and new while 96% agreed that the use of simulation was beneficial. 92% would strongly recommend the course to their colleagues. 97% agreed that the course on imaging for target volume and organ at risk determination was important. 90% strongly agree that the course would change their practice and 97% would want the course to be an annual event.

CONCLUSION We successfully completed a 2-day course involving Radiation oncologist Medical Physicists and therapy radiographers on 2D to 3D Radiotherapy migration. Effectiveness of training methods and materials used, relevance of training content, knowledge, attitude and skills gained by the participants were assessed and found to be satisfactory. Participants felt the multidisciplinary approach fostered mutual respect for each discipline and resolved to continue to work as a team for the good of the patient. Safety concerns were important to all specialties. The type of collaboration between AORTIC and ARCON was also well appreciated.

Lasebikan N

P220 | ADOPTING STANDARD OF CARE IN NIGERIAN CLINICAL PRACTICE: THE GOOD, THE BAD AND THE BARRIERS

Lasebikan N[1], Ibraheem A[2], Nnamani A[3], Onyeka T[3], Chigbo N[1], Iloanusi N[3], Ilo C[1]
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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Standard of care (SoC) is the level of care a reasonably competent skilled health care professional is expected to deliver. Given that there is no institutionalised SoC guideline for the management of common malignancies in Nigeria and the current practice is sub optimal, we developed a SoC guideline at University of Nigeria Teaching Hospital Enugu for breast cancer with the involvement of key opinion leaders, stakeholders and end users of the guideline using evidenced based practices from the developed world. Due to the limited resources in our environment, the developed guideline was adapted to be culturally acceptable, feasible and easily adhered to. The objective of this study is to assess the adoption of the guidelines in clinical practice by healthcare providers.

METHODS We conducted a pilot qualitative survey to assess the perception, feasibility and the consistent use of the designed standard of care guideline. Informal one on one discussion was conducted with clinical oncologist, surgical oncologist, palliative care physician and physiotherapist practicing directly impacted by this evidenced based interventional tool. We used inductive approach to analyse responses. We then transcribed, analysed and coded the data retrieved to better describe responses.

RESULTS Most common responses noted were difficulty in changing old habits, limited time, need for reminders, no training in its use, difficulty in getting informed consent, poor referral system, poor collaboration amongst healthcare workers, poor communication with patients and the use of guidelines not being part of our training from medical school.

CONCLUSIONS Healthcare workers continue to offer suboptimal care despite the provision of SoC guidelines. This study overstates the need of multi-level implementation strategy particularly in LMIC to guide the use of evidence-based practices with the goal of improving quality of care.

Lawal I

P011 | LESSONS FROM FOLLOW-UP SURVEY OF OUTREACH CERVICAL CANCER SCREENING PROGRAM IN LOW RESOURCE SETTINGS

Lawal I[1,3], Suleiman K[1,3], Shinkafi-Bagudu Z[2], Abubakar-Bello A[4]
[1]Niegrian Cancer Society, [2]MEDICAID Cancer Foundation, [3]Federal Medical Centre Birnin Kebbi, [4]Raise Foundation

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Outreach cervical cancer screening is one of many innovations to overcome challenges of cervical cancer screening in low resource settings. It may actually be the only opportunity some hard to reach communities in low resource settings will have to be screened. To better understand the performance of outreach cervical screening services within the context of low resources settings, we reviewed outcome of a cancer screening outreach program in Kebbi state.

METHODOLOGY The planning and execution of medical outreach program for free cancer screening in a low resource setting was review and a follow-up analysis of screen positive participants was conducted to determine their experiences and challenges in accessing post screening follow-up services.

RESULT A total of 231 women were screened for both breast and cervical cancer during the 3-day free screening period, out of which 21 (9%) women had positive screening for either cervical cancer, breast cancer or both. Amongst those with positive screening result, 16 (76%) women have positive cervical screening, 3(1%) of which have positive screening for both breast and cervical findings. Only 11 of 21 (52%) could be contacted for follow-up. Amongst those contacted only 1 (9%) had a follow-up diagnostic evaluation and another 1 (9%) was reported to have died of breast cancer. Majority 9/11(82%) did not have evaluation for their positive screen result hence the screening was effort in futility.

CONCLUSION Cervical cancer screening without adequate post screening plan for treatment of both pre-invasive and invasive lesions will not impact on the burden of the disease. Further study to understand barriers to accessing post screening services might help in better planning.

Letsatsi-Modise V

P125 | CANCER BURDEN IN BOTSWANA: ANALYSIS FROM A NATIONAL POPULATION-BASED CANCER REGISTRY

Letsatsi-Modise V[1], Mogorosakgomo L[1], Lemmenyane T[1], Tapela N[2,3]
[1]Ministry of Health and Wellness, [2]Botswana Harvard AIDS Institute Partnership, [3]University of Oxford

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cancer is a leading cause of morbidity and mortality globally. Commonest cancers worldwide may vary with sub-Saharan Africa due to degree of economic development and lifestyle/social factors. Botswana has a population-based cancer registry (CR) but the burden of cancer has not been adequately described. The cancer profile is also changing due to HIV. Hence it is important to describe the cancer burden in Botswana, to provide a basis for planning and implementation of cancer control plans.

METHODS The registry collects demographic information of all new diagnoses, tumour characteristics and treatment modalities initiated. We analyzed registry data of cases registered between 2012 and 2016 using CanReg5 software. Age-standardised incidence rates (ASR) per 100,000 population were calculated by sex and cancer type.

RESULTS Between 2012 and 2016, 6,185(excluding C44) cases were registered: 3,740(60.5%) females, 90(1.5%) were children <15 years old. On average, 1,237 new cases were registered annually. Cervical cancer (33.4%, ASR27.3) was the commonest cancer among females, followed by breast (18.4%, ASR15.7), Kaposi sarcoma (KS) (7.9%, ASR5.3), lymphomas (4.6%, ASR3.2) and uterine/corpus cancers (4%, ASR3.7). Among males, the commonest cancers were KS (18%, ASR8.7), mouth/pharynx (10.9%, ASR7.7), oesophagus (10.6%, ASR7.2), prostate (9.8%, ASR6.3) and lymphomas (9.7%, ASR5.2). The ASR for all cancer types was 60.8 in males, 81.3 in females. This is similar to GLOBOCAN 2018 estimates, which show common females cancers as cervical (ASR31.6), breast (ASR17.5), KS (ASR10.7) and lymphoma (ASR5.0); for males KS (ASR17.5), prostate (ASR13.7), oesophagus (ASR11.8) and mouth/pharynx (ASR7.4). Compared to Southern Africa (ASR241.1 males and 189 females), Botswana rates are relatively lower.

CONCLUSION The data on the commonest types and incidences of cancer in Botswana can be used to focus prevention, treatment and interventions in cancer control plans especially in low resource settings. The findings will contribute to the development of high-priority public health measures for the country.

Letsatsi-Modise V

P337 | ASSESSING POTENTIAL FOR DATA LINKAGE & ENHANCED CANCER OUTCOMES ASCERTAINMENT IN BOTSWANA: DATA QUALITY & UNIQUE NATIONAL IDENTIFICATION NUMBER DOCUMENTATION IN NATIONAL DEATH REGISTRY

Letsatsi-Modise V[1], Mogorosakgomo L[1], Dryden-Peterson S[2,3], Seloilwe E[4], Mashalla Y[4], Tapela N[2,5]

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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Quality cancer surveillance data are lacking in Africa, hindering assessment of trends over time and impact of interventions. Electronic data linkage of cancer registries with national death registries can potentially improve, efficiently, ascertainment of cancer endpoints and mortality estimation. In Botswana, where a unique national identification (ID) number system is in place, a national cancer registry (CR) has been in existence since 2003 but has low death data completeness. To assess feasibility of data linkage, we characterised the quality of death and ID number reporting in Botswana's national death registry (DR).

METHODS We conducted retrospective cross-sectional review of DR data involving deaths registered between January 1, 2006 and December 31, 2015. Of 113,056 records, no duplicates were identified and 176 (0.2%) non-Botswana citizens were excluded. We focused on four out of six components of the vital statistics performance index (Mikkelsen L et al, Lancet 2015). We conducted descriptive analyses using STATA v15.SE to compute frequencies and proportions.

RESULTS Of 112,880 records, 57,452(50.8%) were male, median age 54.0 years (IQR 34.0–76.0). Quality of reporting on age, sex and death was good, with no missing or inconsistent values for date of death, village of death, sex, marital status or education, and only 23 (0.02%) individuals with implausible age at death >115 years. Reporting on cause-specific detail was poor: information was in free text, and 24,876 (22.0%) records were either missing, "unknown" or not specified (e.g. "natural causes"). Majority of records (100,487, 89.0%) had documented and plausible ID numbers (2 with missing values, 12,391 values had incorrect number of digits).

CONCLUSIONS Our findings indicate that Botswana's DR has adequate quality data to permit efficient linkage with CR to better estimate cancer survival and mortality. Additional work is required to improve categorisation of cause of death information, and lessons are relevant to similar settings.

Lewis P

UTILISING CLOUD-BASED TECHNOLOGY FOR PEER REVIEW AND TRAINING IN RADIOTHERAPY – FACILITATING NATIONAL AND INTERNATIONAL COLLABORATION FOR QUALITY IMPROVEMENT

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MEETING ROOM 4

Friday
8 November 2019
12:45–13:45

OBJECTIVE Errors in contouring and planning contribute to inferior treatment outcomes for patients both in terms of disease control and toxicities. In radiotherapy centres with limited resources, clinician-led quality assurance for radiotherapy planning is essential given the ongoing transition from 2D to 3D to IMRT treatment planning. Challenges exist, however, in instituting formal peer review programmes within current workflows, given high demand for treatment, and shortage of specialised manpower. Our collaborative project aims to tackle this problem by introducing novel cloud-based technology to facilitate remote peer review in radiotherapy. We aim to evaluate the feasibility and effectiveness of using cloud-based technology for quality improvement in up to five radiotherapy centres in sub-Saharan Africa (n=4) and the UK (n=1).

METHODS Cloud-based software can be downloaded to any Windows computer and used by any radiotherapy centre to upload DICOM images and radiotherapy treatment plans to a virtual cloud. At the time of upload, the software de-identifies the dataset, with no patient details visible. A nominated centre is subsequently able to download and review the planning scans, including contours and DVHs, on their secure network. This process facilitates remote review, critique and feedback on radiotherapy plans, as part of a formal peer review process between two centres. Study methods include:

1. Feasibility studies in each collaborating centre to understand the specific requirements and uses for cloud technology in the clinical setting in each country
2. Retrospective audit of radiotherapy plans (3D/IMRT) for cervix, prostate, and head and neck cancers to evaluate training needs for each centre
3. Production of peer review workflow for radiotherapy plans within each centre, and in collaboration with other radiotherapy centres (national and international)
4. Assessment of cloud-based peer review on quality improvement.

RESULTS The cloud software has been successfully downloaded at Ocean Road Cancer Institute and Guy's Cancer Centre. There was a long lag time for software download at Komfo Anokye Hospital, Ghana and the Linear Accelerator remains inoperable currently. Further feasibility studies will be performed at Sweden Ghana Medical Centre, and potentially at Life Gaborone Private Hospital, Botswana. A retrospective audit of peer review is ongoing at Guy's Cancer Centre and has identified contouring as the main cause for recommendation of plan revision. Retrospective audits are due to commence in other collaborating centres.

CONCLUSIONS Evaluation continues for the use of cloud-based technology to further understand its role in peer review, quality improvement and training in radiotherapy.

Beddoe A
P338 | PRE-PLANNING FOR CANCER CENTRE IMPLEMENTATION IN LIBERIA

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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE In 2015, the sustainable development goals were adopted with Goal 3 specifically aimed at combatting non-communicable diseases (NCDs) globally.1 The burden of increasing incidence and mortality from cancer weighs heavily on low and middle-income countries where resources are least available to deal with this expanding crisis.4,5 On August 22nd 2018, the first National Cancer Policy in the history of Liberia was validated. The journey to completion of the policy and subsequent validation began in 2013; this abstract depicts the pre-planning activities taken from 2013 to 2017 to achieve this historic step.

METHODS Specifically, the pre-planning activities focused on assessing work force capacity, policy, and infrastructure in the cancer care continuum: prevention, screening, diagnosis, treatment and palliation. Further, the National Cancer Committee was formed which identified a radiation safety committee, reactivated the cancer registry and began to draft the National Cancer Control Policy. Pilot programs for both HPV vaccine and cervical cancer screening began.

RESULTS No policy regarding the cancer continuum existed. The assessment showed that prevention was limited in workforce capacity and infrastructure; screenings were limited to pilot programs with limited workforce capacity. Diagnosis was present with one fine needle aspiration lab in the country, headed by an expatriate doctor with limited workforce capacity and non-evidence-based treatment existed with extremely limited workforce and very little infrastructure. Palliation was offered informally with no narcotics available.

CONCLUSIONS Development and implementation of cancer programs in LMICs is a complex undertaking that should be guided by the countries' available resources and infrastructure. Knowing the cancer burden and defining and monitoring are key outputs of a cancer registry that can guide public health efforts in management of cancer. Input from the International Atomic Energy Agent was vital in setting realistic goals proposed through their integrated mission of Program Action for Cancer Therapy (imPACT).

Little M

THE RELATIONSHIP BETWEEN TOBACCO TAXES AND ILLICIT TOBACCO TRADE IN DEVELOPING COUNTRIES

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[1]University of Cape Town

MEETING ROOM 3

Friday
8 November 2019
12:45–13:45

OBJECTIVE Tobacco taxes are an effective tool to reduce smoking and improve public health, but the tobacco industry claims that increasing taxes increases illicit tobacco trade. From 2016–2019 we explored the relationship between tobacco taxes and illicit trade in four developing countries: South Africa, The Gambia, Mongolia and Georgia, to provide rigorous evidence on the relationship between illicit tobacco trade and tobacco taxes.

METHODS We used a mixed method approach to collect primary data in each country which included discarded pack collection and household surveys. In Mongolia, Georgia and South Africa baseline data were collected prior to the tax increase, and then the same areas or households revisited again after the tax increase to measure the associated impact on illicit trade. In the Gambia one household level survey was conducted, given the expected tax increase did not occur. Packs were examined for tax stamps and health warnings, and individuals were also asked to self-report on the prices they paid for their last pack. These prices were compared to the minimum possible price that would cover all tobacco taxes.

RESULTS In the Gambia, Mongolia and Georgia, despite historical increases to tobacco taxes in the years prior to our study, illicit tobacco trade was very small. In townships in South Africa, illicit tobacco trade represented a larger problem. No evidence of a statistically significant impact of an increase in illicit trade was found as a result of the tax increases in Mongolia or South Africa and we are awaiting final results for Georgia.

CONCLUSION Despite the tobacco industry refrain that tobacco taxes increase illicit trade, there is no evidence of this across a range of developing countries. As such, policymakers can continue to use tobacco taxes to reduce tobacco usage and improve public health, without concern of an associated increase in illicit activity.

Lombe D

P308 | COMPARATIVE BENEFIT OF INTERSTITIAL NEEDLES IN ADDITION TO INTRACAVITARY APPLICATORS IN THE TREATMENT OF CERVICAL CANCER

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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES Cervical cancer is the leading cause of cancer mortality in Low- and Middle-Income Countries (LMIC). Interstitial needles (IN) improve outcomes but the resources required has impeded uptake in endemic regions. We conducted a retrospective review of the utilisation of IN in the management of cervical cancer and simulated 2D standard Manchester loaded (ML) plans to explore the magnitude of benefit that interstitial needles provide

METHODS 72 brachytherapy plans of 18 patients who had undergone treatment with utilisation of IN were reviewed. ML plans prescribed to point A were generated to represent a 2D scenario, but the known HR-CTV was taken into consideration and its dosimetric outcomes were compared to those of the 3D based plans

RESULTS The median tumour volume was 23 cm3. IN was used in 82 % of the insertions. The median number of IN was 2 (range 0–6) with median percentage of IN dwell time 6.6 % (range 0.68–38.5). V100 was excellent 98.2% for ML 97.3% for 3D IN and 98.7% for 3D non-IN plans. The median HRCTV D90 was 8.5 Gy/fraction (cumulative EQD210 101.4 Gy) for ML plans and 8.0 Gy/fraction (cumulative EQD210 91.4 Gy) for 3D plans. The ML plans failed to meet the OAR goals except for the rectum. The median bladder, sigmoid and small bowel doses were 24% above the recommended constraint in the individual plans and 15% cumulative EQD2. A statistically significant relationship was found between the needles utilised, tumour volume ($p < 0.001$) and coverage ($p = 0.006$) but not delivered dose ($p < 0.068$).

CONCLUSION 2D brachytherapy can provide adequate dose coverage for most tumours but IN provide therapeutic ratio benefit. This justifies investment in resources for uptake of interstitial needles to increase access to optimal treatment of cervical cancer for women in LMIC.

Lounsbury D

P012 | PSYCHOMETRIC PROPERTIES OF AN INSTRUMENT TO ASSESS QUALITY OF LIFE IN A PAN-AFRICAN HOSPITAL-BASED STUDY OF MEN LIVING WITH PROSTATE CANCER

Makinde I[2], **Lounsbury D**[1], Irusen H[3], Andrews C[4], Adebiyi A[2], Agalliu I[1], MADCaP Consortium[4]
[1]Albert Einstein College of Medicine, [2]College of Medicine, [3]Stellenbosch University, [4]Dana-Farber Cancer Institute

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE To report psychometrics of an instrument to assess Quality of Life (QoL) in a Pan-African pilot study of men enrolled in an on-going study of prostate cancer (PrCa) [U01CA184374, Rebbeck, PI].

METHODS Participating centres (n=7) contacted a random sample of cases enrolled in the multi-centre parent study. The pilot instrument included 22 items selected from measures of QoL widely used in health research in the United States (i.e., SF-12; FACT-P, version 4). Consultation with African-based co-investigators informed initial item stems and structured response sets. Items assessed self-reported general health, physical and emotional barriers to daily activities, pain, anxiety, depression, fatigue, as well as known symptoms of PrCa. All data were collected via face-to-face interviews at participating centres. Item answers were based on respondents' recollection of the 4-week period preceding their interview date. Principal component analysis (PCA) was used to explore the factor structure of items comprising the pilot instrument. Internal consistency of items loading on each factor was assessed by Cronbach's Alpha and by content validity. Multi-item scale scores were computed by summing valid responses to items found to load on each identified factor. For the purpose of comparison, all scale scores were standardised (Mean=0, sd=1). Pearson correlations were computed to assess inferred associations among QoL scale scores and indicators of morbidity and self-reported general health.

RESULTS A total of N=65 cases were successfully contacted (by phone), consented, and interviewed. An initial PCA with all 22 QoL items indicated that 5 items were of bad quality, loading on multiple factors and/or showing poor internal consistency. After removal of these items, PCA was rerun and revealed four robust factors: Daily Activity (4 items; Alpha=.90); Urological Problems (3 items; Alpha=.74); Pain and Discomfort (3 items; Alpha=.77), and Mood (3 items; Alpha=.79). Total variance explained by the final PCA was 81%. While there were no statistically significant associations with indicators of morbidity (i.e., recent PSA level, stage, time since PrCa dx, age at PrCa dx), scale scores were related to self-reported general health in a pattern that supported expected patterns of convergent and divergent validity.

CONCLUSION Despite limited sample size, preliminary psychometrics of an instrument to assess QoL in a Pan-African pilot study of men living with PrCa are promising. Psychometrically problematic items (n=5 of 22) asked respondents about their 'comfort,' 'energy,' and 'stamina.' Future work will revisit the framing and utility of these dimensions of QoL in African cancer populations.

Lounsbury D

SIMULATION-SUPPORTED RESEARCH DESIGN: A SYSTEM DYNAMICS APPROACH TO PLANNING AND IMPLEMENTING A PAN-AFRICAN STUDY OF PROSTATE CANCER SURVIVAL

Lounsbury D[1], Adebiyi A[2], Joffe M[3], Agalliu I[1], MADCaP Consortium[4]

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MEETING ROOM 4

Wednesday
6 November 2019
14:40–16:30

OBJECTIVE System dynamics (SD) modeling is a robust systems science methodology still under-used in clinical and translational science. We demonstrate the utility of SD modeling by simulating a multi-centre cohort study of prostate cancer (PrCa) survival, using PrCa patients enrolled in an on-going PrCa genetics study in a Pan-African sample [U01CA184374, Rebbeck, PI; Men of African Descent Cancer of the Prostate Consortium (MADCaP)].

METHODS Working in collaboration with MADCaP investigators, we built a SD model to simulate a cohort study of African men presenting to hospital for PrCa diagnosis and treatment. Key parameters in our SD model included study enrolment start and end dates; case accrual and refusal rates; lost-to-follow up rates; Gleason score distribution ($<=6$, 7, 8–10); survival time by Gleason score; and PrCa-specific and other death proportion. The resultant SD model was a working set of algebraic and ordinary differential equations, depicted as a 'stock-and-flow' diagram. Dimensions (units) of stocks, flows, and auxiliary variables were checked. Major endpoints of interest (stocks) represented in the SD model included: (1) Enrolment, (2) PrCa-specific deaths, (3) non-PrCa deaths, and (4) cases lost-to-follow-up. Simulated output showed change-over-time (months) for variables in the model, displayed as time series vectors or as 'behaviour-over-time' graphs. With estimates of Gleason score distribution at enrolment and with survival time by Gleason score based upon available parent study data, we simulated likely enrollment trajectories and major endpoints, stratified by Gleason score.

RESULTS A 'base case' scenario was simulated that replicated case enrolment and known endpoints for the parent study, from inception to date (April 2019; N=1,918). Output over a period of 96 months (follow-up through 2024), which simulated design dynamics beyond the original study period and over the planned cohort study period, revealed distinctive patterns of mortality stratified by Gleason score. Gleason 8–10 cases were most prevalent but generated a similar proportion of surviving cases compared to cases with Gleason 7 by study end. Also, sensitivity analyses showed that if the lost-to-follow up rate in the simulated cohort study could be reduced from 8% to 5% per year, recruitment rates would meet sample size expectations, powered to an expected PrCa-specific morality rate of 72%.

CONCLUSION Planning and implementing complex study protocols in resource-limited settings is challenging. Simulation-supported research design can help researchers, study staff, and other stakeholders 'see' short-term and long-term pitfalls in participant outreach, recruitment, data collection, retention and other aspects of study management.

Lubwama M

MULTIDRUG RESISTANT BACTERIA ARE COMMON CAUSE OF NEUTROPENIC FEVER AND INCREASE MORTALITY AMONG PATIENTS WITH HEMATOLOGIC MALIGNANCIES IN UGANDA

Lubwama M[1], Adams S[2], Bwanga F[1], Kateete D[1], Nabiro B[3], Orem J[4], Phipps W[2,5]

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MEETING ROOM 3

Friday
8 November 2019
12:45–13:45

OBJECTIVE Cancer patients are at risk of developing severe infections. Empiric management of infections is complicated by emerging antimicrobial resistance and changing local epidemiology of organisms. We sought to determine predominant species causing bacteraemia, their antimicrobial resistance profiles, and their contribution to mortality among hematologic cancer patients with febrile neutropenia at the Uganda Cancer Institute.

METHODS Blood drawn from participants during a febrile neutropenic episode (FNE; fever $\geq 37.5°C$ and neutrophil count ≤ 1000 cells/μL) was cultured in the BACTEC 9120 blood culture system. Bacteria from positive cultures were identified biochemically. Antimicrobial susceptibility testing was performed with the disc diffusion method. Logistic regression and proportional hazards regression were applied to estimate associations between participant characteristics and FNE, bacteraemia, and mortality.

RESULTS Of 246 participants, 74 (30%) had an FNE. During the first FNE, 6/21 (29%) participants with acute lymphocytic leukaemia (ALL) developed bacteremia compared to 16/31 (52%) with acute myeloid leukaemia (AML) (OR 2.22 (0.65, 7.4)). AML patients were specifically at higher risk of Gram-negative bacteraemia (OR 4.59 (1.09, 19.3). Of the 41 aerobic bacteria isolated, 32 (78%) were Gram-negative, the most common being Klebsiella pneumoniae (11; 34%). Seventeen (53%) of the Gram-negative bacteria displayed the extended spectrum beta lactamase phenotype and 5 (16%) were resistant to carbapenems. One of the eight Enterococcus species was vancomycin resistant. Overall survival among patients with FNE was 54% at 30 days and 19% at 100 days. Bacteraemia was associated with higher mortality within 30 days (HR 2.1 (0.99, 4.45)) and 100 days (31% v 10%; HR 2.23 (1.09, 4.59)).

CONCLUSIONS Multidrug resistant bacteria are the main cause of bacteraemia and increase mortality in febrile neutropenic hematologic cancer patients at the UCI. Enhanced microbial surveillance, infection control and antimicrobial stewardship programs are needed to guide therapy and address emerging antimicrobial resistance at our institution.

Luís A

P378 | HIV INFECTION IN BREAST CANCER PATIENTS FROM MOZAMBIQUE: DIFFERENCES IN TREATMENT AND PROGNOSIS

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[1]Maputo Central Hospital, [2]Institut Jules Bordet

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE Data regarding breast cancer (BC) presentation, treatment, and prognosis is still scarce among women living with HIV (HIV+) in developing countries.

METHODS This prospective cohort included BC patients diagnosed at the Maputo Central Hospital, Mozambique, from Jan-2015 to Mar-2017. Data on demographics, co-morbidities, treatment, and survival were prospectively collected. Chi2 and t tests were used to compare categorical and continuous variables, respectively. Time-to-event outcomes were estimated using Kaplan-Meier methods. Survival estimates were compared using log-rank test and Cox proportional hazards models. All tests were two-tailed and results were considered significant if p-value was <.05.

RESULTS Among 205 pts included, 52 (25%) were HIV+. HIV+ patients were younger than HIV-patients (median age: 44.5 vs 51.0 years respectively, p=.002), and most had stage III/IV BC (81% vs 71%, p=.204). Among HIV+ patients, 90% had a CD4+ cells count >200/μL. HIV+ had a higher proportion of triple-negative BC (TNBC) compared to HIV- patients (37.5% vs 20.5%, p=.029). Among pts with early BC (EBC), HIV+ tended to receive a lower chemotherapy (CT) dose-intensity (DI) compared to HIV- patients (DI<85%: 69.4% vs 50.0%, p=.057). Median overall survival (OS) was 31.0 months in HIV+ and 34.0 months in HIV- pts (unadjusted hazard ratio [HR] 1.52, 95% confidence interval [CI] 0.92–2.51). In EBC pts, median disease-free survival was 27.0 months in HIV+ and 31.0 months in HIV- pts (HR 1.37, 95% CI 0.81–2.31).

CONCLUSIONS Our results show that in Mozambique the proportion of HIV+ women among BC patients is very high. They were diagnosed at a younger age and had a significantly higher proportion of TNBC compared to HIV- patients. Their survival was worse as compared to HIV- patients, although not statistically different. This highlights the need for better understanding BC biology in HIV+ patients and to provide effective cancer care to this underserved population.

Ly F

P013 | SQUAMOUS CELL CARCINOMA AND COSMETIC SKIN BLEACHING: STILL NEW CASES IN SENEGAL, ADVOCACY FOR EFFECTIVE PREVENTION

Ly F[1,2], Diatta B[3], Diop M[2], Diallo M[5], Deme A[1,4]

[1]University Cheikh Anta Diop of Dakar, [2]Dermatology Institut D'Hygiene Sociale de Dakar, [3]Dermatology Aristide Le Dantec Hospital, [4]University Gaston Berger de St Louis, [5]Institut Curie Aristide Le Dantec Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION The cosmetic use of bleaching products is common among women in sub-Saharan Africa, with a prevalence of 67% in certain urban areas. The main products used are highly potent corticosteroids such as clobetasol propionate and hydroquinone. The skin diseases associated with this practice are various and often severe, and the most commonly reported are cellulitis, dermatophyte infections, scabies, acne, eczema, irritant dermatitis and dyschromia including exogenous ochronosis. In 2002 H. Addo in Accra, Ghana reported the first case of squamous cell carcinoma (SCC) associated with skin bleaching in a 58 old year woman. In 2010, we reported the first cases of SCC associated with this practice in Dakar, Senegal. Since this date the number of registered cases continues to increase. In 2009, the International Agency for Research on Cancer (IARC), the WHO's specialised agency, classified exposure to UV-emitting tanning devices as carcinogenic to humans. African health professionals must mobilise for the recognition of depigmenting products as carcinogens for effective prevention.

METHODS A retrospective study of cases collected between August 2005 and April 2019 in three dermatological units in Senegal is carried out. We included all the patients who consulted for cutaneous squamous cell carcinoma associated with VCD. Socio-demographic, clinical, cosmetological, paraclinical and therapeutic data were collected.

RESULTS Seventeen patients aged 53.75 years on average were included. The hydroquinone and clobetasol propionate combination was used in 15 patients. The average duration of practice of VCD was 20.3 years and the consultation time after tumour discovery was 6.75 months. No pre-neoplastic dermatosis was observed in our patients. The clinical appearance of the tumour was variable: ulcero-budding (n = 9), ulcerated (n = 6) or nodular (n = 2). The lesions were localised: face (n = 1), neck (n = 9), back (n = 4), breast (n = 2) and leg (n = 1) on lichenoid lesions or exogenous ochronosis. The most common histopathological appearance was the infiltrating type; there were two cases of carcinoma in situ. The evolution was favourable in the majority of the patients after a surgical resection.

CONCLUSION From 2005 to 2019, seventeen cases of SCC associated with VCD are reported in Senegal. It is urgent to challenge the health authorities of sub-Saharan African states for appropriate measures to prevent this scourge. It's time to act!

WELCOME RECEPTION AND POSTER SESSION ONE

Lynch K

P082 | ULTRASOUND-GUIDED BIOPSY USAGE AND TRAINING AMONG RADIOLOGISTS IN NIGERIA

Lynch K[1], Patel K[1], Omisore A[2], Alatise O[2], Olayokuno L[2], Sutton E[1], Kingham P[1]
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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Breast cancer incidence is rising in Nigeria, and one major barrier to care is the lack of affordable and appropriate breast cancer diagnosis by ultrasound (US)-guided biopsy. The lack of comprehensive training programs limits the availability of US guided biopsies in LMICs. The emergence of mobile health (mHealth) US devices may offer a low-cost solution for training. The objective of this research was to understand ultrasound usage and training needs among radiologists in Nigeria, to inform the development of an mHealth-based US-guided biopsy training program.

METHODS Focus groups were conducted with radiologists who attended the 6th Annual African Research Group for Oncology Symposium. Focus groups were divided based on geographic area. Radiologists took part in a day long training with the mobile US device, after which they completed a voluntary technology usage and usability survey, adapted from existing instruments.

RESULTS Focus groups were conducted with radiologists working in the southwest (n=11) southeast (n=5) and northern (n=5) regions of Nigeria. Barriers to performing US-guided procedures included clinician training, equipment functionality, cost, and access to consumables. Participants expressed that a mobile US device would increase screening in rural sites, reducing patient need to travel. There was strong interest in a US-guided biopsy training program focused specifically on breast cancer. Across groups, individuals voiced a preference for a "train the trainer" learning format that combines in-person didactics with independent modules. Usability (n=16) surveys indicated that most participants found the mobile US device easy to learn after first use.

CONCLUSION Feedback from Nigerian radiologists identified a need and acceptability towards mHealth-based US-guided biopsies, which will be used to inform the development of a comprehensive training program.

Macaulay G
DRUG DEVELOPMENT IN AFRICA: OPPORTUNITIES AND CHALLENGES

Macaulay G[1]
[1]Cepheid Limited

PLENARY VENUE

Tuesday
5 November 2019
09:00–11:00

Although a lot of research is going on in the developed world in the field of oncology, Low and Middle Income (LMIC) countries especially in Africa continue to lag. This is partly due to the myths that Africa being a 'dark continent' does not have what it takes to do drug development like the developed countries. Now that it is well known that Science is on the increase, it is time to start looking to developing drugs in Africa or at least, start being part of global drug development that leads to Market Authorization and Approval (MAA).

The world is looking to the emerging markets, including Africa, in the development of new drugs and new targets due to high attrition rate and high competition for the same patient pool in the developed countries. So, what is drug development? Drug development simply is the journey from the Bench (laboratory) to the Patient. It involves putting tens of thousands of compounds through series of processes that end up with only one compound being licensed and getting to the Patient. It is a long and expensive process.

It takes 10–12 years and about \$2–3 billion dollars to develop one compound, and even more if we talk about the new drugs such as Immuno–oncology drugs.

There are four main stages to drug development governed by international guidelines such as GLP (Good Laboratory Practice) and GCP (Good Clinical Practice). GLP is to make sure preclinical activities are carried out to the high standard expected by the international community. Clinical trials that must be used for marketing authorization, must be conducted in line with the 13 principles of GCP. This gives the assurance that the rights, safety and well being of trial subjects are protected and the clinical data generated are credible.

There are opportunities for capacity building and partnership with pharmaceutical companies if we can prove that data generated will be credible and GCP compliant. These have been done successfully in the Vaccine and Infectious diseases arena as shown by GlaxoSmithKline (GSK) mission of investing 20% of its profit for capacity building. The huge population with advanced diseases such as Prostate cancer and Triple negative breast cancer (TNBC), with high prevalence in Africans and those with African descent are also advantages that can be used for the benefits of patients in Africa so that these patients can have access to cutting edge drug development. The main challenges are limited resources, corruption, cultural biases and practices. Many patients with advanced disease present late and illiteracy makes informed consent difficult in most countries in Africa. However, these challenges are not insurmountable.

Morais A

P309 | MOZAMBIQUE EXPERIENCE: "CHALLENGES IN THE IMPLEMENTATION OF A RADIOTHERAPY SERVICE WITH LINAC IN LOW-RESOURCE COUNTRIES"

Morais A[1], Tulsidas S[1], Lorenzonni C[2], Navarro S[3], Neto I[3], Lucas A[3], Pina P[3]
[1]Hospital Central de Maputo, [2]Ministerio de Saude, [3]Mercurius Health

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Cancer is a public health problem in Mozambique, according to WHO-Globocan 2018, Mozambique has an incidence of 25,631 new cases per year of cancer patients and a high mortality rate, due to the lack of infrastructure and resources for the cancer treatment. Radiotherapy is a treatment whose cost – benefit is the best compared to other therapies in cancer control. The IAEA considers cancer control in Africa a priority, supporting the opening of new radiotherapy centres, guaranteeing the establishment and installation of new treatment units and the guarantee of sustainability in countries with scarce resources. In 2006, Mozambique became a member of the IAEA, and then the Ministry of Health of Mozambique jointly with IAEA signed the Project MOZ6003, whose main objective was to establish the first radiotherapy service in country.

OBJECTIVE To describe, step by step, the implementation of the first Radiotherapy Service in Mozambique with LINAC.

MATERIAL AND METHODS Descriptive analysis of the Project MOZ6003, in view of the programs implemented and the step-by-step establishment of the first radiotherapy service.

CONCLUSION The project MOZ6003 for the establishment of the first Radiotherapy Service in Mozambique involved the creation of internal regulatory bodies, training of personnel, infrastructure works and quality control, carried out in approximately 5 years, with the optimization of local resources and the support of the IAEA. The project MOZ6003 is applicable, cost-effective and recommended in the context of developing countries in which the radiotherapy service is not available.

Mahande M

P127 | FACTORS ASSOCIATED WITH PERSISTENT CERVICAL PREMALIGNANT LESIONS AFTER TREATMENT AT KILIMANJARO CHRISTIAN MEDICAL CENTRE: ACROSS SECTIONAL STUDY

Mahande M[1]
[1]Kilimanjaro Christian Medical University College

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cervical premalignant lesions are precursors of cervical cancer. It is the fourth most common cancer in women. It is a major cause of deaths in low- and middle-income countries. Effectiveness of screening, rates of persistence following treatment and factors driving these in African have not been well documented. The current study aimed to examine the factors associated with persistent cervical premalignant lesions after treatment at Kilimanjaro Christian Medical Centre, Tanzania.

METHODS This was a hospital-based analytical cross-sectional study among women who participated in "screen and treat" program between 2008 and 2015 at the Kilimanjaro Christian Medical Centre. Multivariable logistic regression model was used to determine factors associated with the persistence of premalignant lesions.

RESULTS A total of 21, 253 women were screened. Of these, 902 (4.2%) were positive for premalignant lesions. Among those who were positive, 337 clients were treated with LEEP or cryotherapy and 235 returned after a year. About a quarter (24.7%) of the women who returned after one year were HIV-positive, 18.3% were HIV-negative while more than half (57.0%) had unknown HIV status. Persistence occurred in 19.6 % of the women who returned. The persistence was higher among HIV positive as compared to the negative counter parts (20.7 % vs. 18.6 %, respectively). Women who had big lesions had 4-fold (OR = 4.3, 95% CI: 1.1–16.2) higher odds of persistent cervical premalignant lesion as compared to those who had small lesions.

CONCLUSIONS We found a high proportion of persistent lesions one year after treatment. This was common among women with a big lesion. Our findings suggest a need for efforts to address this high rate of persistence including screening for Human Papilloma Virus. In addition, colposcopy and cytological grading before initiating the treatment is warranted.

Maillie L
CANGEO: AN OPEN SOURCE TOOL FOR MEASURING ACCESS TO CANCER CARE

Maillie L[1], Sisk M[2], Scanlan T[3], Masalu N[1], Schroeder K[1,4]
[1]Bugando Medical Centre, [2]University of Notre Dame, [3]Muhimbili National Hospital, [4]Duke University Medical Center

MEETING ROOM 3

Friday
8 November 2019
12:45–13:45

OBJECTIVE We explain the development and uses of CanGeo, a tool for measuring time to cancer care, accompanied by results from a three-phase decentralization case study in Tanzania.

METHODS CanGeo uses geospatial data for health facilities and administrative boundaries. Administrative boundaries are approximated as being located at the geometric centroid of the boundary and assigned a population based on census data. These centroids and health facilities are connected by shortest path to a multi-tiered transportation network in which roads are assigned travel speeds based on road level. Times between all administrative boundaries and health facilities are then calculated using Dijkstra's shortest path algorithm. A three-phase case study on cancer care decentralization in Tanzania is presented using population-weighted wards (n=3,614). In phase one, three treatment facilities were available nationally. Phase two, the current situation, includes seven facilities, and phase three, a projected decentralization using maximum coverage location problem (MCLP) criteria, includes 31 facilities.

RESULTS From the produced time matrix numerous calculations can be made including average population time to cancer care, percent population within a specified catchment time, and average population served per facility. In phase one, population-weighted average time to nearest cancer facility was 5.25 hours (median 4.75 hours). The average for phase two was 3.68 hours (median 3.55 hours) and would be 1.74 hours (median 1.56 hours) for phase three. The percent of population within four-hours of care increases from 41.5% to 57.8% to 95.7% for the three phases, respectively.

CONCLUSIONS CanGeo is an open source tool that can be used in low-resource settings to help quantify access to cancer care and develop optimized decentralization strategies. The tool also provides a standardized way of measuring patient time to care using patient addresses, which can help determine if time to care significantly impacts patient outcomes such as survival or abandonment.

Makamo N

LB020 | A FIVE-YEAR RETROSPECTIVE REVIEW OF DIFFUSE LARGE B CELL LYMPHOMA AT TYGERBERG HOSPITAL

Makamo N[1], Fazel F[1,2], Reuter H[1]
[1]Stellenbosch University, [2]Tygerberg Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES Non-Hodgkin lymphoma is a lymphoproliferative disorder that accounts for 4.1% of new cancer cases and 3.7% of cancer deaths in South Africa. The most common subtype in adults is Diffuse Large B-Cell Lymphoma (DLBCL). The aim of this study is to document the clinical characteristics, treatment responses and outcomes of DLBCL patients at Tygerberg Hospital. Secondary **OBJECTIVES** are to correlate HIV status with treatment response and survival.

METHODS A retrospective review of all DLBCL patients presenting to the Haematology unit at Tygerberg Hospital (January 2014-December 2018). Data was analysed using Stata version 15.

RESULTS There were 88 DLBCL patients in the study period with a female predominance of 1:0.8 and 47 (53%) females. Median age was 47 years (range 15–86). Forty-nine (59%) had B-symptoms, 65 (74%) had extranodal involvement, 24(28%) had bulky disease and 69(88%) had raised lactate dehydrogenase. Forty-six (53%) were HIV positive, 44(96%) were on combination Antiretroviral Therapy (cART), median CD4 count was 244 cells/μL (IQR 108–331) and 18(55%) had HIV viral load <20 copies/mL. HIV positive patients were younger than HIV negative patients (40 vs 54, p<0.000). Sixty-nine had molecular subtype, 32 (46%) had GCB and 37(54%) had ABC. Forty received CHOP(cyclophosphamide, doxorubicin, vincristine and prednisolone), of which 22 (58%) were HIV positive while 18 received R-CHOP(Rituximab-CHOP), of which 5(28%) were HIV positive. Forty-three (91%) developed severe neutropenia. Treatment response was assessed in 56 patients, 31 (55%) had Complete Remission (CR) and 14 (25%) had Progressive disease. At the end of the study, 35 (40%) were alive, 34 (39%) were dead and 19 (21) were lost to follow up. Overall survival (OS) was measured as time-to-death in months and the incidence rate was 3/100 person-months. The rate of death was higher in HIV positive patients compared to HIV negative patients (4/100 person-months vs 2/100 person-months, p value=0.01). The median OS was 28 months and 5 (6%) had a relapse.

CONCLUSION CR rates were better than patients in Johannesburg, which could be due to the lower HIV prevalence of DLBCL in this study (81% vs 53%). Studies have shown HIV positive patients to have similar survival to HIV negative patients due to high cART use, however in this study, despite high cART use, HIV positive patients had a higher incidence of death. Compared to resource-rich countries, DLBCL median OS is low at Tygerberg hospital. There is need for better management and possibly prospective studies looking at prognostic factors of DLBCL lymphoma to yield more significant results.

Makau-Barasa L

P379 | SUB-SAHARAN AFRICA INTERVIEWS WITH PROVIDERS IN SUB-SAHARAN AFRICAN ON THE COST-EFFECTIVENESS OF PROSTATE CANCER SCREENING

Makau-Barasa L[1,3], Rebbeck T[1], Manirakiza A[2]
[1]Dana- Farber Cancer Institute, [2]Rwanda Military Hospital, [3]West Chester University of Pennsylvania

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE This study seeks to determine whether a clear understanding of the costs and potential benefits of Prostate Cancer (CaP) screening in sub-Sahara Africa (SSA) will contribute to the development of evidence-based policies to reduce disparities and improve access to timely CaP screening and treatment policies for SSA. Study aims include: 1) identifying SSA's current CaP screening practices; 2) understanding how SSA's health systems and costs affect CaP screening and treatment services; 3) identifying factors and potential solutions for consideration in designing CaP screening programs in SSA.

METHODS A mixed method approach was used to collect data from key informants and secondary sources. Purposive sampling was used to recruit participants comprising of policy makers and clinicians providing CaP screening, diagnosis and treatment services in 12 SSA countries. Secondary data will be obtained from literature, databases and health facilities in participating countries.

RESULTS Preliminary analysis indicates 60% of participating countries have national guidelines for CaP screening and over 90% of the screening is performed by general practitioners and urologists. PSA tests (100%) and digital rectal exams (DRE) 80% are the most common screening methods. Men ages of 55–65 years comprise majority (95%) of those screened. Diagnostic procedures include prostate biopsies and DRE in over 80% of cases with a smaller (73%) use of transrectal ultrasonography. Screening costs range from 0$ to 40 US$. Surgical treatments cost between 465 US$ and 22,000 US$. Majority (48 %) of the payments are made out-of-pocket followed by public (26%) and private insurance (10%). Culturally relevant community-based education on CaP and evidence-based policies were reported among factors for consideration when developing national CaP screening guidelines.

CONCLUSION Preliminary results indicate variations in screening practices and costs across and within the participating SSA countries. Resource-appropriate CaP screening and treatment guidelines could reduce disparities in CaP practices in SSA.

Ayele W

P128 | COMMUNITY MEMBERS' PERCEPTIONS OF BREAST AWARENESS IN RURAL ETHIOPIA: THE EXPERIENCE IN BUTAJIRA TOWN

Ayele W[1,3], Addissie A[1], Andreas W[3], Jemal A[2], Taylor L[4], J.Kantelhardt E[3]
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NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION Low breast awareness and late presentation are continuing challenges to prevention and control of breast cancer in Ethiopia. Documenting community members' perception about the benefits and barriers to breast awareness is vital to achieve maximum benefit of the practice. Hence, this study explores community members' perception on breast awarenessinthe rural town of Butajira, Ethiopia

METHODS A community based descriptive study was conducted using a qualitative approach toexplore community members' perception of breast awareness in the rural town of Butajira. In-depth interviews and focus group discussions were held to explore women's perception towards breast self-awareness and a thematic analysis was performed to summarize key findings.

RESULTS The barriersto breast screening were lack of awareness about the practice in general and its benefits, and a negative general perception about the prognosis of breast cancer. We did not identify any taboo or cultural fears to participate in a breast screening program. Participants expressed a perception of breast cancer is the "deadliest" disease, and they had a positive view toward the benefit of breast cancer screening. They stated breast cancer screening would also help them know more about their general wellness and health. Participants expressed willingness to receive breast cancer care if diagnosed. Financial hardship was identified as a significant anticipated barrier to care, as transportation and treatment costs can be high.

CONCLUSION Lack of awareness of breast cancer screening are major barriers for women in rural Ethiopia. To enhance the effectiveness of screening programs, public awareness about the benefits of early diagnosis should be raised and efforts to decrease the financial burden of medical care and transportation should be investigated.

Manga S

P129 | FIVE YEAR FOLLOW-UP OF A COHORT OF WOMEN WITH PRECANCEROUS LESIONS OF THE CERVIX IN CAMEROON

Manga S[1], Shi L[2], Welty T[1], Demarco R[2], Aronowitz T[2]
[1]Cameroon Baptist Convention Health Services, [2]University of Massachusetts

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE Women treated for cervical precancer have up to 30% higher risk of developing cervical cancer than women in the general population. An essential part of cervical cancer secondary prevention is following-up of women who screen positive and/or are treated for precancerous lesions. The essence of follow-up is to identify and retreat any recurrent/persistent lesions. The objective of this study was to examine the predictors for follow-up among women with cervical precancer in Cameroon.

METHODS After receiving institutional review board approval, we conducted a retrospective chart review of 755 women in Cameroon who screened positive for cervical precancer in 2013. The women were followed-up for five years, through 2018.

RESULTS Of the 755 women, 422 (55.9%) received same-day treatment/biopsy or returned for treatment/biopsy. A total of 333(44.1%) were lost to follow-up immediately after their diagnosis. Of those who returned for treatment at a later date, the lesions of 160(37.9%) women were found to have regressed spontaneously. Of the 344 treated, 180(42.7%) had same-day treatment/biopsy and 164 (47.7%) were treated/biopsied after the initial visit. Women 30–39 were more likely to show-up for treatment than women less than 30 (OR=1.62, p=0.01, 95% CI 1.12–2.34) and women 40–49 were even more likely to show-up than women less than 30 (OR=2.19, p=0.001, 95% CI 1.38–3.49). For post-treatment follow-up, 205 (59.6%) had no follow-up, 93 (26.6%) had one follow-up, 46 (13.1%) had two or more follow-ups. Women aged 40–49 were 2 times more likely to be adherent than non-adherent to recommended follow-up compared to women aged less than 30 (RRR=2.96, p=0.037, 95% CI 1.07–8.23). Women aged 50 and above were 12 times more likely to adhere to post-treatment follow-up than women less than age 30 (OR=13.23, p=0.044, 95%CI 1.07–163.91).

CONCLUSION Age was the most statistically significant predictor to follow-up among women with cervical precancer in Cameroon.

Manguele N

P159 | LEUCEMIA MIELÓIDE CRÓNICA: EXPERIÊNCIA NA UNIDADE DE HEMATOLOGIA DO HCM

Manguele N[1]
[1]Maputo Central Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUÇÃO A Leucemia Mielóide Crónica (LMC) é uma doença mieloproliferativa que representa 15–20% de todos os casos de leucemia, com incidência anual de 1 a 1,5 casos por 100.000 indivíduos e prevalência de cerca de 1 por 17.000. É uma doença normalmente trifásica, incluindo uma fase crónica, acelerada e blástica. A LMC caracteriza-se pela presença do Cromossoma de Filadélfia, uma anomalía resultante de uma translocação equilibrada entre os cromossomas 9 e 22 (t(9;22) (q34;q11.2)).

OBJECTIVO Caracterizar uma população com diagnóstico de LMC.

MÉTODOS Estudo retrospectivo de 108 doentes. Diagnóstico de LMC entre Janeiro de 2012–Dezembro de 2018.

RESULTADOS Idade média no diagnóstico: 43 anos (17–80); 29% dos doentes ≥50 anos. 69% doentes do sexo masculino (75 doentes) e 31% doentes do sexo feminino (33 doentes). Valor leucocitário médio: 231.279/uL (30–658). Em 75% isolada e 25% associada a outros sindromes mieloproliferativos. Os doentes foram todos inicialmente tratados com Hidroxiureia ou Interferon. 10 doentes (9,2%) iniciaram Imatinib e 60% destes (6 doentes) descontinuaram o tratamento por falta do mesmo. Resposta hematológica completa e molecular maior foram observadas em 50% dos doentes em fase crónica, sendo que os restantes tiveram resposta parcial. Sem registo de progressão. 12,9% (14 doentes) evoluíram para fase de aceleração e 7,4% (8 doentes) evoluíram para crise blástica (6 mielóides e 2 linfóides). Nenhum dos 8 doentes em crise blástica que foram submetidos a quimioterapia intensiva sobreviveu.

A mortalidade geral foi de 11,1% (12 doentes). Isoladamente a idade, comorbidades e disponibilidade de Imatinib influenciaram na sobrevida geral.

CONCLUSÃO Grande parte dos doentes que iniciaram Imatinib atingiram resposta terapêutica. A evolução para crise blástica apresentou caracteristicas muito agressivas que levou a alta taxa de mortalidade mesmo antes da indução. (Sem conflitos de interesse a declarar)

PRESENTATION   138

LIGHTNING TALKS 4: BASIC SCIENCES | BIOLOGY | BIOMARKERS; CHEMOTHERAPY | SYSTEMIC THERAPY; SURGERY | SURGICAL ONCOLOGY

Maniragaba T

NEUTROPENIA IN BREAST CANCER PATIENTS ON CHEMOTHERAPY IN TANZANIA

Maniragaba T[1], Rubagumya F[2], Nyagabona S[1], Manirikiza A[2], Dharsee N[1]
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MEETING ROOM 3

**Thursday
7 November 2019
13:30–14:30**

BACKGROUND Chemotherapy-induced neutropenia (CIN) increases the risk for infection, sepsis, disruption of chemotherapy and poor prognosis. Knowledge of risk factors for CIN helps to determine patients at risk before starting chemotherapy. Breast cancer is the most common malignancy for which chemotherapy is given at Ocean Road Cancer institute (ORCI), however, the prevalence of CIN in these patients is not known.

OBJECTIVES To determine the prevalence and associated factors of CIN in breast cancer patients receiving chemotherapy at ORCI, Tanzania.

MATERIAL AND METHODS A retrospective cohort study of 100 breast cancer patients who have received chemotherapy from 12/1/2018 –1/31/2019 was conducted at ORCI. Demographics, nutrition status, haematological data, chemotherapy drugs, dose and number of cycles were collected before starting chemotherapy and for three consecutive cycles. SPSS version 20 was used for data analysis, relationship between clinical data and severe neutropenia was assessed.

RESULTS 100 patients were identified (median age of 41 years, range 26–81 years, all females). Advanced disease (clinical stage III and IV) was noted in 35 patients (45%). Low haemoglobin ($<7g/dl$) and hypoalbuminemia ($<3.5g/dl$) were seen in 70% and 62% respectively. Severe neutropenia (<500 cells /microliter) was noted in 35 ($45\%45\%$ p less than 0.005). All patients received curative low dose regimen due to poor performance status. A statistically significant association was noted between severe neutropenia and advanced stage of the disease, low haemoglobin, low albumin, Taxanes and cyclosphamide drugs. Neutropenia increased with the number of chemotherapy cycles 2 and 3.

CONCLUSION Severe CIN is common in breast cancer patients treated at ORCI. More attention should be given for patients with advanced breast cancer, patient with lower haemoglobin and hypoproteinaemia, and patient receiving taxanes and cyclophosphamide.

Manuel R

P178 | SEROPREVALÊNCIA DA INFECÇÃO PELO VÍRUS HERPES HUMANO 8 EM MOÇAMBIQUE: POTENCIAL PARA SARCOMA DE KAPOSI ENDÉMICO E EPIDÉMICO

Manuel R[1], de-Araújo A[2], Del Bianco R[3], Fortuna E[2], Bastos R[1]

[1]Hospital Central de Maputo, [2]Instituto Adolfo Lutz de São Paulo, [3]Centro de referência e tratamento do Sida de São Paulo

NEW HALL

Tuesday
5 November 2019
18:15–20:00

O vírus Herpes humano de tipo 8 (HHV-8) é o agente etiológico do Sarcoma de Kaposi. A seroprevalência global é desigual no mundo, e depende da região geográfica e da população analisada. Altas prevalências são reportadas na África Central e subsahariana, mas em Moçambique é desconhecida. Com a pandemia da Sida, foi observada uma explosão na incidência do Sarcoma de Kaposi, e este se tornou muito mais frequente em vários países africanos e em mulheres e crianças.

OBJECTIVOS Avaliar a seroprevalência da infecção HHV-8 em população assistida em centros de saúde, identificar associação entre HHV-8 e variáveis económicas, demográficas e clínicas e estabelecer Moçambique como outro país endémico.

METODOLOGIA Em 2008 foi examinada a seroprevalência do HHV-8 numa coorte de indivíduos na triagem em centros de saúde das 3 regiões de Moçambique, nomeadamente Norte (n=208), Centro (n=226) e Sul (n=318). A todos os indivíduos foi efectuado um inquérito para colheita de dados socioeconómicos, demográficos e clínicos, e seu sangue testado para os anticorpos HHV-8, usando o teste de imunofluorescência.

RESULTADOS A frequência média da seroprevalência do HHV-8 foi 21.4%, sem diferenças significativas entre as regiões Norte, Centro e Sul com 18.7%, 24.3% e 21.4% respectivamente (χ^2, 2.37; p = 0.305). As variáveis que foram significativamente associadas com a presença dos anticorpos HHV-8 foram o sexo, idade, nível de educação, número de irmãos e serologia para o HIV, mas estes diferiram entre as regiões. No Norte, com a excepção do número de irmãos, nenhuma associação entre a infecção HHV-8 e outras variáveis foi detectada (p>0.05). Na região Centro, a infecção pelo HHV-8 foi associada com sexo (p=0.010), o número do agregado familiar (p=0.031), e o local de atendimento (p=0.021), enquanto no Sul, associações com o número de irmãos (p=0.023), e serologia para o HIV (p=0.002), foram detectadas. Um aumento linear na média das frequências do HHV-8, de acordo com a idade, foi observado.

DISCUSSÃO Os resultados obtidos apontam Moçambique como outro país endémico para a infecção HHV-8 em África e por causa da epidemia do HIV, o acesso contínuo ao tratamento antirretroviral é fundamental para prevenir ou travar a explosão de casos de Sarcoma de Kaposi.

QUALITY OF CANCER REGISTRY STATUS IN AFRICA

Dieu-donné M
EXPERIENCES AND CHALLENGES WITH CANCER REGISTRATION IN COTONOU (BENIN)

Dieu-donné M[1], Parkin M[2], Gnangnon F, Akele-Akpo MT[1], Egue MD[1]
[1]Cancer Registry of Cotonou, [2]African Cancer Registry Network

NEW HALL

Wednesday
6 November 2019
07:15–08:20

INTRODUCTION Cancer is currently a major public health problems in Africa. 1.2 million new cases are predicted to occur in the continent by 2030 with more than 970 000 deaths if adequate preventive measures are not taken quickly. This study is based on incidence data from Cotonou (Benin) Cancer Registry and aims to describe the impact of cancers in the city of Cotonou over a period of three years (2014–2016).

METHODS The cancer Registry of Cotonou is a population based cancer registry (PBCR) it covers a population of 679 012 habitants (353 140 women and 325 872 men). The cases search is done by active methods. The methods follow those developed in the operating procedure manual of the African Network of Cancer Registries (AFCRN).

RESULTS Over a period of three years (2014 to 2016), a total of 1086 cancer cases were recorded including 608 cases (56.0%) in women, which corresponds to an age standardized incidence rate (ASR) of 92,6 per 100 000 person-years and 478 cases (44.0%) in men or ASR 54.5100 000 person-years. Breast and cervical cancer accounted for 49.2% of all cancers in women. Breast cancer (ASR: 25.0 percent 000 people-year) was more common than cervical cancer (ASR) 19.0 percent 000 person-years) and occurred among women at a relatively young age. Prostate cancer is the first dominant cancer in males (ASR 13.5 percent 000 person -years). Cancers of the digestive tract was also common in both sexes, mainly primary cancer of the liver.

CONCLUSION Cancer remains a common pathology in Cotonou. The most common types of cancer are: breast cancer, cervical cancer, prostate cancer and primary liver cancer.

Dieu-donné M

P339 | CANCER INCIDENCE IN COTONOU (BENIN), 2014–2016: FIRST RESULTS FROM THE CANCER REGISTRY OF COTONOU

Dieu-donné M[1], Parkin M[2], Gnangnon F, Akele-Akpo MT[1], Egue MD[1]
[1]Cancer Registry of Cotonou, [2]African Cancer Registry Network

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE Incidence data from the population cancer registry of Cotonou (Benin) for the three-year period 2014–2016 are presented.

METHODS The population covered by the registry is comprised of all individuals normally resident in the city of Cotonou (Benin). The mean average population for the period 2014–2016 was 719,712 (378,745 women and 340,967 men). Incidence rates are calculated based on all malignant invasive cancers. The data are processed and analysed using the software R. The frequency and incidence tables are produced using the CanReg 5 software, and Excel 2010. The results are presented as the number of cases recorded, crude, age standardised (ASR) and cumulative (0–74) incidence rates for a period of 3 years (2014–2016). Age standardisation was carried out by the direct method, using the world standard population.

RESULTS 1086 cancer cases were recorded, 608 cases (56.0%) in women (corresponding to an age standardized incidence rate (ASR) of 78.4 per 100,000) and 478 cases (44.0%) in men (ASR 91.8 per 100,000). Breast and cervical cancer accounted for 49.2% of all cancers in women. Breast cancer (ASR 22.6 per 100,000) was more common than cervical cancer (ASR 14.9 per 100,000) and the mean age of cases was lower. The incidence of prostate cancer (one quarter of all cancers in men), 30.5 per 100,000, was similar to that in other West African registries. Cancers of the liver and digestive tract were also relatively common in both sexes.

CONCLUSION These are the first data on cancer incidence in Benin and will be invaluable for the development and evaluation of the National Cancer Control plan.

Maree L

P380 | ENHANCING CERVICAL CANCER SCREENING INVOLVING MEN: AN INTERVENTION STUDY

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[1]University of the Witwatersrand

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To develop and pilot test an educational program involving men to enhance cervical cancer screening.

METHOD An intervention design was used. The primary outcome was presenting for cervical cancer screening and the secondary outcome knowledge. Knowledge was assessed using an one-group post-test approach. One hundred and twenty (n=120) men, 18 years and older, living in a semi-rural community, attended the educational program; referral notes were handed to all. A telephone survey was conducted two months after attending the program to assess participants' knowledge; 20 (n=20) were lost to follow up. Pap smears were available to women at a primary health clinic on specific days for three months; interviews were also conducted.

RESULTS Only 30 women, primarily between the ages 30 and 39 years (56.7%; n = 17), presented for screening, 60% (n=18) indicated they were "sent by their husbands." Most (56.7%; n=17) had not been screened before; the main reason not being aware of the Pap smear (30%; n=9). The men were primarily younger than 40 (48.3%; n =58) and from the Zulu cultural group (27.5%; n = 33). Most (82.5%; n = 99) agreed that cervical cancer can be prevented whilst 75.8% (n=91) agreed that women could be checked for the disease at a local primary health clinic. Only 55% (n=66) indicated they had informed their female partners or family members about cervical cancer. Various reasons were mentioned why these conversations did not take place of which cultural taboos were the most common (50%; n=17).

CONCLUSION The study had mixed results. Although the men's knowledge of cervical cancer improved compared to a pre-intervention survey conducted in the same setting, the small percentage of men who informed their female partners and family members, as well as the small number of women who presented for screening, were disappointing. This questions the success of the educational intervention. Cultural taboos and ways to overcome this barrier should be investigated before refining the educational intervention.

Martei Y

CHEMOTHERAPY DELIVERY CAPABILITIES IN SUB-SAHARAN AFRICA: CURRENT REALITIES AND FUTURE CONSIDERATIONS

Martei Y[1]
[1]University of Pennsylvania

MEETING ROOM 3

Tuesday
5 November 2019
14:30–16:30

The quality and adequacy of cancer therapy delivery remains a critical but understudied area in sub-Saharan Africa (SSA). Recent editions of the World Health Organization (WHO) Model List of Essential Medicines (EML) have been expanded to include more cancer medicines, however there is limited data demonstrating the capability and adequacy of how these medicines are being utilized to deliver cancer care in SSA. Implementation of cancer care delivery models are needed to ensure the administration of standard guideline recommended therapy, coupled with close toxicity monitoring, documentation and assessment of treatment outcomes. In several countries in SSA, health system, provider and patient factors result in deviation from standard therapy including prolonged delays in initiating and continuing therapy, frequent switches, premature discontinuation of therapy, poorly-managed adverse events and incomplete treatment documentation. National governments need to play a central role in cancer control including provisions for high quality and safe chemotherapy delivery for cancer patients. Foremost, cancer medicines on the WHO EML should be prioritized on national EMLs and covered as part of universal health coverage plans. Furthermore, national resource-specific treatment guidelines should be developed to ensure care is based on population needs and linked to chemotherapy available on national EMLs. This would also help in forecasting medicines to provide a sustainable supply of cancer medicines. Finally, the critical shortage of medical and/or clinical oncologists necessitates newer models of chemotherapy delivery by non-oncologists in SSA. Trials of novel chemotherapy delivery models should be conducted within an implementation science framework, including rigorous audit and evaluation of outcomes to identify gaps and successes that lead to better patient care and opportunities to replicate best practices in other countries in the SSA region. This knowledge is needed to ensure that resources invested in chemotherapy delivery translate to improved patient outcomes for cancer patients in SSA.

Martin J
DIAGNOSIS OF KAPOSI SARCOMA: NOW AND THE FUTURE

Martin J[1], Semeere A[2], Freeman E[3], Laker-Oketta M[2], Maurer T[1], Erickson D[4], Cesarman E[4]
[1]University of California, [2]Infectious Diseases Institute, [3]Harvard University, [4]Cornell University

PLENARY VENUE

**Thursday
7 November 2019
13:30–14:30**

In resource-rich settings, Kaposi sarcoma (KS) is a diagnosis first suspected on clinical grounds and confirmed by biopsy and pathologic interpretation. Microscopically, KS features varying combinations of spindle cells, inflammatory infiltrate, and abnormal vasculature. In resource-limited settings, such as sub-Saharan Africa, the paucity of pathology capacity often results in KS being diagnosed on clinical visualization alone. This is despite research showing that the positive predictive value of clinical suspicion of KS is estimated to be only 80%. Even where pathology is available in sub-Saharan Africa, turnaround time is often slow, and accuracy, compared to experienced dermatopathologists in the U.S., is sub-optimal. In one study, concordance was only 69%. The ramifications of this current imperfect approach to KS diagnosis in Africa are manifold: some KS diagnoses are missed, sometimes with fatal consequences, and other instances of non-KS are falsely called KS and sometimes subsequently treated with potentially toxic chemotherapy. To ameliorate this, our group has hypothesized that the central dogma of KS – that a herpesvirus, Kaposi's sarcoma-associated herpesvirus, is a necessary but not sufficient cause of KS – can be taken advantage to allow for diagnosis of KS simply based on quantification of KSHV DNA in suspicious skin or mucosal lesions. Working in Uganda, we have performed biopsies on over 500 patients referred to our skin biopsy service because of, at least some, suspicion of KS by their health care providers. In addition to pathologic evaluation in Africa, all biopsies received at least two pathologic interpretations in the U.S. In testing done in carefully controlled U.S. laboratories, quantification of lesional KSHV DNA content by either polymerase chain reaction (PCR) or loop-mediated isothermal amplification (LAMP), performed in a novel portable device called TINY, revealed very good diagnostic performance compared to gold standard U.S.-derived pathology determinations. For PCR, sensitivity for KS diagnosis was 96% and specificity 94%; for LAMP in TINY, sensitivity was 93% and specificity 94%. The next step in this work is validation of the performance of KSHV DNA quantification for KS diagnosis in real-world conditions in Africa. If the initial inferences hold, it is possible to envision a future in which KS is diagnosed within a few hours with a point-of-care device.

Matambo J

P083 | EXPLANATORY MODELS OF CERVICAL CANCER AMONG WOMEN ACCESSING CERVICAL CANCER DISEASE CARE AND TREATMENT SERVICES IN LUSAKA, ZAMBIA

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[1]Centre for Infectious Disease Research in Zambia, [2]University of Zambia

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Greater than 80% of the world's annual deaths from cervical cancer occur in sub-Saharan African countries, like Zambia, where cervical cancer is the most common malignancy and the leading cause of cancer-related deaths. Despite the disease being highly preventable with screening and early detection, no more than 5% of women in these settings are screened. Lay perspectives of cervical cancer among women may influence proactive seeking cervical cancer prevention services. Our study sought to understand explanatory models of cervical cancer among women being treated at the Cancer Diseases Hospital (CDH) in Lusaka.

METHOD Using qualitative case study design, data was collected using in-depth personal interviews from 20 women aged between 25 to 59 years and were recorded and transcribed. Data was analysed using thematic analysis.

RESULTS Women had different perceptions of disease aetiology. Some believed it was witchcraft or from sexual intercourse with uncircumcised men. A few lacked knowledge of the cause. As a result, women sought treatment from differently, ranging from prayers, traditional healers and witchdoctors, to conventional treatment. Some of the preventive measure's women believed were; avoiding prostitution, good nutrition and male circumcision, while the majority lacked knowledge on cervical cancer prevention. Of the 20 women interviewed, only two (10%) had ever screened for cervical cancer.

CONCLUSION Women's lay perspectives and constructions of the disease differ significantly among themselves and with clinicians. This study provided broad insights on the constructions of cervical cancer among women with the disease and revealed that women do not have correct information on the basics of cervical cancer hence will not seek screening and early detection of cervical cancer thereby leading to disease progression, costly management and poor treatment outcomes.

Mathew C

GENOME-WIDE ASSOCIATION STUDIES OF OESOPHAGEAL SQUAMOUS CELL CARCINOMA IN AFRICA

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[1]University of the Witwatersrand, [2]South African Medical Research Council, [3]National Cancer Registry

MEETING ROOM 1

**Wednesday
6 November 2019
14:40–16:30**

Genome-wide association studies (GWAS) have been very successful in identifying genetic variants and genes that are associated with the risk of many cancers, including oesophageal cancer. However most such studies were conducted in European or Asian populations. Oesophageal squamous cell carcinoma (OSCC) is by far the most common form of oesophageal cancer in Africa, but genetic data in African populations has been limited to the study of selected variants in modest sample sizes. GWAS has been used to identify multiple risk loci for OSCC in non-African populations, especially in China. We have now carried out a GWAS for OSCC in the Black population of South Africa to search for genetic risk factors in an indigenous African population. We genotyped 1550 OSCC cases and 2793 controls on the H3 Africa GWAS array, which contains 2.3 million single nucleotide polymorphisms (SNPs) which are enriched for African genomic content. After quality control, 1.66 million SNPs were used for imputation to a total of 14.8 million SNPs using the Wellcome Sanger Institute imputation pipeline and the African Genome reference panel. Imputed SNPs were tested for association with OSCC using a linear mixed model test (GEMMA), with correction for population structure using Principal Component Analysis (PLINK) and relatedness (GEMMA). Genetic variants in several genomic regions were associated with OSCC ($P<10^{-6}$), some of which may be African-specific. Several regions previously associated with OSCC in other populations were not associated in the South African Black population. A GWAS is ongoing in cases and controls from East Africa, which will permit future replication studies and meta-analysis in larger African sample sizes.

Mbarusha I

LB016 | FACTORS ASSOCIATED WITH PATIENTS DELAY IN PRESENTING TO A CANCER TREATMENT CENTER IN A LOW INCOME COUNTRY

Mbarusha I[1], Kafeero J[1,2], Mulumba Y[1], Phipps W[2], Orem J[1]
[1]Uganda Cancer Institute, [2]Hutchinson Center Cancer Alliance

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE Whereas early detection and treatment of cancer yields good prognosis, a delay in provision of these services increases the proportion of advanced disease in cancer patients impacting on outcomes and quality of life.(1) We aimed at studying the patient timelines and elements related to obtaining referral to a cancer treatment centre after the first related symptom to promote early diagnosis strategies for secondary cancer prevention.

METHODS We conducted a retrospective chart review of adult patients admitted to UCI in 2017 with any of the 4 cancer diagnoses of interest; cervix, breast, esophagus and prostate. Four key points in care were considered; First symptom, referral to UCI enrollment into UCI and initiation of treatment. Data was abstracted in relation to the patients' path to care. Time between the key points was calculated from dates recorded in the files. T test and Anova were used to establish relationships for this objective.

RESULTS In total, 1017 cancer patients were enrolled of which 521 had complete data for the above objective. Cancers were represented as; cervix (41.7%), breast (25.9%), esophagus (20.3%) and prostate (12.1%). Seventy two percent were females, 47% of participants aged 40–59 years. More than half of the participants 60.4% presented with advanced cancer (stage III or IV). Median time taken from first symptom to referral varied per cancer; patients with esophageal cancer presented earliest (3.9 months) with range of 1.93–6.56 while those with prostate cancer took more than a year (13.3 months) and range of 5.46–28.26 months. Overall in bivariate analysis, patients aged 60+ and those HIV negative took more time to get referred.(P=.015 and P= .009). Patient's marital status, gender and residence area had no association with delay.

CONCLUSION There is significant delay from first identifiable symptom to getting referred to a cancer treatment centre. The general population including health care providers in primary health facilities need awareness about early signs and symptoms of cancer to facilitate early diagnosis and referral.

1. Dwivedi AK, Dwivedi SN, Deo S, Shukla R, Pandey A, Dwivedi DK. An epidemiological study on delay in treatment initiation of cancer patients. Health (Irvine Calif) [Internet]. 2012;4(2):66–79. Available from: http://www.scirp.org/journal/doi.aspx?DOI=10.4236/health.2012.42012

CANCER IN FRANCOPHONE AFRICA: INNOVATION, STRATEGIES, IMPLEMENTATION

Mbassi A

ETUDE COMPARATIVE BIOPSIE DIGITO-GUIDEE VERSUS ECHO-GUIDEE DANS LE DIAGNOSTIC DU CANCER DE LA PROSTATE A L'HOPITAL CENTRAL DE YAOUNDE ET AU CENTRE MEDICAL LA CATHEDRALE

Mbassi A[1]
[1]Hôpital Central de Yaoundé

MEETING ROOM 3

Thursday
7 November 2019
08:30–10:00

INTRODUCTION L'adénocarcinome prostatique est le cancer le plus fréquent chez l'homme de plus de 50 ans. L'objectif de ce travail a été de comparer la ponction biopsique prostatique écho-guidée et celle digito-guidée.

MÉTHODOLOGIE Il s'agissait d'une étude transversale et rétrospective allant du 1er Janvier 2011 au 31 Décembre 2017, réalisée à l'Hôpital Central de Yaoundé et au Centre Médical la Cathédrale. Elle portait sur 106 dossiers de patients dont 55 ayant bénéficié d'une ponction biopsique prostatique écho-guidée et 51 d'une ponction biopsique digito-guidée.

RÉSULTATS L'âge moyen était de 66,02 ans. Il y a eu 68 cas de cancer confirmé dans les deux méthodes avec 61,8% et 38,3% respectivement en échoguidé et en digito-guidé. Six patients ayant bénéficié d'une ponction biopsique écho-guidée ont présenté une hémorragie contre 11 en digito-guidé ; et 3,6% ont présenté une infection post-biopsique en échoguidé contre 11,8% en digito-guidé.

CONCLUSION La ponction biopsique écho-guidée permet d'avoir des carottes biopsiques purement prostatiques et entraîne moins de complications.

Mbengei P

NON-PROFIT-INDUSTRY PARTNERSHIPS: A MODEL FOR SUSTAINABLE CAPACITY BUILDING IN CANCER CARE IN LOW- AND MIDDLE-INCOME COUNTRIES

Mbengei P[1,3], Chite A[1,2,3,4]
[1]Ampath Oncology Institute, [2]Indiana University, [3]Moi Teaching and Referral Hospital, [4]Moi University

MEETING ROOM 4

**Wednesday
6 November 2019
14:40–16:30**

OBJECTIVE One of the main challenges facing health care organisations in Africa is insufficient trained personnel. To bridge this gap, Ampath Oncology Institute adopted an innovative non-profit–private-public sector partnership model.

METHODS Ampath Oncology Institute is a non-profit organisation based in Eldoret, Kenya a low- and middle-income country (LMIC) in East Africa. Since 2017, employee volunteer fellows from Takeda pharmaceutical's oncology research and development (R&D) team have worked alongside counterparts at Ampath. Depending on locally identified unmet needs, volunteers including biostatisticians, clinical scientists, outcomes researchers and project managers have provided support for Ampath projects. Takeda's R&D fellows share their knowledge and technical expertise to help build capacity in areas including research, data management, education, survivorship care, and pharmacovigilance. This knowledge sharing is provided virtually and on-site and the partnership operates under project-specific governance structures led by AMPATH with goals, objectives and deliverables.

RESULTS The collaboration has provided mentorship for numerous employees at Ampath in areas including data collection, clinical research and support of a retrospective and prospective lymphoma standard of care study. There has also been the establishment of a patient navigation program to improve patient coordination and strengthen survivorship care through support groups for oncology patients. Educational materials on lymphomas for health care providers and community volunteers have been developed to increase disease awareness. Pharmacovigilance has also been improved through the development of standard operating procedures and standardization of medication forms. Employees from both organisations have enhanced their leadership skills and expanded their global health perspectives.

CONCLUSION The creation of an integrated project teams which involve multiple stakeholders is an effective strategy to address gaps in cancer health care and ensure sustainable support in low middle-income countries.

Mbengei P

P014 | UNMET NEEDS FOR CANCER SURVIVORS: A KENYAN TERTIARY INSTITUTE BASED SURVEY

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[1]Ampath Oncology Institute, [2]Moi Teaching and Referral Hospital, [3]Moi University, [4]Indiana University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cancer management post treatment is usually limited to medical surveillance for relapse. This survey set out to determine if there are needs unique to cancer survivors apart from medical follow-up.

METHODS A semi-structured questionnaire was administered by a health care worker to 21 participants. 10 were parents/guardians of minors and 11 were cancer survivors. The criteria were patients who completed treatment and are in remission or on long term hormonal or targeted therapy. The questionnaire collected information on biodata, socioeconomic status, shelter and basic needs, livestock and crop farming options and challenges post treatment.

RESULTS Majority of the survivors were either unemployed or casual labourers. The employed were low income earners with a monthly salary range of 40 to 320 US dollars. The cost of treatment resulted in many of them selling assets (livestock, land) and bankrupting their businesses. It also led to loss of employment for guardians/parents who dedicated their time to caring for their unwell children. Unmet needs post treatment was reported in financial, psychosocial and continuity of care areas. Financial challenges included lack of start-up capital for businesses, unemployment, and lack of rent, school fees and groceries. Psychosocial challenges included discrimination by society, depression over body changes secondary to chemotherapy/surgery, loss of social support post treatment, infertility and poor performance of children in school. In terms of continuity of care, some did not attend clinic because of lack of funds for transportation, depletion of their insurance and ignorance about the need for regular check-up.

CONCLUSION Cancer management should include survivorship care which not only focuses on treatment but also addresses financial and psychosocial challenges to facilitate re-integration into society.

Mbengei P

P240 | PAEDIATRIC BURKITT'S LYMPHOMA: SURVIVAL ANALYSIS AT A LARGE TERTIARY INSTITUTE IN KENYA

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[1]Ampath Oncology Institute, [2]Moi Teaching And Referral Hospital, [3]Moi University, [4]Indiana University

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE The outcome of paediatric Burkitt's Lymphoma is better in developed countries. Limited data on survival of Burkitt's Lymphoma is available in Africa. This study aims to address the gap.

METHODS A retrospective observational study using medical records including all patients under the age of 15 years diagnosed with Non-Hodgkin's lymphoma (NHL) at AMPATH/Moi Teaching and Referral Hospital (MTRH) between January 2016 and June 2018. Data on socio-demographic and clinical information as well as treatment outcomes was abstracted using structured questionnaires. Demographic variables and chief complaints were analysed descriptively. The Kaplan-Meier method was used to estimate overall survival.

RESULTS A total of 70 patients were enrolled. Of these, 77.1% (54) had Burkitt's Lymphoma. The Burkitt's patients were predominantly male (61.1%) with advanced disease (stage III, IV; 76%). Majority (75.9%) were HIV negative. The commonest lesion site was the abdomen (38.9%) followed by the jaw (29.6%).There was no association between late stage presentation and age or gender. Overall, 23 patients died, 16 of them Burkitt's subtype. During a median follow up of 7.3months, Kaplan-Meier 1-year overall survival rate was 59.7% for Burkitt's subtype. Only early stage (I&II) presentation tended to have a positive correlation with overall survival.

CONCLUSION Patients at AMPATH/MTRH treated for Burkitt's Lymphoma were affected at a young age with male predominance, late stage presentation, abdominal and jaw masses and majority were HIV negative. Since early stage presentation is a positive indicator of better outcome, it is imperative to enhance early diagnosis through creation of community awareness of symptoms and training of health care providers on lymphoma care.

Mbunya S

P221 | TELEMEDICINE: BRIDGING THE GAP BETWEEN RURAL AND URBAN ONCOLOGIC HEALTHCARE IN KENYA

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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES

1. To highlight the difficulties in rural oncologic healthcare including cost implications for patients and oncology programs.
2. To highlight the advantages on the use of Telemedicine in improving oncologic healthcare.
3. To highlight the cost analysis and show the advantages of setting up a telemedicine centre towards bridging the gaps in between rural and urban oncologic healthcare.

METHODS

1. Analysis on travel to clinic appointments vs wages of patients with burden.
2. Analysis of Distance of rural clinic to urban clinic in Eldoret, Kenya, vs time travel to the clinics.
3. Analysis of cost operations vs cost personnel (Oncologist)
4. Costs for the operations budget for the seventeen rural outreach clinics include the costs of hardware, solar networking setup, and internet
5. Analysis of cost of setting up a telemedicine centre vs the maintenance cost vs sustainability comparisons.

RESULTS Estimated costs for the operations budget for the seventeen rural outreach clinics include the costs of hardware, solar networking setup, and internet at a total $3,400/week. This will decrease after the first year to $1,700 for maintenance costs of equipment. Personnel consists of 1 local person to support the system and will be a weekly cost of $1,870. Lost time for physicians due to road travel totals ~100 hours weekly. Estimated salaries for an oncologist at $30/hour leads to a cost of $3,007/week in lost productivity. It should be noted that lodging and per diem expenses are not included in the estimated expenses that total $6,114/week. Shown in the chart below is the savings that will occur by doing telemedicine at the rural clinics in an ideal 48 workable week situation. The savings of $528k is a clear evidence that this is financially feasible solely based on travel savings over 5 years. For numerous reasons, it is expected that telemedicine would only be used every other week at the clinics. For this reason, the actual savings is around $264k and still makes a strong argument for this being the right move.

CONCLUSION In conclusion, telemedicine is a viable and necessary resource for developing oncologic care in rural Kenya. Telemedicine helps maximize the limited physician resources and allows them to reach a larger audience without tying up their time in lengthy commutes. Last, telemedicine should assist patients to overcome the barriers of cost and time that limit their treatment.

Mburu A

P381 | THE GROWING TERATOMA SYNDROME: BROADENING THE DIAGNOSTIC CRITERIA OF AN INCREASINGLY COMMON RARE CLINICAL ENTITY

Mburu A[1], Elly B[1], Itsura P[1]
[1]Moi University

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

INTRODUCTION Female ovarian growing teratoma syndrome is a rare clinical entity seen in young women during or after chemotherapy for malignant ovarian germ cell tumours. Due to the limited absolute comprehension of its pathophysiology, the phenomenon has undergone a metamorphosis in its definition and diagnostic criteria. In low resource setting, it presents a diagnostic challenge due to limited access to advanced investigations such as immunohistochemistry and positron emission tomography. Though benign, it is rapidly growing with propensity to mortality if not resected in good time and can be confused with a metastatic recurrence resulting in unnecessary chemotherapy and/or radiotherapy to which it exhibits limited response to. It is therefore imperative to have the correct diagnosis in order to implement timely management.

CASE PRESENTATION We present a case of a 26-year-old who presented with an increasing abdominal mass following completion of chemotherapy for an ovarian endodermal sinus tumour. The patient's tumour markers (alpha feto-protein and beta human chorionic gonadotropin) had significantly reduced following her first surgery and remained undetectably low during chemotherapy and in the seven months of follow-up. Intra-operatively, the mass originated from her remaining ovary, completely obliterating it and encroaching into the uterus with mass effect on the bladder, rectum and sigmoid colon. Complete surgical resection of the mass was done and thorough exploration for additional masses. Biopsy of the resected mass revealed a mucinous cystadenoma.

DISCUSSION Based on Logothetis criteria, growing teratoma syndrome is diagnosed following discovery of new masses following appropriate chemotherapy for nondysgerminomatous germ cell tumours, normalizing serum tumour markers and mature teratoma in the resected specimen. Surgical management is the only option if carried out before the tumour becomes extensive and therefore inoperable. In this case, the resected mass was benign but not a mature teratoma begging the question of whether this was an incidental finding or requires exploration as a potential for the phenomenon that is the growing teratoma syndrome (GTS). Literature review shows cases of benign growths following appropriate management of germ cell tumours thus there's a possibility that GTS should not be limited only to mature teratoma.

CONCLUSION There is need to explore GTS to include other benign components in the resected tissues and this could mean changing the name of the phenomenon as well.

McComb K

P015 | FINAL RESULTS OF A CANCER CIVIL SOCIETY CAPACITY DEVELOPMENT PROGRAM IN KENYA AND UGANDA

McComb K[1], Chybisov A[1], Umar S[2], Bernacca Z[3], Kaur M[3], Kilonzo J[4], Gitonga D[4]
[1]American Cancer Society, [2]American Cancer Society, [3]Mabadiliko Changemakers, [4]Steps Ahead Consulting

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The American Cancer Society (ACS) launched the Strengthening Organizations for a United Response to the Cancer Epidemic (SOURCE) Program in Kenya and Uganda in 2016 as part of its global civil society organisations (CSOs) strengthening initiative. ACS has supported 51 cancer organisations, in two cohorts, for effective cancer control work. The program has three components: 1) assessment, 2) training, and 3) technical assistance, all of which address seven domains of organisational strengthening:

1. Governance (GOV)
2. Operations and Administration (OPA)
3. Human Resources Management (HRM)
4. Financial Management (FMA)
5. Financial Sustainability (FSU)
6. Program Management (PME)
7. External Relations and Partnerships (ERP)

The present evaluation determines the extent to which the ACS support has changed the capacity of CSOs in these seven domains.

METHODS This evaluation uses longitudinal data from organisational assessments taken at multiple time points to track the progress of each participant CSO. We calculated changes in assessment scores over the period at domain, organisation, and cohort levels, using the statistical package Stata. Appropriate statistical tests were conducted to see if changes in assessment scores across domains and other disaggregation levels are statistically significant.

RESULTS Cohort 1 organisations made great improvements between the first two years in the domains where they initially scored lower (OPA, HRM, FMA, and FSU). Although the initial assessment scores of Cohort 2 organisations were low on all seven domains, they made significant improvements in the second assessment, especially, in the GOV, OPA, and ERP domains. These findings are consistent with those of the qualitative data.

CONCLUSIONS This evaluation demonstrates the importance of building the capacity of a community of cancer CSOs with tailored and layered training, technical assistance, and practicum over time, informed by periodic assessment results. Such an inter-linked approach allows for sustained learning that should translate into better operations, which are a necessary for stronger programs and contribute to a more robust cancer response.

McComb K

P016 | ORGANISATIONAL ATTRIBUTES AS DETERMINANTS OF SUCCESS IN A CANCER CIVIL SOCIETY CAPACITY DEVELOPMENT PROGRAM IN KENYA AND UGANDA

McComb K[1], Chybisov A[1], Umar S[2], Bernacca Z[3], Kaur M[3], Atyenda E[4], Gitonga D[4]

[1]American Cancer Society, [2]American Cancer Society, [3]Mabadiliko Changemakers, [4]Steps Ahead Consulting

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The American Cancer Society (ACS) launched the Strengthening Organizations for a United Response to the Cancer Epidemic (SOURCE) Program in Kenya and Uganda in 2016 as part of its global civil society organisations (CSOs) strengthening initiative. ACS has supported 51 cancer organisations for their cancer control work. The present evaluation documents the results of the three years of organisational strengthening training, supportive technical assistance, and funded practicum projects. Specifically, this evaluation attempts to determine the factors that affect successful participation of CSOs in the SOURCE Program, and how learnings throughout the participation cycle affected the CSOs' capacity for effective cancer control work.

METHODS The evaluation uses longitudinal data from organisational assessments taken at four different time points to track the progress of each participant CSO. We conducted regression analysis to identify organisational level determinants of better assessment scores using organisations' profile data. Finally, we used the qualitative data to explain our quantitative findings.

RESULTS As expected, an organisation's age and having received organisational strengthening training and/or technical assistance in the past is positively associated with higher assessment scores at the initial assessment. But the difference fades over time - the younger CSOs caught up with older ones on assessment scores as the program progressed. The qualitative data shows that as the CSOs refresh/learn new skills, improve the use of evidence for program decisions, and establish systems and practices, their programs become more effective.

CONCLUSIONS While selecting organisations for organisational strengthening programs, multiple factors should be considered. Age of an organisation is important, but it is not the sole determinant of success. Additionally, the SOURCE Program has contributed to strengthening CSOs and preparing them for more robust and coordinated cancer control work. However, a lot more remains to be done to defeat cancer in low- and middle-income countries.

Menya D

DENTAL FLUOROSIS, ORAL HEALTH AND RISK OF OESOPHAGEAL CANCER IN KENYA: A CASE-CONTROL STUDY

Menya D[1], Maina S[2], Kibosia C[1], Kigen N[2], Oduor M[3], McCormack V[4]
[1]Moi University, [2]Academic Model Providing Access to Healthcare, [3]University of Eldoret, [4]International Agency for Research on Cancer

MEETING ROOM 3

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVE To examine the association of oral health with risk of oesophageal cancer (EC) in Kenya.
METHODS A case-control study was conducted at the Moi Teaching and Referral Hospital, in Eldoret, western Kenya from August 2013 to September 2014 (pilot phase) and October 2015 to April 2018 (main study). Cases were patients aged $\geq$ 18 years who presented to the endoscopy unit with progressive dysphagia and suspicion of EC. Cases were histologically confirmed oesophageal squamous cell carcinoma ESCC (90%) and endoscopically visualized the tumour (10%). Age and gender frequency-matched controls were recruited from hospital visitors and hospital patients. Trained interviewers conducted face-to-face interviews, collected blood, saliva, urine samples and conducted oral examinations. Using logistic regression models for ESCC, odds ratios (ORs) and their 95% confidence intervals (CI) were estimated associated with oral hygiene, DMFT, leukoplakia, dental fluorosis and water source. Stratified analyses by interviewer and control type were conducted to investigate potential biases and by participant characteristics to examine effect modifiers. Statistical analyses were conducted in Stata version 14.0 and mapping in QGIS.
RESULTS Four hundred and thirty (430) oesophageal cancer cases 18 and 440 controls were enrolled. Tooth brushing once a week or less and using miswaki rather than a toothbrush was more common in cases than controls. Cases had higher DMFT (number of decayed + missing + filled teeth) scores (median 7 vs 3). The odds ratio (OR, 95% confidence interval), adjusted for known lifestyle risk factors, was 6.4 (3.4 to 12.1) for a DMFT score of $\geq$ 8 vs 0. Moderate or severe dental fluorosis, i.e. an irreversible enamel hypo-mineralization due to early-life fluoride intakes, had an OR of 14.7 (7.6 to 28.6). Oral leukoplakia was almost always (90%) present with moderate/severe fluorosis, compared to 16% with no fluorosis. Compared to having piped water, ORs were 1.6 (0.9 to 3.0) for well and 3.0 (1.6 to 5.5) for spring/river sources.
CONCLUSION Dental fluorosis, which occurs in this setting due to early-life fluoride intakes naturally occurring in ground/surface water, poor modern oral hygiene and tooth decay are strong markers of oesophageal cancer risk in Kenya. Poor oral health in combination with high-altitude susceptibility to hydro-geologically influenced exposures may underlie the steep spatial gradients in incidence rates and the striking co-location of East Africa's oesophageal cancer corridor with the African rift valley.

WELCOME RECEPTION AND POSTER SESSION ONE

Mezger N

P131 | NON-HODGKIN LYMPHOMA IN SUB-SAHARAN AFRICA: A MULTINATIONAL STUDY ON DIAGNOSTICS

Mezger N[1], Seraphin T[1], Hansen R[2], Péko J[3], Liu B[4], **Kantelhardt E**[1], Wickenhauser C[1]
[1]Martin-Luther-University Halle-Wittenberg, [2]Namibian National Cancer Registry, [3]Registre des Cancers de Brazzaville, [4]African Cancer Registry Network

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Non-Hodgkin Lymphoma (NHL) are the sixth most common cancer type in sub-Saharan Africa (SSA). We aimed to assess NHL subtypes, stage and further diagnostics.

METHODS Our observational study included eleven population-based cancer registries in Benin, Congo-Brazzaville, Ethiopia, Ivory Coast, Kenya, Mali, Mozambique, Namibia, Uganda and Zimbabwe. In each registry, a random sample of 8 to 86 cases diagnosed between 2011 and 2014 was selected and recorded data was amended assessing hospital records.

RESULTS A total of 529 patients were included. Additional information was traced for 60.3%. Of all NHL diagnoses, 69.0% were confirmed histopathologically, another 16.6% cytologically. For 50.1% NHL subtype was known. The largest share of NHL subtypes known was observed in Windhoek, Namibia (94.1%), the smallest in Eldoret, Kenya (16.1%). Diffuse Large B-Cell Lymphoma, Chronic Lymphatic Leukaemia and Burkitts Lymphoma were the three most common NHL subtypes (24%, 9%, 3% respectively). HIV was found positive for 18.7% and 15.8% received anti-retroviral treatment whereas HIV status remained unknown for 66.5%. Stage at diagnosis was advanced for 25.4% and unknown for 63.3%.

CONCLUSIONS We found NHL subtype, stage and HIV status unknown for the majority of patients. However, according to NCCN guidelines harmonized for SSA, knowledge about these three categories is crucial. Investments in comprehensive diagnostics facilities and introduction of a standard immunohistochemistry panel may increase precision of NHL diagnostics and hence the possibility of effective treatment.

Schmeler K

P382 | IMPROVING THE TRAINING QUALITY OF THE LOW-COST UNIVERSAL CERVICAL CANCER INSTRUCTIONAL APPARATUS

Schmeler K[2], Mia W[1], Mnewa M[1]
[1]Rice360, [2]MD Anderson Cancer Center

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The Low-cost Universal Cervical Cancer Instructional Apparatus (LUCIA) is a low-cost simulation model that provides hands-on training in cervical cancer prevention, including Visual Inspection with Acetic Acid (VIA), Pap and HPV sample collection, colposcopy, endocervical curettage (ECC), cervical biopsy, cryotherapy, and Loop Electrosurgical Excision Procedure (LEEP). Training is accomplished using different 3D-printed and gel cervical models. Our goal was to improve the LUCIA model to make training more realistic and increase its robustness for travel and repetitive use.

METHODS The 3D-printed cervical models were improved by adding more realistic details using the skills of professional Malawian artists. These details included adding a squamocolumnar junction, more realistic vessels on vascular models, more notable changes on the cancer models, and developing two new models simulating benign polyps. The pelvic model was redesigned by introducing detachable components for easy assembly, travel, and storage. A new cervical model holder was also developed so one single holder could be used for all cervical models (3D-printed and gel models). The new design includes a large earthing contact to effectively ground the gel models used during LEEP training. Cervical model placement within the vaginal canal is now better controlled using an adjustable rod.

RESULTS LUCIA has continued to be used in cervical cancer prevention education courses globally. Courses were held in the United States (Austin, Texas; Brownsville, Texas; Houston, Texas), Port of Spain, Trinidad and Maputo, Mozambique. User feedback was collected, with an average score of 4.2/5 on usefulness, 4.4/5 for skill improvement, and 4.2/5 for ability to easily self-evaluate, similar to previous evaluations.

CONCLUSION Currently 50 kits are being mass produced at the Polytechnic Malawi, which will be distributed globally to generate further feedback for continued improvement. With proper coordination between gynaecologists and design engineers, LUCIA can continue to provide important training in cervical cancer prevention at low-cost.

Middleton D

ENVIRONMENTAL GEOCHEMISTRY AND CANCER: A GLOBAL HEALTH PROBLEM WITH PARTICULAR RELEVANCE IN AFRICA

Middleton D[1], Mc^Cormack V[1], Watts M[2], Schüz J[1]
[1]International Agency for Research on Cancer, [2]Centre for Environmental Geochemistry

MEETING ROOM 1

Wednesday
6 November 2019
07:15–08:20

Primary prevention is key to reducing the global cancer burden, a disease responsible for ~ 9.6 million deaths per year and predicted to rise beyond 13 million by 2030. The role of environmental geochemistry – i.e. the chemical composition of Earth's surface - in the aetiology of many cancers (and other non-communicable diseases) should not be understated. This is particularly pertinent in low- and middle-income countries, where 70% of global cancer deaths occur and reliance on local geochemistry for drinking water and subsistence crops is widespread. This talk will outline the value of effective collaborations between Environmental Geochemists and Cancer Epidemiologists and how multidisciplinary approaches might yield significant breakthroughs in unravelling the aetiology of cancers in many settings. A case study of the extraordinarily high incidence rates of oesophageal cancer in the East African Rift Valley, which may have a geochemical contribution, will be discussed.

Miller B
BIG CAT 2.0: THE FUTURE

Miller B[1], Rebbeck T[2]
[1]American Association For Cancer Research, [2]Harvard University, Dana Farber Cancer Institute

MEETING ROOM 1

Friday
8 November 2019
08:30–10:00

This session will provide an overview of the coordinated development, structures and procedures for the Beginning Investigator Grant for Catalytic Research Grants (BIG CAT) program for 2020 and beyond. BIG CAT 2.0 is a cooperative endeavor of AACR, AORTIC, Harvard Medical School, and Takeda Oncology which share the goal of sustaining the grants program to assure its lasting value and prestige within the world of science and beyond. Session content will include details of the program's scope, the administration of applications and awards, and the provision of associated awardee training, mentorship, and network development.

Minas T

DISTINCT CIRCULATING IMMUNO-ONCOLOGICAL MARKERS IN MEN OF AFRICAN DESCENT

Minas T[1], Dorsey T[1], Baker F[1], Tang W[1], Candia J[1], Yeboah E[3], Tettey Y[3], Biritwum R[3], Adjei A[3], Tay E[3], Okyne V[3], Mensah J[3], Truelove A[4], Hoover R, Hsing A[5,6], Cook M[2], Ambs S[1]

[1]Laboratory of Human Carcinogenesis, [2]Division of Cancer Epidemiology and Genetics, [3]University of Ghana Medical School, [4]Westat, [5]Stanford Cancer Institute, [6]Stanford Prevention Research Center

MEETING ROOM 3

Wednesday
6 November 2019
10:30–11:30

OBJECTIVE Previously, we and others described a tumour-specific immune-inflammation gene expression signature in prostate tumours that was more prevalent in tumours of African American (AA) than European-American (EA) patients. The occurrence of an interferon signature, a subset of the immune-inflammation signature, in prostate tumours of AA patients was associated with decreased overall survival of these patients. The clinical impact of the inflammation status of tumours from these patients was further suggested by the finding that regular aspirin use, an anti-inflammatory drug, significantly reduced the risk of aggressive prostate cancer and disease recurrence in AA men. Combined, these findings suggested that immune inflammation contributes to prostate cancer progression. While various environmental exposures may promote inflammation, ancestry could also influence the inflammatory processes. It has been shown that allele frequencies of genetic variants in inflammation-related genes can markedly differ amongst population groups suggesting that ancestral factors may influence inflammatory processes.

METHODS To determine if men of African descent are differentially affected by a systemic inflammatory process, we measured 92 immune-inflammation proteins in serum samples of 1519 prostate cancer cases (659 Ghanaian, 411 AA, and 449 EA) and 1518 population controls (659 Ghanaian, 390 AA, 469 EA) using Proximity Extension Assay and assessed if the levels of these proteins vary in different population groups.

RESULTS Unsupervised hierarchical clustering of population controls according to serum levels of the immune-inflammation markers revealed that the Ghanaian samples grouped together and so did the AA and EA samples indicating that these markers alone are able to separate the three different population groups. Notably, the Ghanaian samples grouped closer to AA samples than EA samples suggesting that ancestry may play a role in the differences observed in the levels of these immune-inflammation analytes. Grouping these analytes by the biological process revealed immune markers associated with chemotaxis, tumour immunity suppression, vasculature & tissue remodelling were relatively elevated in both the Ghanaian and AA population controls compared to EA.

CONCLUSION Our finding provides preliminary evidence that there is a unique systemic immune-inflammation signature in men of African ancestry.

Misoi L

P341 | USE OF ELECTRONIC MEDICAL RECORDS SYSTEMS FOR MANAGEMENT OF BREAST AND CERVICAL CANCER IN BUSIA AND TRANS-NZOIA COUNTIES OF KENYA

Misoi L[1]

[1]Academic Model Providing Access to Healthcare /Moi Teaching And Referral Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES

1. To describe the different medical record systems used for care provision to patients with cervical and breast cancer in public health facilities in Busia and Trans-Nzoia Counties.
2. To describe the determinants of choice of health record system for the facilities.

METHODS A cross sectional survey was conducted in all the 74 facilities included in the NCD Pilot Project (PIC4C). An interviewer administered questionnaire was administered to facility and health records managers. The questionnaire included fields for direct observation by the research assistants on use/availability of patient files, patient books, Ministry of Health (MOH) daily registers, pieces of paper and electronic medical records system (EMR) as sources of screening and treatment data for Breast and cervical cancer. Data was entered into a redcap database and analyzed using SAS.

RESULTS Four types of data formats were identified; EMR, file-based records, patient books and pieces of paper. 16% of facilities used an EMR, 91% used patient books, 1% used pieces of paper and 93% used MOH daily registers. Facilities chose what to use depending on partner support, level of facility, support infrastructure and patient load.

CONCLUSION The use of electronic records system (EMR) for Breast and Cervical cancer care provision in the two counties is very low and will need improvement to increase efficiency in management of patient data and reporting. The PIC4C project plans to train health care providers in all levels of care on the use of a standardized EMR in the collection of screening and treatment data for breast and cervical cancer to improve facility and national level reporting and linkage, and to inform policy makers in decision making. AMPATH has an EMR that has been used since HIV care inception which has over 200,000 patients under care. We aim to work with the counties to institute this model of care. The NCD Pilot project (PIC4C) is a world bank funded grant.

Mlaba P

THE SOCIAL BURDEN AND EXPERIENCES OF FAMILIES CARING FOR MEMBERS LIVING WITH CANCER IN KWAZULU-NATAL, SOUTH AFRICA

Mlaba P[1], Ginindza T[1], Hlongwana K[1]
[1]University of KwaZulu-Natal

MEETING ROOM 3

Friday
8 November 2019
12:45–13:45

OBJECTIVE This research study explored the social burden that families experience in the process of providing care to their family members who are living with cancer. It provides different perspectives into cancer care from the family caregiver point of view and a platform for family caregivers (FCs) to share their care giving experiences.

METHODS This study was conducted through qualitative methods and was rooted in the interpretivist paradigm to understand the cancer care giving experience by interpreting the subjective perspectives of the FCs. 20 FCs who were actively involved in caring for or previously had the experience of caring for a family member with cancer participated in the study. A semi-structured interview guide was used to conduct in-depth interviews where participants were asked questions that focused on the social burden of caring for a family member with cancer.

FINDINGS Three themes emerged concerning the social burden of cancer care giving among FCs; impact on the relationship with the patient, a change in life and social support.

CONCLUSIONS The results of this study demonstrated that cancer care giving is a difficult and time-consuming task for FCs and becomes even tougher for FCs who lack social support from others. Social support is what FCs long for the most as this can lighten the caregiver burden that they face. This study has pointed out that there is a need for a family centred approach to care giving and a collaborative partnership between patients, healthcare providers and FCs. There is a need for FCs to be recognized in the healthcare system with the development of policies and interventions that will support the needs of FCs and lighten the caregiver burden that they are faced with.

Mohamed Z

CHEMOTHERAPY: USING RELATIONSHIPS AND PROTOCOLS TO BRIDGE THE ADULT/PAEDIATRIC DIVIDE

Mohamed Z[1,2], Naiker T[1,2]
[1]University of Cape Town, [2]Groote Schuur Hospital

MEETING ROOM 4

Thursday
7 November 2019
08:30–10:00

Cancer is uncommon in adolescents but has become the leading cause of disease-related death in high-income countries. It is surpassed by infectious diseases in low and middle-income countries, however survival rates for children and adolescents with cancer are up to 60% lower in African low-income countries where the median age of the population ranges from 15 to 19 years. Adolescence is a time of major physical, physiological, cognitive and social development. Searching for identity and asserting independence all adds to the challenge of treating cancer in this group. Age appropriate environment and expertise is required to navigate the divide between paediatric and adult oncology. This transition is best facilitated in a coordinated fashion to ensure care through the continuum from diagnosis to survivorship. Variation in healthcare systems and infrastructure precludes the use of a standardised approach to managing adolescents with cancer. This session will identify the essential stakeholders needed for multidisciplinary clinics, look at using shared protocols to manage common cancers seen in childhood and adolescence, and explore ways to manage patients across the age spectrum. Practical chemotherapy-related questions like dose considerations, late effects and fertility issues in adolescents will be discussed. A supportive patient-provider relationship has been shown to be essential for adolescents' perception of quality care. This may present an obstacle in the transition to adult care as they are reluctant to switch from the caring environment provided by the paediatric oncology service to the overburdened and often under-resourced adult oncology service. A step-wise approach may alleviate this problem but relies on good cooperation between paediatric and adult cancer care providers. The population of childhood and adolescent cancer survivors is steadily increasing worldwide thus comprehensive survivorship programs are paramount.

Mohamed Z
RADIOTHERAPY: ANY SPECIAL CONSIDERATIONS?

Mohamed Z[1,2], Naiker T[1,2]
[1]University of Cape Town, [2]Groote Schuur Hospital

MEETING ROOM 4

**Thursday
7 November 2019
08:30–10:00**

Modern radical cancer therapy is tailored to provide the best chance of cure whilst limiting late side-effects. Historically radiotherapy was the most successful modality in the treatment of childhood cancers, however it's use has declined considerably over the past 40 years due to adverse effects. Improved survival rates seen over the same period has been attributed to advances in chemotherapy, use of combination therapy, enhanced risk stratification and improvements in surgical and radiotherapy techniques. Radiotherapy is an invaluable tool in the palliative care setting. Adolescent and young adult cancer survivors demonstrate an increased mortality from secondary malignancies and non-cancer-related causes compared to the general population. The excess morbidity and mortality noted in this group persists lifelong. Physical and endocrine maturation during adolescence must be considered when planning radiotherapy to ensure that cancer survivors attain pubertal milestones and develop to their full potential with minimal sequelae. Modern radiotherapy techniques have resulted in superior dose distribution and reduced dose to normal structures. Good pre-treatment imaging is essential for accurately determining radiotherapy target volumes. All relevant organs at risk should be properly contoured and internationally accepted normal tissue complication guidelines like Quantec utilised to minimise late effects. Where less sophisticated radiotherapy planning and treatment techniques is all that is available, it is still crucial to plan wisely to limit late effects. We shall review the radiotherapy-induced late effects on various organ systems and examine the interplay between the various treatment modalities in the evolution of some of these late effects. Preservation of reproductive function and fertility is of great concern to adolescents undergoing cancer treatment. Adolescent cognitive development and behavioural issues must be considered when planning and consenting for radiotherapy to ensure compliance.

Mokokwe L

P342 | OPTIMIZING PROVIDER ADHERENCE TO STANDARD THERAPY DELIVERY IN BREAST CANCER PATIENTS IN BOTSWANA

Mokokwe L[1], Ralefala T[2], Oyekunle A[3], Grover S[1,4], Shulman L[5], Martei Y[1,5]
[1]Botswana-University of Pennsylvania Partnership, [2]Princess Marina Hospital, [3]University of Botswana, [4]University of Pennsylvania, [5]University of Pennsylvania

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Cancer treatment guidelines are important for improving survival outcomes, by promoting high-quality care delivery that minimizes treatment variation. The "WHO Choosing Interventions that are Cost-Effective" team assessed that systemic treatment for breast cancer in Sub Saharan Africa (SSA) is cost effective. Subsequently, rigorous resource-stratified guidelines have been developed, but there is a critical lack of real-world data on the adoption of these guidelines. We aim to identify provider barriers to and facilitators of breast cancer guideline adherence at Princess Marina Hospital (PMH) in Botswana.

METHODS We will use a modified Consolidated Framework for Implementation Research (CFIR) qualitative interview guide to conduct semi-structured interviews with 30 oncology healthcare providers at PMH. The final number of study participants depend on thematic saturation. All interviews will be recorded, transcribed and uploaded in NVivo for analysis. An integrated analysis approach will be used using a combination of a priori codes informed by the CFIR construct and emerging themes. Interviews will be completed and analysed for presentation at AORTIC.

RESULTS We will identify actionable targets, using the CFIR model, for improving implementation effectiveness of resource-stratified guidelines. For example, we may find barriers related to 1) care delivery characteristics (e.g. complexity of the guidelines) or 2)outer setting (e.g. factors related to limited social support for patients or inadequate patient coping strategies).

CONCLUSIONS The study will provide a systematic approach for continuous evaluation and monitoring of resource-stratified treatment guideline adherence using a well-established implementation science approach that can be scaled up and replicated in other countries in SSA. Ultimately the results will inform actionable targets for interventions to maximize adherence and implementation effectiveness of treatment guidelines. This will promote high-quality care by ensuring consistent care delivery, enhancing nursing familiarity with standard regimens, providing reliable data for medicine stocking and enabling rigorous assessment of breast cancer outcomes.

Molebatsi K

P132 | IDENTIFYING PATIENTS WITH SYMPTOMATIC CANCER IN PRIMARY CARE IN BOTSWANA: A PREDICTIVE MODELLING ANALYSIS

NEW HALL

Tuesday
5 November 2019
18:15–20:00

Molebatsi K[1,2], Iyer H[3], Tapela N[4], Dryden-Peterson S[3,5]
[1]University of Botswana, [2]Botswana Harvard AIDS Institute Partnership, [3]Harvard T.H. Chan School of Public Health, [4]University of Oxford, [5]Brigham & Women's Hospital

OBJECTIVE Like in neighbouring African countries, cancer patients in Botswana present with advanced stage, leading to poor prognosis. Given resource and specialist constraints, primary care providers should target patients with the highest probability of cancer for timely referral. We compared physician assessment of cancer probability to a statistical model using clinical and demographic information collected by primary care providers in Botswana.

METHODS Primary care providers identified patients presenting with syndromes compatible with cancer in the rural Kweneng East Health District of Botswana. Cancer suspects were followed until they entered specialized care for cancer treatment (following pathology-based diagnosis), exited without cancer, or died. Data were collected through phone interviews with patients and clinicians. Predictors evaluated included age, sex, performance status, baseline cancer probability (primary clinician; low, intermediate, high), baseline cancer probability (study physician), predominant symptom (lump, bleeding, pain, or other), and HIV status. We fit predictive models using logistic regression with 10-fold cross-validation: 1) using all predictors, 2) study physician assessment alone, and 3) demographics and symptoms alone. In addition, we used LASSO regression to inform covariate selection and model fit.

RESULTS 507 cancer suspects were enrolled (April 2016 to May 2018) leading to 153 (30%) cancers (30 cervix, 29 breast). Median age was 48, 78% were women, and 31% were living with HIV. Models including all sets of predictors were able to separate cancer patients from non-cancer patients and correctly classify patients without cancer, though models 1 (c-statistic: 0.84, 95% CI: 0.81, 0.88; specificity: 0.90) and 2 (0.79, 95% CI: 0.75, 0.83, 0.92) performed better than 3 (0.74, 95% CI: 0.70, 0.79; 0.87). LASSO regression did not change results.

CONCLUSION While clinician's assessment performed best, all predictive models demonstrated reasonably good classification ability. Next steps include developing risk scores for use by primary care providers to facilitate triage.

Momodu A

P017 | UTILIZATION OF MOBILE HEALTH APPLICATION AS AN INTERVENTION STRATEGY TO PROMOTE ACCESS TO CANCER SURVIVORSHIP SERVICES: FINDINGS FROM THE ONCOPADI CANCER APP

Momodu A[1], Salako O[1], Olanlege A[1], Ayinla A[1], Okediji P[1], Akinlua J[1]
[1]Sebeccly Cancer Care and Support Center

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cancer survivorship services (CSS) are a critical component of care yet less than 15% of Africans with survivorship needs are able to access them. The Oncopadi Cancer App is a digital cancer care navigation and resource tool aimed at improving access to CSS by equipping cancer patients with the right access to treatment, information, and coping resources. This study aims to assess the use of mobile health application as an intervention strategy in promoting access to CSS.

METHOD This study is an analysis of the findings of the Oncopadi app from 186 registered users (across 4 states in Nigeria and 2 West African Countries). Baseline data were used to assess the service utilization rates.

RESULTS The mean age for the 186 registered users was 35.1 ± 11.6 years; the majority of the users were between 21 and 30 years (42.77%); and 172females (92.5%). About 75.4% accessed Oncopadi using a mobile phone, 23.7% used a computer and 0.9% used tablets. The uptake of CSS on Oncopadi by registered users was 97.4%. Majority 50.3% opted for chatbot instant messaging, 40.6% used the chat forums and blog services. 40 users (22.5%) opted for teleconsultation services of which 97.5% was via video and 2.5% was via audio. About 6.6% opted for deals and discounts (diagnostic and pharmaceutical requests). The majority, 41.4% (75 users) opted for at least two services provided, 39.8% opted for just one service and only about 18.7% opted for more than two services provided.

CONCLUSION This study shows that there is a relatively high demand for CSS through integrated features (chatbot, chat forums and blog) on a digital health application. By leveraging on digital technology, we can scale up access to accurate cancer information, coping resources and treatment navigation thus promoting the early presentation and better health-seeking behaviour by Africans.

TIMELY DIAGNOSIS OF SYMPTOMATIC CANCER: THE AWACAN STUDY

Moodley J

DEVELOPMENT AND VALIDATION OF THE BREAST AND CERVICAL AWACAN TOOL

Moodley J[1], Mwaka A[2], Scott S[3], Constant D[1], Walter F[4]
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MEETING ROOM 2

Thursday
7 November 2019
10:30–11:30

Measuring factors influencing time to presentation is important in developing and evaluating interventions to promote timely cancer diagnosis, yet there is a lack of validated, culturally relevant measurement tools. To address this we developed the African Women Awareness of CANcer (AWACAN) breast and cervical cancer tool for use in Sub-Saharan Africa. Tool development steps included:

1) Item generation

2) Item refinement

3) Assessment of test-retest reliability, construct validity and internal reliability

4) Local language translation. Intra-class correlation (ICC) indicated good rest-retest reliability.

The tool had good construct validity and high internal reliability.

Women's (n=1,758) breast and cervical cancer awareness, health-seeking behaviour and barriers to care were measured using the AWACAN tools in cross-sectional community-based surveys conducted in SA and Uganda.

In-depth interviews with 26 women from Uganda with symptoms suggestive of breast and cervical cancer indicated that changes were interpreted based on previous life experience; information from healthcare professionals and media and; on views of husbands, trusted relatives and friends. Changes were frequently normalised and few thought their symptoms could be cancer-related.

Interventions in the UK to promote timely presentation with possible cancer symptoms have resulted in increased rates of presentation and cancer diagnosis, although to date less evidence of earlier stage diagnosis. Approaches will be reviewed for potential application in LMIC settings.

Mossanda K

P039 | DNA DAMAGE INDUCED BY OXIDATIVE STRESS IN HEPATIC IRON OVERLOAD DISEASE, OESOPHAGEAL AND PROSTATE CANCERS

Mossanda K[1,2], Maseko F[2], Asare G[3], Gaudji G[2], Joubert H[2], Kew M[5], Segone A[2]
[1]Southern African Training, [2]University of Limpopo, [3]University of Ghana, [5]University of Cape Town

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION Prostate cancer (PC) is the most common form of non-cutaneous cancer in men in western and developing countries (incidence 67, 9 per 100000 in South Africa). In the last decade worldwide growing evidence implicate reactive oxygen species (ROS) in the development of premalignant conditions in carcinogenesis of prostate cancer, squamous cell carcinoma of oesophagus due to Helicobacter pylori infection(incidence14,5%) and hepatocellular carcinoma by excessive intake of dietary iron (incidence 23–26%).

OBJECTIVE This study aims to demonstrate the implication of oxidative stress in the extent of DNA damage during the progression of these types of cancer.

METHODS Oxidative stress (OS) was measured by Lipid peroxides (LPO), Thiobarbituric acid reactive substances (TBARs), Isoprostane (ISO) using classical methods whereas Superoxide dismutase (SOD) and Glutathion peroxidase (GPx) activities were assessed using kits commercially available. Level of 8-hydroxy-2'-deoxy-guanosine (8-OH-dG) measuring the extent of DNA damage and that of 4-Hdroxy-2'-nonenol (4-HNE) measuring the extent of the lipid-peroxidation were evaluated by ELISA method. Prostate specific antigen (PSA) was evaluated using kits commercially available. Gleason Score was based on architectural patterns seen on H&E sections graded in well, moderate and poorly differentiated prostate cancer.

RESULTS Consistent correlation has been observed between DNA damage as indicated by the presence in situ of high levels of 8-OH-dG in biopsies, in serum/plasma and the extent of oxidative stress biomarkers in PC as evinced by the high values of PSA and Gleason score. These high values of this DNA metabolites were also observed in SCCO and HCC. The mean value of 8-OHdG (6,097/ml) in the PC test group was significantly higher ($p < 0.05$) than that of the control group (5,327ng/ml). A moderate positive correlation ($r = 0.57$) between the two groups was also observed. Nevertheless, conflicting correlation between 8-OHdG and Gleason score were noted.

CONCLUSION Free radicals may damage DNA molecule and overexpress some oncogenes suggesting their implication in carcinogenesis. This study has shown that 8OH-dG could be considered as one of the OS biomarkers for prostate, oesophageal and liver cancers.

Mossanda K

REVERSE PHARMACOLOGY APPROACH FOR ANTI-CANCER DRUG DEVELOPMENT FROM AFRICAN MEDICINAL PLANTS

Mossanda K[1,2]
[1]Southern African Training, [2]Promotion of Traditional Medicine

MEETING ROOM 4

Friday
8 November 2019
08:30–10:00

INTRODUCTION AND OBJECTIVE Because of their massive use by 80–85% of African population, medicinal preparations from known plants used traditionally against cancer in Africa need to be evaluated for their efficacy using reverse pharmacology approach.

MATERIAL AND METHODS Forty (40) HIV/AIDs patients with cancer associated with HIV/AIDs were divided into 2 groups, and treated by trained traditional healers using for each group one of the following two plant extracts: Cancer bush (CB, Sutherlandia fructescens) and Devil's Claw (DEV, Harpagophytum procumbens) used for a long period of time in Southern Africa in the traditional treatment of those diseases. Analytical and biological previously conducted, demonstrated their scavenging capacity on free radical generation and their chemo preventive/anti-inflammatory and anti-metastasic activities using molecular techniques. Biological tests: CD4 count viral load and liver enzymes: Aspartate amino transferase (AST), Alanine amino transferase (ALT) and y Glutamyl transpeptidase (y GT).have been performed throughout the progression of the disease before and after the administration of plant preparations. Regular adjustment of doses was performed for quality control and standardisation purpose based on active compounds present in each of the plant extracts.

RESULTS Our data demonstrated that Cancer bush and Devil's Claw used as medicinal plants in South Africa possess all at some stages, antioxidant activities. A significant chemopreventive/anti-inflammatory activity detected by inhibition of TPA-stimulated COX-2 expression in MCF-10A cells in vitro and in mouse in vivo was observed with both plant extracts. An immune-boosting activity against HIV/AIDS and a disappearance of malignancies associated with HIV/AIDS disease were observed after six-month treatment of these patients by these herbal preparations. Extract from DEV has reduced more the malignant lesions because of its substantial anti-metastatic activity on MMP-7 mRNA in HT-29 cells.

CONCLUSION This type of "reverse pharmacology" approach can help to improve patient health status and to achieve rapidly a programme of transferring promising plants into clinical settings.

Motlana M

P133 | THE EPIDEMIOLOGICAL DISTRIBUTION OF CANCER IN KWAZULU-NATAL

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[1]University of KwaZulu-Natal

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES The aim of the study is to describe the trends and geographical distribution of cancer prevalence in KwaZulu-Natal by conducting a three-year retrospective study at three main public hospitals (Inkosi Albert Luthuli Central hospital, Addington hospital, Grey's hospital) in KwaZulu-Natal, South Africa.

METHODS The tool used for extracting data focuses on patient socio-demographics, risk factors, diagnosis, types of investigations performed on the patient, oncology duration and types of treatment patients are given from the year 2015 till 2017. Data is captured on Research Electronic Data Capture (REDCap) and analysed using STATA. The Kulldorf and Flex spatial scan will be used to identify the cancer hotspots.

RESULTS The preliminary results from 300 analysed data of medical records out of 14 058 identified so far. The results presented that 63% of cancers were of females and 36% of males. Twenty-one percent (21%) of all new cancer cases seen in KwaZulu-Natal were from individuals within the age of 40–49 years. The majority receiving health services from the hospitals are blacks (68.33%) followed by the Asians (7.33%), whites (4.33%) and lastly Indians (0.67%). Some of the leading cancers noted in the province are HIV related Kaposi sarcoma (19.33%), cervical (11.87%), breast (10.33%), lung (6%), endometrium (5.33%), colon (5%), vulva (3.67%) and prostate (3%). Treatment plan measures that the study focused on were chemotherapy (43%) and radiotherapy (5.33%).

CONCLUSIONS The study has a misrepresentation of paediatrics and blood-related cancers due to inadequate reporting. The preliminary findings show that lung cancer is one of the top prevalent cancers seen in the province of KwaZulu-Natal. Furthermore, lung-related cancers are likely to be underreported due to generalization used by the international classification of disease (ICD-10) and commonalities it has with tuberculosis and chronic obstructive pulmonary disease (COPD). The study further anticipates higher concentration of cancer cases around the metropolitan districts where the hospitals are situated.

Motsuku L

P343 | IMPROVING CASE FINDING AND COMPLETENESS OF EKHURULENI POPULATION-BASED CANCER REGISTRY, GAUTENG, SOUTH AFRICA

Motsuku L[1], Khoali L[1,2], Chen W[1,2], Sengayi M[1,2], Singh E[1,2]
[1]National Cancer Registry, [2]University of the Witwatersrand

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVES Systematic and comprehensive case-finding is essential for population-based cancer registration. The study aimed to improve the completeness of data for the newly established Ekurhuleni Population-Based Cancer Registry (EPBCR) in South Africa.

METHODS Our epidemiologist visited the Zimbabwe National Cancer Registry (ZNCR) through the Union for International Cancer Control (UICC) fellowship to learn best practices for population-based cancer registration. We developed a strategic plan to improve case-finding in the EPBCR which included; stakeholder engagement, identification of new active and passive surveillance data sources, and tracing of cancer patient flow in existing sources. The plan was presented to cancer surveillance officers at one day workshop and implemented. We conducted a record linkage of the national pathology-based cancer registry database for 2017 and EPBCR database for 2017 to identify laboratory cancer records from Ekurhuleni district which were not in the EPBCR database. The laboratory records of Ekurhuleni residents which were not in the EPBCR database were allocated to surveillance officers for tracing and notification.

RESULTS Overall case-finding increased by 62.1% from 2080 records on 31st August 2018 to 3371 records by 31st January 2019. Prior to the study, only 14 data sources were covered by EPBCR, an additional 4 sources were included after the enhanced case-finding effort. Record linkage with the pathology-based registry identified 526 cases that had not been previously reported.

CONCLUSION The regional knowledge transfer within the African community is crucial for establishing quality population-based cancer registration. Systematic mapping of both active and passive data sources is essential for completeness in cancer registries.

Mowla S
P180 | EBV AND HIV: A COLLABORATION IN LYMPHOMA DEVELOPMENT

Mowla S[1], Mapekula L[1]
[1]University of Cape Town

NEW HALL

Tuesday
5 November 2019
18:15–20:00

Infection with the Human Immunodeficiency Virus (HIV) is associated with a high incidence of B-cell lymphomas. Burkitts Lymphoma (BL) is one of the most prevalent childhood cancers in Africa, and the second most common B-cell malignancy among HIV-infected individuals. BL is also associated with EBV infection, a known oncogenic virus.

OBJECTIVE Coinfection with multiple agents is known to accelerate cancer development and this project investigates the cooperation of EBV and HIV in the development of BL.

METHODS A cell culture model is used to investigate the cooperative effect of EBV Latent Membrane Protein 1 (LMP1) and HIV-1 trans-activator of transcription (HIV-1 Tat) protein on the expression of two key lymphoma driver genes, Activation Induced cytidine Deaminase (AID), and c-MYC.

RESULTS Here we show that LMP1, a major EBV-encoded oncoprotein, significantly enhances both AID and c-MYC expression when ectopically expressed in BL cells. We further show that LMP1 enhances the activity of the AID promoter, and that it does this through an early growth response protein 1 (EGR-1) binding element. We also show that this effect is enhanced in the presence of HIV-1 Tat.

CONCLUSIONS These findings show for the first time that EBV and HIV cooperate to enhance the cancer phenotype and support a direct oncogenic role for HIV in the development of lymphoma. These results provide a potential explanation for the aggressive BL cancer phenotype observed in HIV infected individuals, even those undergoing combination antiretroviral therapy.

Moya-salazar J

P048 | THE ECOLOGICAL MODIFICATION OF PAPANICOLAOU STAIN FOR SUSTAINABLE CERVICAL CANCER DIAGNOSIS: SDG'S AND CANCER SCREENING

Moya-salazar J[1], Rojas-Zumaran V[2]
[1]Norbert Wiener University, [2]Hospital Nacional Docente Madre Niño San Bartolome

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

BACKGROUND The Papanicolaou's stain used for cervical cancer screening worldwide employs toxic-carcinogenic reagents. In the current context, contamination by PAP goes unnoticed and is dangerous for biodiversity.

METHODS We evaluate 72,901 smears within a prospective study at the San Bartolome Hospital in Lima, Peru. The Eco-Pap employs four strategies to significantly reduce the use of toxic-carcinogenic reagents: 1st) the use of Harris' progressive haematoxylin which does not require a differentiator (hydrochloric acid) or a "bluing" process (ammonia solution). 2nd) in this same stage, we develop a control system that eliminates mercury oxide water pollution, 3rd) the use of a polychromatic solution (a mixture of Orange G and EA-36), 4rd) and the direct mounting which eliminates the use of xylene's bath for cellular clearing. The stain quality was evaluated by Bethesda system, and by the Stain Quality Index (SQI).

RESULTS Seventeen (23.7%) squamous cell carcinoma, 2 (2.7%) keratinizing squamous cell carcinoma, 45 (62.5%) carcinoma in Situ, 5 (6.9%) invasive squamous cell carcinoma, and 3 (4.1%) adenocarcinomas were diagnosed with Eco-Pap. The Eco-Pap reported a sensitivity of 99.8%, a specificity of 100%, and post-test probability of 99.5%. The global SQI were of 0.96 (ideal=1). The Eco-Pap technique in one year reduced the use of xylene to 72 litres, of HCl and NH3 to 6 litres, and of mercury oxide to 1.5gr. This method allows the creation of an ecological environment during the screening of cervical cancer, it is a tool of the Occupational Health Promotion, and it is widely important in low income countries.

CONCLUSIONS Our results demonstrate that the Eco-Pap technique offers the same staining results as those obtained by conventional staining methods used in cervical cancer screening. More importantly, the Eco-Pap test by significantly reducing the use of highly toxic-carcinogenic reagents offers a considerable value-added factor protecting the environment.

Moya-salazar J

P181 | FREQUENCY OF HUMAN PAPILLOMAVIRUS AND CYTOLOGICAL ABNORMALITIES IN HIV + MSM PATIENTS IN LIMA, PERU

Moya-salazar J[1,2], Salazar-Hernandes R[3], Rojas-Zumaran V[2], Quispe W[3]
[1]Norbert Wiener University, [2]Hospital Nacional Docente Madre Niño San Bartolome, [3]Hospital Nacional Guillermo Almenara Irigoyen

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

INTRODUCTION Human immunodeficiency virus (HIV) infection poses a high risk to every government worldwide. HIV-infected men who have sex with men (MSM) are at high risk for infection with the human papillomavirus virus (HPV), which is the most common sexually transmitted infection globally, and therefore in the development of anogenital cancers.

OBJECTIVE to determine the frequency of HPV and anal cytological abnormalities in HIV+ Peruvian MSM patients at Guillermo Almenara Irigoyen National Hospital (HNGAI) during 2017–2018.

MATERIAL AND METHOD A retrospective, retrospective research was conducted in the HNGAI. We used the International Code of Diseases (C22, C21.2, C24.8, C569.44) on anal dysplasia, HPV (B97.7) and HIV (B20-B24). We included HIV+ patients with or without long-term High Antiretroviral Therapy (HAART), and aged 18–68 years. We carry out a systematically search to the patient' clinical records within the period 2017–2018. We considered viral load, CD4+ lymphocyte count, viral status and other clinical characteristics. We used the Bethesda System for cytological interpretation and Hybribio GenoArray for the HPV genotyping

RESULTS Our preliminary results included 35 male patients with a mean age of 36.7 ±10 years (95% CI: 33.4 to 40.1). We reported patients with HIV status at A1 (8.6%), A2 (14.3%), A3 (11.4%), then B1 (2.9%), B2 (20%) and B3 (2.9%) %), and C1 (5.7%) and C3 (25.7%). Hence, two (2.9%) patients had an unspecified stage of infection. According to clinical characteristics, the CD4+ lymphocyte level was 377.4 ± 250 cells/ml (95% CI: 294.4 to 460.4) with a minimum count of 43 cells/ml and a maximum of 1109 cells/ml. The mean viral load was 28.2±79.5 [copies]/RNA (95% CI: 1.8 to 54.4), with a mode of 0.1 [copies]/RNA and a range of 0, 1 to 300 [copies]/RNA. We determined 12 (34.3%) patients with anal cytological abnormalities: 9 (75%) with ASCUS, 2 (16%) with HPV infection, and (18%) with AIN 1. Subclinical HPV infection was observed in 50% of the patients. All ASCUS and AIN 1 had high-risk HPV, the most frequent genotype was 16 and 32. Poly-infection was observed in 6 (20%) patients.

CONCLUSION The frequency of HPV in HIV+ Peruvian MSM was higher than that reported in the general population and was related to abnormalities in anal cytology and stage of viral infection. Prevention and control measures should be established in MSM with HPV infection to prevent progression to malignancy

Karusisi N, Moyo V

PRE-CLINICAL DEVELOPMENT OF LEAF-1401 AND THE LEAF-1700 SERIES: A NOVEL CLASS OF POTENT NANOLIPOSOMAL POLYGLUTAMATED ANTIMETABOLITES

Karusisi N[1,2], Xu Z[1], Khalifa K[1], Gandhi N[1], Dhindsa N[1], **Moyo V**[1,2], Niyikiza C[1,2]
[1]L.E.A.F. Pharmaceuticals, [2]L.E.A.F. Rwanda

MEETING ROOM 3

Thursday
7 November 2019
13:30–14:30

OBJECTIVE To describe the discovery, development and preclinical evaluation of a novel class of anticancer therapies developed by L.E.A.F. Pharmaceuticals (USA) and L.E.A.F. Rwanda. The premise of LEAF's pipeline is based on the observation that polyglutamates of the folate analog class of antimetabolites (e.g. pemetrexed and methotrexate) are much more potent than their respective monoglutamates. For example, pentaglutamate pemetrexed is $\geq$ 80 times more potent than pemetrexed in inhibiting thymidylate synthase. For polyglutamation, monoglutamates require intracellular conversion by endogenous Folyl-Poly-Glutamate Synthetase (FPGS). FPGS is often downregulated in resistant tumour settings. Direct treatment of cancers with polyglutamate forms would be ideal, however, for 70 years researchers could not deliver these large negatively charged molecules inside a cell, thus limiting their therapeutic potential. LEAF's new generation of drugs were designed to address this challenge by directly delivering the more active polyglutamates inside cancer cells and bypass the need for endogenous FPGS.

METHODS The active pharmaceutical ingredients (API) for LEAF-1401, LEAF-1701, LEAF-1702 and LEAF-1703 were synthesized de-novo and encapsulated into nanoliposomes. In-vitro testing in various cell lines and in-vivo testing in mice were performed in a variety of tumour types.

RESULTS In-vitro, all four molecules were more potent than pemetrexed in various cancer cell lines, while sparing normal liver cells, colon and neutrophils. In-vivo, treatment of H292 lung cancer xenografts with LEAF-1701 improved survival to 59 days compared to 39 days for pemetrexed. In A549 lung cancer orthotopic models, treatment with LEAF-1401 led to reduced metastatic tumour burden and prevention of new metastases compared to pemetrexed. In-vivo in mice, doses of 60–80 mg/kg IV weekly were well tolerated with minimal impact on blood counts and chemistries.

CONCLUSION LEAF-1401 and LEAF-1700 series show promising preclinical activity and safety profiles. Following initial review by US-FDA and Rwanda-FDA, these molecules are now advancing towards the clinic.

Mpamani C

P134 | TWENTY-ONE-YEAR TREND ANALYSIS OF BREAST AND CERVICAL CANCER INCIDENCE IN KAMPALA, UGANDA (1994–2014)

Mpamani C[1], Asasira J[1], Wabinga H[2]
[1]Uganda Cancer Institute, [2]Kampala Cancer Registry

NEW HALL

Tuesday
5 November 2019
18:15–20:00

INTRODUCTION Breast and cervical cancers are the leading causes of cancer related morbidity and mortality amongst women in Uganda. However, existing studies of cancer statistics have not been comprehensive on trend analysis for the two cancers. This study aims to scrutinize the burden of breast and cervical cancer using a trend analysis of incident cases from 1994 to 2014 and suggest possible directions for control programs.

METHODS Data was obtained from the Kampala cancer registry, a population-based registry in Uganda. A Join point regression analysis was performed to detect the year when significant changes occurred according to cancer site and the menopausal status. Data was stratified in 2 groups [<50 years (premenopausal) and >50 years (postmenopausal)]. Results were summarized as crude rates (CRs), age-standardized incidence rates (ASIRs) and annual percentage change (APC) values.

RESULTS From 1994 to 2014, a total of 28,040 cases (15,495 females and 12545 males) were registered. Among females 2018 had breast cancer and 3611 had cervical cancer. Squamous Cell Carcinoma (SCC) was the most registered cervical cancer subtype (49.6%) and Ductal carcinoma (19.1%) for breast. Among females with breast cancer, the crude incidence rates increased from 8.9 in 1994 to 12.1 per 100,000 persons in 2014. The ASIRs slightly increased from 13.13 to 15.5 per 100,000 persons among the premenopausal group and from 79.9 to 103.04 per 100,000 persons among the postmenopausal group. Among cervical cancer cases, there was a minimal decrease in the incidence rates from 18.8 to 17.6 per 100,000 persons. There was a significant APC decrease of -1.7% among women <50 whereas that of postmenopausal women increased annually by 0.3%.

CONCLUSION Generally, there has been an annual increase in the burden of breast and cervical cancer cases. The government should improve on control and preventive measures of the two cancers.

Mremi A

P383 | BREAST CANCER IN TANZANIAN PATIENTS: AN ASSESSMENT OF TUMOUR TYPE, GRADE, BIOMARKER STATUS, AND TUMOUR INFILTRATING LYMPHOCYTES

Mremi A[1]
[1]Kilimanjaro Christian Medical Center

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Breast cancer is the major cause of morbidity and mortality in sub-Saharan Africa (SSA). There is evidence that the pathologic characteristics of the disease differ from those seen in women of European descent. Despite the burden of disease, data on standard pathologic features in SSA is limited and often contradictory. There is almost no data about newer potential biomarkers like tumour infiltrating lymphocytes (TILs). Lack of information makes difficult to prioritize resource use in efforts to improve breast cancer outcomes in the region. We sought to characterize the pathologic features of breast cancer in a Tanzanian population (TZ) compared to African American (AA) and White American (WA) populations, including TILs and determine whether TILs are associated with other pathologic and clinical features.

We examined consecutive cases of breast cancer in TZ (n=85) at KCMC and BMC, AA (n=120) and WA (n=120) women from Duke University Medical Center for tumour type, grade, mitotic count, and TIL involvement. Cases that were equivocal for HER 2 by immunohistochemistry were evaluated for HER amplification by fluorescent in situ hybridization. Demographic information and gross tumour characteristics were extracted from the subjects' medical records. Chi-square tests were used to compare categorical factors, and Kruskal-Wallis tests were used to compare continuous factors.

RESULTS The Tanzanian subjects were younger, had larger tumours, and more likely to have skin ulceration than the subjects in either American group. Tumors from all three groups were predominantly ductal carcinoma. Breast cancers in TZ and AA groups were more likely to be high grade (p=0.011), ER-negative (p<0.001), and high mitotic rate (p<0.0001) than the tumours in White American group. Higher levels of TIL involvement were seen among Tanzanian and African American subjects compared to White American subjects (Figure 4, p=0.0004). Among all subjects, TIL levels were higher in tumours with a high mitotic rate. Among Tanzanian and African American subjects, TIL levels were higher in ER-negative tumours.

CONCLUSIONS TZ and AA subjects are more likely to have tumours with aggressive features, higher rate of TIL than WA subjects, likely related to the increased frequency of ER-negativity. Based on high mitotic rates and high levels of TILs, many TZ patients would be expected to benefit from cytotoxic chemotherapy in general and neo-adjuvant chemotherapy in particular. Further investigation into the molecular basis for high mitotic rates may yield insight into breast cancer biology in TZ and African AA.

Msadabwe-Chikuni S
SYSTEMIC THERAPY IN GYNAECOLOGIC CANCER

Msadabwe-Chikuni S[1], Lombe D[1]
[1]Cancer Diseases Hospital

MEETING ROOM 4

**Thursday
7 November 2019
14:40–16:30**

In the recent years there have been tremendous advances in the medical management of gynaecologic cancers. We will discuss this current landscape in the medical management of cervical, ovarian and endometrial cancers. Cervical cancer Is currently the 4th most common cancer worldwide and the 4th most important cause of cancer related death in females. Though cervical cancer incidence and mortality are expected to decline due to HPV vaccination, it still remains a major public health problem especially in developing nations. In Cervical Cancer, in the definitive setting, systemic therapy is used in addition to locoregional treatments either surgery or radiotherapy and in the palliative setting in patients with recurrent disease or metastasis at the outset. The antiangiogenic anti -vascular endothelial growth factor antibody bevacizumab has been shown to improve outcomes in patients with metastatic or advanced disease. Immunotherapy is also emerging in providing durable responses in pre-treated patients with advanced disease. Ovarian cancer is the 20th most commonly diagnosed cancer worldwide but is the most lethal gynaecologic cancer. Most patients require chemotherapy upfront either in the neoadjuvant setting or in the adjuvant setting and also on recurrence. Standard chemotherapy is carboplatin and paclitaxel. Dose dense chemotherapy has been investigated. Targeted agents like bevacizumab have shown to improve outcomes and Poly (ADP-ribose) polymerase inhibitors are also promising. In Endometrial cancer, systemic therapy is used in recurrent, metastatic or high-risk disease. Carboplatin and paclitaxel are increasingly used and preferred. DNA mismatch repair (dMMR) or microsatellite instability (MSI) positive endometrial cancers, may benefit from pembrolizumab.

Msami K

P344 | ESTABLISHMENT OF POPULATION BASED CANCER REGISTRIES IN TANZANIA: A CASE STUDY OF THE DAR ES SALAAM REGISTRY

Msami K[1], Katanga J[1], Mwaiselage J[1], Omari J[1], Kahesa C[1]
[1]Ocean Road Cancer Institute

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE Cancer registries have been demonstrated to be critical for the determination of cancer burden, conduct of research, and in planning and implementation of cancer control interventions. Cancer registration though crucial is often paid little attention owing to competing demands for resources in healthcare. We report the Tanzanian experience in establishment of population-based cancer registry (PBCR) in Dar-es-salaam as a guide for other low-income countries wishing to develop cancer registration.

METHODS The ministry of health (MoHCDGEC) in collaboration with implementing partners led the establishment of PBCRs. ECSA through support from World Bank enabled the Tanzanian government to conduct a needs assessment, develop a strategic plan for national cancer registry (2019–2022), adoption of cancer registry tools, identification of geographical region for the registry, capacity building, mentoring, monitoring, and data collection process.

RESULTS The Dar es Salaam PBCR was successfully equipped and capacitated from existing facilities within Ocean Road Cancer Institute (ORCI) with almost universal acceptance rate for all sources approached. A total of 5 staff have been trained; 3 medical doctors and 2 medical records personnel, and 3200 cases abstracted between 2017 and 2018. Despite some challenges such as lack of unique identifiers to track patients and limited utilization of electronic medical records, the pre-existence of a national cancer control strategy in the context of a strong health care referral system for cancer, paved the way for adoption of strategies complementing national priorities.

CONCLUSION MoHCDGEC has been instrumental in the building of cancer registries within the country through the close involvement of partners resulting from the historic custodianship that ORCI has on cancer. This approach, modelled from past experience with failed attempts at cancer registration, is an important lesson on national level advocacy to set as national health agenda and engagement development partners when executing these programs

Mtunga E

P160 | IDENTIFYING BARRIERS-TO-CARE FOR ADULT PATIENTS WITH CANCER IN TANZANIA

Mtunga E[1], Mushi B[2], Alloyce J[1], Henke O[1], Serventi F[1], Rick T[1]
[1]Kilimanjaro Christian Medical Center, [2]Erasmus University Medical Center

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE A majority of cancers present at advanced stage in Tanzania which contributes to high mortality rates. Several of these cancers are treatable if diagnosed early. The factors leading to delay in treatment in northern Tanzania are unknown. The purpose of this study was to identify the barriers to cancer treatment in adult patients with cancer.

METHODS We interviewed newly diagnosed adult patients with cancer at the cancer centre of a large referral hospital in northern Tanzania between July 2018-March 2019. The adapted survey instrument included questions to capture demographics, delay time (time between first symptoms and initial visit to the cancer centre), and specific barriers to seeking care. Hospital records were examined for diagnosis and stage. Descriptive statistics were performed with SPSS. Ethical approval and informed consent were obtained.

RESULTS A total of 145 patients were included in the analysis. Sixty-five percent were female (n=94), the median age was 53 years (IQR 43–63 years), half (n=73) received a maximum of primary level education and 43% (n=62) were self-employed. Two-thirds of patients (n=99) had a delay time of more than 3 months. Eighty percent presented with late stage cancer (stage III and IV). The most common cited barriers-to-care included: "I thought the symptoms would go away" (n=107, 74%), "I didn't know what cancer was" (n=104, 72%), "I thought treatment would be too expensive" (n=98, 68%), "The clinic was too far away for travel" (n=85, 59%), "The pain/swelling/lump, etc. didn't bother me" (n=82, 57%), and "I had seen or heard of other people with cancer not be cured" (n=82, 57%).

CONCLUSION The barriers to seeking cancer care in northern Tanzania were centred around lack of cancer knowledge and access to care. To help reduce these barriers, education is needed regarding cancer awareness, recognition of cancer symptoms and availability of financial assistance.

Mugisha N

HUMAN PAPILLOMA VIRUS TYPES AND LINEAGES IN UGANDA CERVICAL CARCINOMA PATIENTS

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MEETING ROOM 4

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVE To determine the distribution and influence on survival of Human Papilloma Virus (HPV) types, lineages, and sub lineages in invasive cervical cancer in Uganda.

METHODS We recruited 264 patients with invasive cervical cancer (94% squamous cell carcinoma (SCC)) diagnosed at the Uganda Cancer Institute between July 2013 and February 2018. Tissue removed during biopsy was stored in liquid nitrogen until assay for HPV types (Roche Linear Array) and variants (PCR-based direct sequencing of the LCR/E6/E7 region of each type) at the University of Washington.

RESULTS Based on analysis of 241 subjects to date, we detected HPV DNA in 92% of cervical cancers. The distribution (not mutually exclusive) of HPV types was 42% HPV16, 22% HPV18, 11% HPV45, 4% HPV35, 3% HPV33, 3% HPV31; 62% contained either HPV16 (41%), HPV 18 (20%), or both (1%). Among the HPV16 positive tumours (n=101), the distribution of lineages was 4% A, 67% B, 24% C, and 4% D. Among the HPV18 positive tumours (n=51), the distribution of lineages was 12% A, 82% B, 2% C, and 4% D. In univariate analysis, there was a trend for HIV-infected patients to have lineage C compared to lineage B (p=0.06); otherwise no other clinical factors were associated with HPV type. Overall survival was not associated with HPV lineage (HR=1.3; 95% CI = 0.7, 2.9).

CONCLUSIONS Nearly two-thirds of cervical cancers (largely SCC) were associated with HPV16 and HPV18. These results are similar to series of SCC from other parts of the world. The distribution of HPV16 lineages is consistent with what has been previously observed from African-descent populations located in the U.S. HPV lineages were not associated with differences in clinical presentation or survival outcomes based on our preliminary analyses.

Mugo M
TRENDS OF LEADING CANCER CASES AT KENYATTA NATIONAL HOSPITAL

Mugo M[1]
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MEETING ROOM 4

Friday
8 November 2019
08:30–10:00

BACKGROUND In 2014 KNH cancer registry was established as one of the flagship research projects with objective to establish a central cancer database at the KNH by capturing and integrating existing cancer information from all hospital departments. The registry gives the cancer incidence and also cancer burden at the hospital, the leading cancer cases in both sexes and children which have been chosen to depict trends in incidence rates over time.

METHOD During the period the most common cancers among the patients attending the hospital from all counties in the country were recorded. Cancer registrars visit various departments on a daily or regular basis to collect cancer data from patient records by obtaining information from the central health information department, patient's records from all laboratories within KNH, mortality unit, palliative care centre, Nairobi Hospice, Cancer treatment Centre, HIV Comprehensive Care Centre, Clinical departments and Paediatrics Oncology unit. The registry also captures HIV-linked malignancies

RESULT A total of 4211 cases were registered of which 1627 Male while 2584 were female. Female cancers Cervix uteri786 and Breast 549 were the most common of all cancer cases registered. In male Cancer of Oesophagus 193, was the most diagnosed malignancy during the period of one year closely followed by Prostate 173. The most common childhood cancers were, Leukaemia's 74 (25.3%), Retinoblastoma 54, Wilm's tumor 35, Lymphomas 32 and CNS Neoplasm's 31. A large number of these cases are from Nairobi County (1028) followed by Kiambu (448). There were 204 HIV cases among males and 599 HIV positive case among women with cervical cancer with the most HIV cases recorded.

CONCLUSION The trends showed a fair account of direction in which incidence rates of the leading cancer cases occurred among the patients attended however, deaths accounted for 514 of all cancers. It also shows10 most deaths by cancer type where cancer of the blood (leukaemia's and myeloma) 81 was the major cause of death followed by cervix Uteri 64.

Mukkada S

DEVELOPMENT OF A FEVER MANAGEMENT ALGORITHM FOR PAEDIATRIC ONCOLOGY PATIENTS IN A LOW-INCOME AFRICAN SETTING

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MEETING ROOM 4

Thursday
7 November 2019
10:30–11:30

OBJECTIVE Fever is one of the most common reasons for admission in paediatric oncology patients, yet its causes and optimal management are poorly established in low resource setttings where endemic infections are different. We aimed to evaluate the feasibility of developing a fever management algorithm (FMA) in a hospital in sub-Saharan Africa using an evidence-based approach that our group has previously used in Asia and Central America.

METHODS A four-part multidisciplinary approach was used to construct a locally adapted FMA at Parirenyatwa Hospital, Zimbabwe. First, we reviewed current antimicrobial and diagnostic study practices with the local oncology team. Next, we conducted a systematic review of existing literature and comparison of practices to published guidelines, while identifying discrepancies between recommended and current practice. Third, we gathered microbiology data through clinician interviews and audited culture results in the laboratory. Finally, we identified the information required to revise the FMA and designed interventions to prospectively obtain this data.

RESULTS By replicating a previously developed approach, we created a FMA for the initial seven days of fever. Due to costs and limited access to anti-pseudomonal monotherapy, imaging, and diagnostics, the unmodified use of published guidelines was not possible, necessitating local consensus on several trade-offs. The resultant algorithm stipulates mandatory and optional diagnostic studies, recommended treatment and duration of antimicrobial therapy. Management considerations include degree of neutropenia, presence of localizing signs/symptoms, persistence of fever, and development of vital sign instability. To support algorithm implementation and revision, process improvements such as blood culture collection retrainings and outcome monitoring tools were implemented.

CONCLUSIONS We demonstrated that our approach can generate an FMA tailored to institutional resources in a low-income country. Ongoing work includes improving the availability and quality of microbiology tests and standardizing data collection practices to inform further algorithm revisions.

Somdyala N

P345 | COMPLETENESS AND ACCURACY OF ACTIVE AND PASSIVE CASE FINDING METHODS AT THE RURAL EASTERN CAPE CANCER REGISTRY IN SOUTH AFRICA

Mbuthini L[1], **Somdyala N[1]**, Müller B[2], Sithole N[1], Ncinitwa A[1], Bradshaw D[1]
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NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE The main objective of this study was to determine the benefits of active versus passive data collection for cancer registration in resource-limited areas by assessing the completeness and quality of the data generated through these two methods.

METHODS Four hospitals were selected; two peripheral and two referral hospitals, submitting data to the Eastern Cape Cancer Registry in South Africa through booth, active and passive case finding. Separate data sets were created for each collection method, consisting of notification forms abstracted for all new cancer cases identified in these hospitals between January 2014 and December 2015. To assess completeness of cancer registration, independent case ascertainment was used to determine agreement and differences between the two data sets. To assess the accuracy of recordings, an audit was carried out on a random sample of 10% of the cases identified in both data sets. Three reviewers independently scrutinized each of the sampled cases for a degree of comparison with regards to tumour topography and morphology.

RESULTS Overall, combined for the two peripheral hospitals, active vs. passive case finding covered 95% vs. 71% of the total number of cases identified, respectively. In contrast, for the two referral hospitals, the proportion of cases captured was very similar for both methods (88% vs 83%). Moreover, lower completeness was observed in reporting through passive method in peripheral hospitals vs. referral; 71% vs 88%, respectively revealing large resource constraints.

CONCLUSION Neither of the two methods alone identified all patients registered. However, for the local hospitals, active case finding resulted in markedly better case reporting than passive.

Munishi, O

P182 | AWARENESS OF CANCER RISK FACTORS, ITS SIGNS AND SYMPTOMS IN NORTHERN TANZANIA: A CROSS-SECTIONAL SURVEY IN THE GENERAL POPULATION AND IN PEOPLE LIVING WITH HIV

Munishi O[1], Mmbaga B[1], McCormack V[4], Bartlett J[3], Mchome B[1]

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE An important component of cancer control programs for the growing burden in sub-Saharan Africa is a population's awareness of risk factors. Studies thereof have focused on single rather than multiple cancers and carcinogens.

METHODS During March and April 2015, we undertook a survey to assess awareness of multiple cancer risk factors and symptoms in the Kilimanjaro region, North Tanzania. General population (n=620) and attendees at HIV Care-and-Treatment Clinics (CTC) were included (n=207).

RESULTS Participants' mean age was 43.8 (inter-quartile range 30–52) years, 58% were female. Awareness of cancer risk was highest for tobacco (90%) and alcoholic spirits (67%), but tended to be lower for infections (41% for HIV (42.2% and 41.4% for CTC and community group respectively) and 16% for HPV (16.0% and 16.6% for CTC and community group respectively), while that of mouldy maize and peanuts was 35% for both. Awareness of specific cancer signs and symptoms ranged between 70% and 90%. Awareness of alcohol and tobacco were higher in men than women (odds ratio = 1.82 (1.38, 2.40) and 3.96 (2.14, 7.31 respectively). In relation to cancer treatment, 70% preferred modern medicine and 10% preferred traditional medicine alone. 60% were not aware of any local cancer early detection services. Only 20% had ever been examined for cancer, and of those screened; CTC-group were one 1.5 times more likely to screen than community participants. Awareness did not differ by age or HIV status.

CONCLUSION There are good levels of cancer risk factor awareness for certain lifestyle related carcinogens in Tanzania, however increased awareness is needed especially for infections and cancer warning symptom both in the general and HIV-positive population, as well as some myths to be dispelled.

Murenzi G

RELATIVE CLINICAL PERFORMANCE OF CERVICAL CANCER SCREENING AND TRIAGE TESTS IN RWANDAN WOMEN LIVING WITH HIV

Murenzi G[1], Zawadi T[1], Murangwa A[1], Mutesa L[2], Anastos K[3], Castle P[3]
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MEETING ROOM 4

Wednesday
6 November 2019
10:30–11:30

OBJECTIVE We are conducting a cervical cancer screening study of ~5,000 HIV+ women, aged 30–54 years, living in Rwanda to compare different screening and management strategies.

METHODS During the screening visit, a nurse administers a questionnaire on demographics and Invasive Cervical Cancer (ICC) risk factors, collects a specimen for HPV testing by GeneXpert and does Visual Inspection with Acetic acid (VIA). At colposcopy for screen-positive women, two additional specimens are taken for biomarker evaluations (E6/E7 oncoproteins) followed by rigorous colposcopic evaluation including 4-quadrant microbiopsies/biopsies. In a subset of women (n=720, 45% of screen-positive women) for whom histologic diagnosis is now available, the relative sensitivity for cervical intraepithelial neoplasia grade 2 or more severe diagnoses (CIN2+) was calculated for HPV DNA testing and VIA. The relative sensitivity and specificity for CIN2+ among HPV+ women for DNA and E6/E7 detection of HPV16, HPV1618/45 and HPV16/18/31/33/35/45/52/58 were calculated.

RESULTS The prevalence of HPV DNA was 26.7% and VIA positivity was 10.3%. The prevalence of CIN2+ was 6.4% (46 of 720) and ICC was 1.3% (9 of 720). Relative sensitivity of HPV DNA and VIA for CIN2+ was 89.1% and 43.5% respectively, p<0.001. Among HPV+ women, DNA and E6/E7 detection of HPV16 were 26.3% and 17.5% sensitive and 88.6% and 96.2% specific, respectively, for CIN2+. DNA and E6/E7 detection of HPV16/18/45 were 39.5% and 27.5% sensitive and 76.4% and 91.4% specific, respectively, for CIN2+. DNA and E6/E7 detection of HPV16/18/31/33/45/52/58 were 84.2% and 65% sensitive and 32.4% and 69.8% specific, respectively, for CIN2+.

CONCLUSIONS HPV DNA testing was twice as sensitive for CIN2+ but 2.5-fold more likely to be positive compared to VIA. Sensitivity increases and specificity decreases for CIN2+ with DNA and E6/E7 detection of more HPV types, with DNA being more sensitive but less specific. Future results will include more pathology results and the evaluation of other biomarkers.

Murgor L
P222 | DIGITAL POINT OF CARE FOR CANCER CARE

Murgor L[1,3], Asirwa C[1,2,3]
[1]Academic Model Providing Access to Healthcare, [2]Moi University, [3]Moi Teaching and Referral Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES Point of care is an electronic health record system which is a digital version of a patient's paper chart. This system is real-time, information is available instantly, patient centred, and securely to authorized users. The digital system helps care providers by minimizing time spent on manual documentation and allow access to evidence-based tools that providers can use to make decisions hence maximizing time for patient care. Over the past 10 years, patient information has all been captured manually on the patient chart. Due to this method of information collection, patient's vital information was missing in the charts. This information could not be shared among various care providers and among facilities providing care.

METHODOLOGY This paper aims is to showcase how to develop a system that is patient centred, and a system built to go beyond standard clinical data collected in a provider's office and can be inclusive of a broader view of a patient's care such as demographics, medical history, diagnoses, treatment plans, allergies, radiology images, laboratory, test results and other plans. The system is built to interlink interdepartmental and facilities providing cancer care.

RESULTS In Ampath cancer centre, 70% of patients' charts is now digitalized. A retrospective data entry from the manual charts was done during the implementation process. Currently information is available whenever and wherever it is needed. The system has been linked to remote cancer screening clinics hence during patient referral the screening findings is already available for diagnostic procedure and treatment at the cancer centre. Sharing of patient information to non-Ampath cancer centre during referrals for further management is impossible since those centres use incompatible systems.

CONCLUSIONS Since with Point of care (POC) information is available whenever and wherever it is needed, there is need to interconnect facilities providing cancer care. Providers will be able to access all patient information hence there will be optimal cancer care.

Mushi B

IMPROVING ACCESS TO STENTS FOR PATIENTS WITH OESOPHAGEAL CANCER IN EAST AFRICA

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[1]Muhimbili University of Health and Allied Sciences, [2]University of Zambia School of Medicine, [3]Kamuzu Central Hospital, [4]Muhimbili National hospital, [5]Tenwek Hospital

MEETING ROOM 3

Wednesday
6 November 2019
13:30–14:30

OBJECTIVES The eastern corridor of Africa is impacted by a high burden of oesophageal cancer (OEC) with more than 90% of patients presenting with advanced disease and obstructive dysphagia. Self-expanding metal stents (SEMS) have been previously reported as safe and effective for palliation in resource-limited settings; however, access to stents within the region has historically been limited by prohibitive costs and barriers to access.

METHODS The African Esophageal Cancer Consortium (AfrECC) partnered with the Clinton Health Access Initiative (CHAI) to: (1) conduct a market analysis of manufacturers in order to identify an industry partner committed to supplying affordably priced, high quality SEMS; (2) develop multi-national procurement and regulatory strategies for importing SEMS; (3) train East African endoscopists to deploy SEMS; and (4) establish a device registry.

RESULT Following an extensive analysis of stent manufacturers in China and the U.S., Boston Scientific Corporation (BSC) announced its commitment to collaborate with AfrECC and CHAI to launch an access program to provide SEMS to patients in Tanzania, Kenya, Malawi and Zambia at a generously subsidized price. Tanzania, Kenya and Zambia have subsequently undertaken procedures to navigate the necessary regulatory approvals for stent procurement. In parallel, a skills-training program for safe endoscopic placement of SEMS has been developed. In November 2018 and April 2019, the first two trainings were performed in Kenya and Tanzania. A device registry has been developed and will be implemented at all sites to monitor safety, measure competency, oversee supply chain management, and reinforce proper endoscopic techniques.

CONCLUSION Improved access to SEMS in East Africa will provide palliation and nutritional support for OEC patients. We share the example of this collaboration between AfrECC, CHAI, and BSC to highlight an innovative solution to align regional needs with a supply chain for a high priority medical device.

Mutyaba I

P183 | PREDICTORS OF KAPOSI SARCOMA IMMUNE RECONSTITUTION SYNDROME AMONG UGANDAN KAPOSI SARCOMA PATIENTS INITIATING CONCURRENT ANTIRETROVIRAL THERAPY AND CHEMOTHERAPY

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NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

BACKGROUND Treatment of epidemic Kaposi sarcoma (KS) with antiretroviral therapy (ART) can be complicated by an atypical and sometimes severe clinical worsening due to KS immune reconstitution inflammatory syndrome (KS-IRIS). Diagnosis of KS-IRIS is challenging, and optimal management of KS-IRIS remains unknown. We therefore sought to describe the cumulative incidence and predictors of KS-IRIS in KS patients initiating concurrent cancer chemotherapy and ART in Kampala, Uganda.

METHODS We enrolled adult HIV-infected patients with biopsy-proven KS and followed them monthly on initiation of KS treatment. KS-IRIS diagnosis was based on worsening of KS (an increase in number/size of lesions) with a concurrent decrease of HIV VL >1 log within 12 weeks of starting ART. Kaplan-Meir and Cox regression methods were used to determine incidence and predictors of KS-IRIS.

RESULTS We enrolled 73 participants with median age 31 years (range 18–75); 76% were male and 86% had extensive KS. At baseline, median HIV VL was 5.3 log copies/mL (range 2.35–6.67), and CD4 T-cell count was191 cells/dL (range 3–1437). KS-IRIS cumulative incidence was 46.7% (36%-59%). In univariate analysis, KS-IRIS was associated with abnormal chest x-ray (HR=2.58 [1.04–6.4], p=0.04), and CD4 count <150cells/mL (HR=2.07 [1.05–4.07], p=0.04); there was a trend towards significance for detection of oral KSHV viremia (HR=2.9 [0.83–10.15], p=0.09), and platelet count <200(HR=2.19 [0.94–5.09], p=0.07). In multivariate analysis, KS-IRIS was associated with a platelet count <200(HR=11.57 [2.39–55.96], p=0.02), abnormal chest x-ray (HR=7.13 [1.66–3.99], p=0.01), and detection of oral KSHV viremia (HR=5.56[1.17–26.23], p=0.03).

CONCLUSIONS KS-IRIS remains common even in the context of concurrent ART and cancer chemotherapy. The risk of KS-IRIS may be higher in patients with pulmonary KS, a lower platelet count, and uncontrolled KSHV replication. These factors warrant further study for their potential as biomarkers of KS-IRIS to facilitate prevention, early diagnosis and appropriate management of KS-IRIS.

Muwonge R

P135 | EFFICACY, SAFETY AND ACCEPTABILITY OF A THERMAL ABLATION TREATMENT OF CERVICAL PRE-CANCERS: PILOT STUDY IN ZAMBIA

Muwonge R[1], Parham G[2,3], Pinder L[3], Prendiville W[1], Sankaranarayanan R[1,5], Shibemba A[4], Basu P[1]
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NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE A randomized controlled trial to assess safety, acceptability and efficacy of a new cordless, rechargeable, hand-held thermal ablation (TA) technique for treatment of cervical pre-cancerous lesions is underway in Lusaka, Zambia. This new technique would offer a significant advantage over and above the current TA treatment options and facilitate a more rapid scale-up of services in LMICs.

METHODS VIA screen-positive women eligible for ablative treatment are randomized to receive TA, cryotherapy or LLETZ. Side-effects, pain and client satisfaction are scored and recorded. Samples for HPV-DNA testing are collected at baseline and follow-up. Treatment efficacy is based on VIA and HPV status at 6-month follow-up. The PPV of VIA was evaluated using the histology of LLETZ specimens.

RESULTS Randomization of 750 VIA-positive women (250 in each arm) for the pilot phase was completed. The proportion reporting moderate to severe pain/cramps during treatment was lower in the TA (4.4%) than cryotherapy (12.4%) or LLETZ (6.0%) arms. Over 97% reported least pain (scores 1–3) and 98% highly satisfied (scores 7–9) with and willing to recommend the treatments. Treatment success rates assessed by repeat VIA at 6 months were 84%, 79% and 78% in the TA, cryotherapy and LLETZ arms, respectively. These rates were lower among all the treatment arms compared to that reported earlier, likely due to the high HIV positivity (52%) in the study population. When treatment success rates assessed by repeat HPV testing and VIA at 6 months, the estimates were 62%, 57% and 68%, respectively, underscoring lower 6-month HPV clearance among this high HIV prevalent population. Furthermore, baseline CIN 2/3 lesions were detected in 31% (74/237) of the women in the LLETZ arm.

CONCLUSIONS This pilot phase demonstrates the new TA device is extremely safe and highly acceptable. TA efficacy will be further confirmed at trial end.

Muyodi D
P346 | AMPATH BREAST AND CERVICAL CANCER CONTROL PROGRAM

Muyodi D[1], Kiptoo S[1], Were P[1], Asirwa C[1]
[1]Academic Model Providing Access to Healthcare

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To address barriers of cancer care resulting in improved access to screening and diagnostic services for breast and cervical cancer in Kenya.

METHODS AMPATH (Academic Model Providing Access to Health care) breast and cervical cancer control program works with communities and county governments. Between October 2017 and September 2018, we met county and national government officials to disseminate cancer information, carried out mass screening events, trained nurses on how to screen for the two cancers and to refer appropriately. In addition, we also created and distributed public education materials on cancer, developed data collection tools, establish electronic data collection, started cancer registries in county hospitals, and developed telemedicine connectivity with rural hospitals both for training and discussion of patients on care.

RESULTS We had 24 mass screening events in that period with 9,716 persons screened, 5,049 for breast cancer and 4,667 for cervical cancer. During the same period, 11 AMPATH routine screening clinics in the region screened 25, 889 clients (7,546 for breast cancer and 18, 343 for cervical cancer). Twenty-eight community meetings were held with county government officials to disseminate information and four remote sites were connected via telemedicine. Electronic patient encounter forms have been developed resulting in real time entry of screening data and transmission to the server. We have also held four cancer survivor meetings over the same period. At the end of the year, we held a meeting with stake holders and shared data generated from program activities

CONCLUSIONS At the end of the program, we hope to have increased awareness in the population being served, increased screening uptake, increased early diagnostics and referral, and mitigated barriers to cancer care.

Mvungi N

P223 | CLINICAL IMPACT OF A GUIDELINE IMPLEMENTATION STRATEGY ON BREAST CANCER MANAGEMENT AT A NATIONAL CANCER REFERRAL CENTRE IN TANZANIA

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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE In 2019, Tanzania's Ministry of Health will release the country's first National Cancer Treatment Guidelines. In coordination with this initiative, Ocean Road Cancer Institute (ORCI), the national cancer referral centre, will pilot an innovative theory-informed guideline implementation strategy. We aimed to develop a novel framework for evaluating the effect of this implementation strategy on clinical practice and outcomes among breast cancer (BC) patients at ORCI.

METHODS This study will be carried out through a two-phase study design comparing clinical practice metrics and patient outcomes pre- and post-guideline implementation. The pre-intervention phase is comprised of a retrospective review of all BC cases seen at ORCI from 2016 to 2018. During the post-intervention phase, we will prospectively assess all BC cases seen at ORCI following dissemination of the Tanzania National Cancer Treatment Guidelines and initiation of ORCI's implementation strategy. Data will be collected on clinical and demographic characteristics, treatments prescribed and received, and overall survival. Guideline concordance will be assessed using pre-specified criteria.

RESULTS We developed a novel methodology for evaluating the clinical effects of a guideline implementation strategy. We will measure guideline concordance using internationally recognized quality metrics and evaluate survival of BC patients at ORCI pre- and post-intervention. Preliminary results of the clinical data analysis will be presented.

CONCLUSIONS Improving adherence to standard treatment guidelines is an essential component of addressing global disparities in cancer mortality. Though several international groups have developed resource-stratified cancer treatment guidelines, little research has been published on best practices for guideline implementation, particularly in Africa. Evaluation of the clinical effect of guideline implementation strategies is key to establishment of best practices.

Mwachiro M

THE AFRICAN OESOPHAGEAL CANCER CONSORTIUM ESOPHAGEAL SQUAMOUS CELL CARCINOMA COLLABORATIVE STENTING INITIATIVE

Mwachiro M[1], Dawsey S[3,2], Lengel T[8], Fleischer D[4,2], Kaimila B[5,2], Mushi B[6,2], Kayamba V[7,2]
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MEETING ROOM 1

Wednesday
6 November 2019
14:40–16:30

INTRODUCTION Oesophageal cancer (OEC) is the eighth most common cancer worldwide and the sixth most common cause of cancer-related death, causing 400,000 deaths annually. More than 80% of deaths from EC occur in developing countries, with particularly high incidence and mortality in central Asia and the eastern coast of Africa. In sub-Saharan Africa, EC causes 21,000 deaths annually, with patients often dying of starvation or dehydration, unable to eat or swallow.

CONTEXT The AfrECC consortium has been partnering in collaboration with Boston Scientific, the largest US stent maker, to supply quality, FDA-approved self expanding metal stents (SEMS) to EC patients at a subsidized cost. Charges for placing stents currently vary in different hospitals, and these costs will remain, but the significant reduction in the cost of the stent devices will make the overall procedure much more affordable and will enable many more EC patients to have dignified palliation and life-sustaining nutrition. SEMS offer excellent palliation with minimal complications, and this reduction in cost for the devices should make stenting an option in all counties in the country. Capacity development As part of the collaboration, there will be technology transfer to African endoscopists and health workers. This will entail training in stent placement and care and follow-up of patients who get these stents. AfrECC is now working closely with in country professional societies, Tenwek Hospital, Boston Scientific, American Society for Gastrointestinal Endoscopy (ASGE) the Clinton Health Access Initiative, University of California in San Francisco (UCSF), The American Cancer Society (ACS) and other international collaborators to develop training curriculum and quality control mechanisms for larger scale SEMS placement training of surgeons and gastroenterologists who currently perform endoscopy. There have been stent training in Kenya, Tanzania, Zambia and recently Malawi.

Mwaiselage J

P184 | COMPARATIVE IMMUNOLOGICAL PROFILING OF AFRICAN ENDEMIC AND EPIDEMIC KAPOSI'S SARCOMA PATIENTS REVEALS THE PRIMARY ROLE OF KSHV IN PATHOGENESIS

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES Kaposi's sarcoma (KS)-associated herpesvirus (KSHV) is etiologically linked to all KS forms but mechanisms underlying KS development are unclear. The high incidence of KS in HIV-1+ individuals, implicates immune dysregulation in co-infection; however, lack of in-depth characterization of KSHV immune responses in African endemic-KS makes the pathogenetic role of HIV-1 unclear. The study objective was to investigate the HIV-1 and KSHV roles in viral-nucleic-acid detection, antibody and cytokine responses in PCR confirmed epidemic-KS and endemic-KS patients, and non-cancer controls from sub-Saharan Africa.

METHODS A sample size of 200 subjects was estimated for this study. Standardized questionnaire was used to collect socio-demographic and disease information. Skin punch biopsy, 10ml blood and buccal swab specimens were collected from the subjects. KSHV viral-DNA (vDNA), total anti-KSHV antibody, KSHV-neutralizing antibody (nAb) and cytokines were quantified. ANOVA and Mann-Whitney tests were used to assess differences between groups where P-value <0.05 was considered significant.

RESULTS A total of 219 patients were recruited for the study. The mean age of the of the epKS, enKS, HIV- controls and HIV+ controls were 38.1 years, 46.7 years, 43.3 years and 38.8 years, respectively. Similarly, the mean CD4 counts in cells/μL for epKS, enKS, HIV- controls and HIV+ controls were 290, 808, 684, 447, respectively. Consistently, KSHV-vDNA was detectable in tumours but variably in plasma and PBMCs of KS patients. Consistent with elevated antibody-associated cytokines (IL-6, IL-5 and IL-10), total and nAb titers were higher in epidemic-KS and endemic-KS patients than in controls ($P<0.05$). Despite HIV-1 co-infection in epidemic-KS, total and nAb titers were similar between epidemic-KS and endemic-KS patients ($P=0.3$).

CONCLUSIONS Detection of similar antibody and cytokine responses in epidemic-KS and endemic-KS patients suggest that KSHV drives KS pathogenesis, whereas HIV-1 co-infection exacerbates and accelerates KSHV pathogenesis and KS development.

Mwenda V

ESTABLISHING A NATIONAL POPULATION-BASED CANCER REGISTRY IN A DEVOLVED HEALTHCARE SETTING: THE KENYA NATIONAL CANCER REGISTRY (KNCR) EXPERIENCE

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MEETING ROOM 4

Friday
8 November 2019
08:30–10:00

OBJECTIVE As part of cancer prevention and control strategy, Kenya has prioritised cancer registration to inform policy and guide control efforts. We describe the process of setting up the first, nationally representative, population-based cancer registry in Kenya.

METHODS We carried out Concept Mapping, bringing together stakeholders under the umbrella of the cancer registration, surveillance, research, monitoring and evaluation technical working group (TWG) of the National Cancer Control Programme (NCCP) and the National Cancer Institute of Kenya (NCIK). We defined reporting structural and legal frameworks, catchment population and the roles and responsibilities of the two levels of government.

RESULTS A national, population-based cancer registry; the Kenya National Cancer Registry (KNCR); was set up with a secretariat at the NCIK. CanReg5 was chosen as the cancer registration and reporting tool for KNCR; a customized database structure with Kenyan counties, sub-counties and health facility codes was created. A devolved structure for the registry was selected; twelve regional cancer centres will host regional registries, which feed into the KNCR. The national institutions (NCCP and NCIK) will carry out training and technical support, while counties employ registrars and equip the regional registries. Cancer registrars from half of the target counties have already been trained. Private institutions carrying out cancer diagnosis and/or treatment will be given technical assistance to start hospital-based cancer registries that feed into the KNCR. The KNCR national secretariat is responsible for data validation, merging and calculation of the national estimates. The system was launched in March 2019; the first nationally representative cancer data is expected in the third quarter of 2019.

CONCLUSIONS Establishing a national population-based registry is challenging in a devolved system of healthcare provision; involving stakeholders early is key in forging partnerships and promoting ownership of cancer reporting by regional units.

Nabbanja H

P196 | NURSES' PERCEPTION TOWARDS REPORTING CHEMOTHERAPY ADMINISTRATION ERROR: A CASE STUDY OF UGANDA CANCER INSTITUTE

Nabbanja H[1], Nakate G[2]
[1]Uganda Cancer Institute, [2]Aga Khan University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cancer is at an increase worldwide with 14.1 million new cases per year. By 2030, over 30 million people will be affected and the burden will be more in developing countries. Oncology nurses have a major role in chemotherapy administration, although the growing number of cancer patients leads to increased workload to the nursing staff creating an environment susceptible to chemotherapy administration errors. Supporting nurses to voluntarily report chemotherapy administration errors is very crucial and improves patients' care therefore the objective of this study was to assess nurses' perceptions towards reporting chemotherapy administration errors and determine barriers towards reporting these errors at Uganda Cancer Institute (UCI).

METHODOLOGY This was a descriptive cross-sectional study that used quantitative methods. We purposely selected 56 nurses who directly administered chemotherapy for at least five years. Among them, a random sample of 44 nurses was selected and data collected in December 2018. The tool for data collection was a structured questionnaire that consisted of two sections; demographic data of participants and questions about chemotherapy errors with a five linkert scale.

RESULTS A total of 44 questionnaires were returned; most of the participants (68.2%) were females, 54.5% were registered nurses and 79.5% had administered chemotherapy for a period of 5–10 years. All nurses knew what a chemotherapy administration error meant and 77.3% had ever made at least an error during chemotherapy administration. 79.5% of the nurses agreed that errors affect patients in various ways, and it was important to report them however, 81.8% feared to report these errors because of consequences from reporting them. 79.5% of the participants reported fear as the major barrier towards reporting chemotherapy errors and 86.4% of the participants agreed that UCI had no adverse events report forms to chemotherapy errors, hence hindering reporting.

CONCLUSION While UCI nurses reported barriers towards reporting, it was observed that they had good perceptions towards reporting chemotherapy administration errors despite the various expected consequences towards reporting. This indicates that UCI should establish a patients' safety committee that would set up a standardised approach for reporting chemotherapy administration errors. Risk management strategies should be embraced by conducting regular continuous education programs about proper chemotherapy administration and train chemotherapy verification nurses so as to ensure that correct chemotherapy dose is delivered to the correct patient by the correct route and at the correct time.

Naidoo K

LB044 | DESCRIPTIVE EPIDEMIOLOGICAL STUDY OF HEAD AND NECK CANCERS AT A SINGLE INSTITUTION IN SOUTHERN AFRICA.

Naidoo K[1]
[1]Tygerberg Hospital

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

INTRODUCTION Head and Neck Cancers (HNCs) constitute a major public health concern worldwide. The incidence is approximately two times more in less-developed regions as compared to more developed regions. The estimated incidence in sub-Saharan Africa is 27593 per 100000 with a cumulative risk of 0.66. We evaluated patient demographics, risk factors, tumours characteristics, prognostic factors, disease stage, treatment intent and treatment modality in a cohort of patients with HNC in Cape Town, SA.

METHODS Records of all HNC patients that presented to Tygerberg Hospital oncology department between 1 January 2015 and 31 December 2017 were reviewed. The following variables were described: patient demographics, which include age, sex, HIV status, and socio-economic status as well as tumour characteristics, risk factors, treatment intent and treatment modalities.

RESULTS Data was collected from 854 patients seen between 2015 and 2017. There were 603 (71%) male and 251 (29%) female. The male to female ratio was 2.4:1. The age range was 10–89 years (median age 58 years). Smoking was a risk factor in 737 (86.3%) and alcohol in 634 (74.2%) of patients. Eleven patients (2.22%) were HPV positive, of these 73.68% were in the oropharynx The most common site was the oral cavity (n=320) and the most common sub-site was the anterior tongue (n=137). Eleven patients had two separate primaries at the time of diagnosis. In total, 466 patients (53.87%) presented with locally advanced, stage IVA disease.

CONCLUSIONS The median age of diagnosis, the most predominate primary site; histological subtype and stage at presentation were consistent with that reported in the literature. The incidence of p16 positive oropharyngeal lesions differs greatly from the changing worldwide etiological trends of SCC of the oropharynx.

Nakaganda A

EXPERIENCES AND SUPPORTIVE CARE NEEDS OF CANCER PATIENTS IN UGANDA: FACTS BEHIND THE FIGURES

Nakaganda A[1], Mbarusha I[1], Solt K[2], Nalukenge W[3], Orem J[1]
[1]Uganda Cancer Institute, [2]American Cancer Society, [3]Medical Research Council

MEETING ROOM 3

**Wednesday
6 November 2019
13:30–14:30**

BACKGROUND Due to increasing cancer incidence and longer survival, cancer care has evolved from focusing on survival to maintaining and improving quality of life. This makes supportive care a priority for effective/efficient cancer care, however supportive care needs have not been adequately met for cancer patients in Uganda.

OBJECTIVES To explore and document patients' experiences of seeking cancer treatment in Uganda to inform the development of navigation programs at Uganda Cancer Institute.

METHODS We conducted a qualitative study over a period of 7 months (September 2017–March 2018). Seventy-three adults (patients and health workers) participated in the study. Purposive/Maximum variation sampling was used to recruit participants from a wide range of experience. Two experienced researchers conducted the in-depth interviews (at Uganda Cancer Institute and place of work) and Focus Group Discussions. Thematic Analysis was used to analyze the data.

RESULTS Themes that emerged include delayed diagnosis due to lack of awareness/knowledge about cancer symptoms; healthcare professionals' low suspicion towards cancer symptoms/signs; inadequate facilities for cancer diagnosis; cancer screening policy implications; and myths about cancer/disease/health. Psychological needs also came out very strongly due emotion distress of knowing the cancer diagnosis, concerns about dying, disclosure issues and stigma/discrimination. Difficulties in getting admitted to the cancer centre; retrieving medical records; locating for available services; and accessing the senior oncologists caused enormous delays in initiating/receiving cancer treatment. While corruption/bribery; language barriers and problematic/traumatic interactions with medical professionals led to frustrations and emotional distress. Treatment needs included, recurrent drug stock-outs, unaffordable drugs, sourcing for investigations outside the cancer centre; poor quality of drugs; medical/drug errors and high cost of radiotherapy treatment.

CONCLUSION While cancer diagnosis/treatment services in Uganda are limited, this research suggests that interventions like navigation programs and referral guidelines could address some of the supportive care needs to enhance timely/efficient cancer care that could ultimately improve patient satisfaction and medical outcomes for cancer patients in Uganda.

PATHOLOGY: THE ROLE OF TELEMEDICINE IN MANPOWER DEVELOPMENT

Namazzi R
THE TCH GLOBAL HOPE EXPERIENCE : THE RECIPIENT COUNTRY EXPEREINCE

Namazzi R[1], Wasswa P[3], Munube D[2], Kasirye P[2], Kansiime R[4], Lubega J[3]
[1]Makerere University, [2]Mulago National Referral Hospital, [3]Baylor College of Medicine/Texas Children's Hospital, [4]Baylor Center of Excllence

MEETING ROOM 4

Tuesday
5 November 2019
09:00–11:00

More than 80% of children diagnosed with cancer live in developing countries. In contrast to developed countries where overall survival for children with cancer ranges between 70–90%, almost 70% of children in developing countries die from their disease. Several factors including the lack of dedicated paediatric oncology services, shortage of health workers trained in the management of childhood cancers, treatment related mortality, malnutrition and treatment abandonment. As of 2016, there was only one trained paediatric oncologist at the Uganda cancer Institute, the oldest and largest cancer treatment centre in Uganda. There was dire need to develop local capacity to diagnose and treat childhood cancers in Uganda. Pragmatic approaches to deal with the shortage of trained paediatric oncologists needed to be devised. The Global HOPE approach. To address the need for paediatric oncologists in Uganda, the idea of a Paediatric Haematology and Oncology fellowship training was conceived. The objective was to develop specialised training program that was comparable to the west, but was cost effective. The Paediatric Haematology and Oncology Program is a collaboration between Makerere University, Mulago National Referral Hospital, the Uganda Ministry of Health and Baylor College of Medicine (BCM) /Texas Children's Hospital. The program has both local and visiting international faculty from BCM to train the fellows. To improve the fellows learning experience, approaches such as black board, videoconferences, and tumour boards are key training strategies. Lectures and information are shared online between fellows in Uganda and experts in the USA. This approach has been successful. Eight specialists have graduated from the program, and are currently leading Haematology and Oncology programs in their countries. The program currently has 6 on-going fellows, all from East Africa, and 6 more from 4 countries in Africa have enrolled for the academic year starting September 2019.

Nassone E

P185 | GASTROINTESTINAL NON HODGKIN LYMPHOMA WITH DISTINCT ENDOSCOPIC FINDINGS IN HIV POSITIVE PATIENT: CASE REPORT

Nassone E[1], Cumbana R[1], Loforte M[1], Mondlane L[1], Samo Gudo E[1], Modcoicar P[1]
[1]Hospital Central de Maputo

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE Lymphomas are solid tumors of the lymphatic system and are divided into Hodgkin's and non-Hodgkin lymphoma. Primary gastrointestinal lymphomas are a rare neoplasm and represent 1% to 4% of tumors of the digestive tract, and 10 to 15% of all non-Hodgkin lymphomas. We present a case of gastrointestinal non-Hodgkin lymphoma of the stomach and colon in a HIV positive patient.

METHODS 34 years old female patient, HIV positive on therapy for 7 months; very irregular taking, presented with recurrent epigastric pain ongoing for 3 months and hematemesis with one day of evolution and dizziness. Clinical laboratory tests showed her CD4 count was 405 cells/mm³, and abdominal ultrasound revealed hepatic steatosis. She underwent endoscopic exams: upper digestive endoscopy revealed oesophageal, gastric and duodenal ulcers in probable context of HIV disease; Total colonoscopy showed in the transverse and ascending colon presence of 10 mm polypoid lesions, with irregular surface; cecum mucosa with high erythematous irregular lesions, measuring 20 mm in probable HIV context

RESULTS Histopathological examination showed gastric mucosa distended by proliferation of lymphoid cells of intermediate to large size and colon mucosa extensively infiltrated by malignant neoplasm of large cells, in diffuse pattern. Immunohistochemistry study showed positivity for CD45 and CD20. A diagnosis of Non-Hodgkin lymphoma of the stomach and colon was made.

CONCLUSIONS The aim is to illustrate an unusual form of primary non-Hodgkin's lymphoma in HIV positive patient who presented distinct endoscopic findings corresponding to the same entity. This diagnostic suspicion should always be present in cases of digestive haemorrhage in immunosuppressed patients.

Ndiaye S
COMMUNICATION AND STIGMA

Ndiaye S
[1]Hopital Aristide le Dantec

MEETING ROOM 2

Tuesday
5 November 2019
09:00–11:00

Effective communication is essential for the optimal delivery of healthcare services and is a central component of any National Cancer Control Strategy. Communication covers the whole disease trajectory encompassing prevention, diagnosis, treatment, survivorship, end-of-life care, and family bereavement. This symposium intends to enhance overall communication knowledge and skills of physicians, nurses, and allied health professionals working in oncology in Africa. Dr Asuzu will build the argument as to how communication is essential to improving cancer outcomes in Africa. She will present on the importance of distress screening as a communication tool in oncology. Drs Lounsbury and Henry will present the results of a survey of 118 professionals on communication of a cancer diagnosis in African oncology settings. Sokhna Ndiaye will further explore the role of stigma in African cancer communication and treatment outcome. Dr Ntizimira will present clinical cases outlining how a family systems approach and paying attention to family dynamics is essential to enhance communication.

Ndiaye M

P041 | TRANSCRIPTOME ANALYSIS DESCRIBING IMMUNITY AND METABOLISM GENES IN PERIPHERAL BLOOD MONONUCLEAR CELLS OF CERVICAL CANCER PATIENTS TO SENEGAL

Ndiaye M[1]

[1]Université Cheikh Anta Diop de Dakar, [2]Institut Pasteur de Dakar, [3]Conservatoire Nationale des Arts Et Métiers de Paris, [4]Genopole de Paris

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

Cervical cancer (CC) is a multifactorial disease and it was established that the main aetiologic agent is the Human Papillomavirus (HPV). Despite the implementation of cervical uterine Pap smear (HPV) screening and vaccination to treat precancerous lesions and the early management of this disease, cervical cancer is still a public health problem. The emergence of novel cervical cancer biomarkers is promising enough to reduce the cost of prevention and improve the specific detection of high-grade cervical lesions and early-stage cervical cancer, implying an improvement in the efficacy of cervical cancer, cancer treatment management. The objective of this study will be to identify PBMC gene expression profiles and to investigate potential biomarkers through the analysis of significantly altered signaling pathways from patients with cervical cancer, cervical intraepithelial neoplasia (CIN 1) and healthy control subjects (CTR) using Illumina technology. The Illumina BeadChips were used for a complete genome-wide transcript profiling of whole blood from 31 CC patients, 27 CIN and 29 CTR. Differentially expressed genes (DEG) were identified by comparing the mean normalised expression for each gene in the different sample groups, using the Student t-test. P-values were adjusted to control the False Discovery Rate (FDR 5%). A hierarchical clustering was performed on the 3,435 significant genes and DEG at significant level between patients and the clusters generated were analyzed using Gene Ontology (GO) in String protein database to identify biological processes. Few differences were observed between CIN patients and CTR with only 129 upregulated and 130 downregulated genes in CIN patients. In contrast, 1,569 genes were overexpressed in CC patients including 1,404 and 1,303 genes respectively from the comparisons with CIN patients and CTR. We identified in CC patients compared to CTR a high expression of a spectrum of genes involved in the immunity of CC patients and a weak expression of genes related to metabolism. Microarray data were validated by RT-qPCR in a set of ten genes showing a high degree of correlation.

CONCLUSION This enrichment of genes involved in immunity overexpressed in CC patients could be related to their particular immune state regarding cervical cancer and the observation of genes related to metabolism under-expressed in CC patients could reflect the rewiring of the metabolism processes in cancer. Our study highlighted several new genes that could contribute in the identification of innovative clinical biomarkers for diagnostic procedures and therapeutic interventions.

GROWING YOUR CAREER IN AFRICA: THE OPPORTUNITIES AND INNOVATIVE STRATEGIES FOR OVERCOMING THE LIMITATIONS

Ndlovu N

MY EXPERIENCES AND INNOVATIVE STRATEGIES EMPLOYED FOR SUCCESS IN AFRICA AS A CLINICIAN

Ndlovu N[1]
[1]University of Zimbabewe College of Health Sciences

PLENARY VENUE

**Thursday
7 November 2019
10:30–11:30**

Globally, clinicians working in cancer management have many challenges and for those in Africa it is well known that the same challenges can be multiplied with many more new regional specific ones to be contended with. However, without doubt working in resource poor settings within the continent of Africa can still result in excellent job satisfaction, provided the opportunities for professional contribution are seen within all the perceived negatives and addressed. My choice of training in clinical oncology was driven by the curiosity to find out more about a field that was less considered. I purposed to find out why cancer patients seemed to be less considered within the health system than those with infectious and other diseases yet there was so much prolonged suffering with cancer. Why was there so little done for such patients? Why was there so little known? Why was this disease regarded with so many mystiques? There was what appeared to be denial of them as just another patient group needing attention in the same way as all others do. I dared to venture and found that answers existed but had not yet become a reality in most countries in Africa. The common challenges of lack of treatment infrastructure, personnel, funding, acceptance of the disease itself and many others were what defined oncology in Africa. Since most of these challenges are common to most countries, strategies to address them need not be just local but can be complemented by regional and international involvement. Governments in partnership with international collaborators need to work towards the successful implementation of cancer care. Experiences throughout the journey of starting from near to nowhere to providing a cancer treatment service and future dreams will be presented.

Ndlovu B

P384 | HISTOLOGICAL SUBTYPES AND ANATOMICAL SITES OF NON-MELANOMA SKIN CANCERS IN SOUTH AFRICA, 1993–2014

Ndlovu B[1,2,3], Sengayi M[2,3], Kuonza L[1,3], Singh E[2,3]
[1]South African Field Epidemiology Training Program, [2]South African National Cancer Registry, [3]University of the Witwatersrand

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Non-melanoma skin cancers (NMSCs) are the most frequently diagnosed cancers worldwide. The NMSCs comprise of basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and other rare skin cancers (RSC). This study aims to describe NMSCs distribution of histological subtypes and anatomical sites by sex and population groups in South Africa.

METHODS NMSCs reported to the pathology-based National Cancer Registry (NCR) from 1993–2014 were analyzed. Proportions and frequencies were used to describe NMSCs by ethnicity and anatomical site.

RESULTS Out of 1220964 pathology-diagnosed cancers reported to the NCR in the study period, 27% (n=330162) were NMSCs. The proportion of males with NMSCs was significantly higher (58%) compared to females. Caucasians were over-represented in both females (79%, n=106766) and males (81%, n=156058), followed by coloured, asian and black populations. The proportions of histological subtypes of NMSCs in asian, coloured and white populations (n=291999) were; BCC (73%), SCC (26%), then RCS (1.5%). The proportions of histological subtypes of NMSCs in blacks (n=24141) were; SCC (48%), BCC (37%), then RSC (15%). The anatomical site of distribution of NMCSs in the non-black populations (asian, coloured, and white) (n=162462) showed the following proportions; head and neck (59.0%), upper limbs (16.4%), trunk (13.5%), lower limbs (10.3%), and overlapping sites (0.9%). The black population (n=15429) showed the following proportions; head and neck (54%), trunk (22%), lower limbs (13%), upper limbs (11%), and overlapping sites (<1%).

CONCLUSION Men and Caucasians are more susceptible to NMSCs. The non-black populations are more susceptible to BCC, but blacks are more susceptible to SCC. NMSCs frequently occur on exposed skin areas such as head and neck, and upper limbs for non-black populations. In black populations however, NMSCs commonly occurred on the trunk and lower limbs. Risk factors for NMSCs in black populations might be unique, requiring further exploration.

TUMOUR BOARDS IN AFRICA: HOW TO OPTIMISE THE FULL PARTICIPATION OF ALL MEMBERS OF THE MULTIDISCIPLINARY TEAM

Ndlovu N
VIRTUAL TUMOUR BOARDS IN AFRICA: AN EMERGING VITAL TOOL

Ndlovu N[1]
[1]University of Zimbabewe College of Health Sciences

PLENARY VENUE

Wednesday
6 November 2019
10:30–11:30

Tumour boards add positive value to patient management in many ways. The goal of these boards is to determine the best possible cancer treatment and care plan for an individual patient through provision of a collaborative, multidisciplinary approach to cancer care that brings together oncology, radiology and pathology and other specialists to aid in decision-making and improve care coordination. In Africa, unlike in high-income regions, this concept lies largely unexplored due to a number of prevailing circumstances. Many African centres work in relative isolation with limited access to up-to-date published literature, international meetings, and expert opinion. Virtual tumour boards can be a vital tool in overcoming these limitations since many isolated centres can simultaneously discuss and share knowledge, management options and plans for better patient outcomes. A number of limitations to mounting these virtual platforms can be encountered. These include limited Internet access as experienced by some centres in resource poor settings, resulting in poor connectivity that can compromise communication and sharing of images. Different time zones can result in difficulty on choice of time to host meetings. A rotational time roster may assist to ensure that all participating centres have some meetings at a time convenient to them. Feasibility to use telemedicine tools for case discussions and education in radiation oncology in virtual tumour boards has been established in Africa. It remains for this tool to be further explored for wider utilisation and expansion into other educative functions such as e-contouring.

Ndumbalo J

P385 | DEVELOPMENT OF TANZANIA'S FIRST NATIONAL CANCER TREATMENT GUIDELINES

Ndumbalo J[1], Mwaiselage J[1], Meena S[1], Mvungi N[1], Van Loon K[2], Buckle G[2]
[1]Ocean Road Cancer Institute, [2]University of California

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE Tanzania and other low-income countries (LICs) face a growing burden of cancer and a pressing need to strengthen cancer care delivery systems. The overall case fatality from cancer is disproportionately higher in LICs, and adherence to standard treatment guidelines is a critical component of addressing disparities in outcomes. In 2017, Tanzania's Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC) commissioned leaders at Ocean Road Cancer Institute (ORCI) to develop Tanzania's first National Cancer Treatment Guidelines.

METHODS In 2017, we convened stakeholders to form a technical working groups (TWGs) which were organised according to disease-specific categories and comprised of representatives from relevant disciplines, including surgeons, gynecologists, pediatricians, general medical officers, radiologists, pathologists, oncologists, social workers, dieticians, and nurses. Each TWG conducted a review of current literature and prepared a summary of the epidemiology, diagnostic and staging procedures, options for management with therapies currently available in Tanzania, and essential medicines. In 2018, following multiple revisions and meetings of each TWG, the guidelines underwent external review with two oncologists from Tanzania participating in in-person consultations with disease-specific experts at UCSF.

RESULTS Guidelines were developed for a total of 70 diseases. The Guidelines are intended to be facilitative, enabling, and foundational, providing bases for the attainment of high standards in the management of cancers in a resource-constrained setting. Guidelines were formatted for dissemination in both hard copy and in soft copy using the AgileMD platform.

CONCLUSIONS In 2019, Tanzania's MOHCDGEC will systematically disseminate its first-ever National Cancer Treatment Guideline. Following dissemination, MOHCDGEC will implement a monitoring and evaluation strategy that ensures and promotes the use of the Guidelines in both public and private sectors. We are working on development of a theory-informed implementation strategy that focuses on education, workflow modifications, and behavior change, which will be piloted at ORCI.

Newman L

HEREDITARY SUSCEPTIBILITY FOR TRIPLE NEGATIVE BREAST CANCER ASSOCIATED WITH WESTERN SUB-SAHARAN AFRICAN ANCESTRY: RESULTS FROM AN INTERNATIONAL SURGICAL BREAST CANCER COLLABORATIVE

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MEETING ROOM 3

**Wednesday
6 November 2019
13:30–14:30**

OBJECTIVE(S) Breast cancer mortality is higher in African American (AA) compared to White American (WA) women, and this disparity is partly-explained by a two-fold higher incidence of triple negative breast cancer (TNBC). The role of germline genetic factors in these differences is unclear.

METHODS A biospecimen cohort of 3315 breast cancer cases were used for this study. Subsets of the total numbers (760 AA; 962 WA; 913 West African/Ghanaian; 252 East African/Ethiopian) were analyzed for genotypes of candidate alleles. Healthy controls were also genotyped, matching 20% of cases, to measure associations with overall breast cancer risk and TNBC in particular. All specimens were assembled through a surgically-maintained international biorepository. Global ancestry was quantified as well and tested for associations with tumor phenotype.

RESULTS TNBC frequency was highest in Ghanaian and AA cases (48% and 44% respectively; $p < 0.0001$) and lowest in Ethiopian and WA cases (17% and 24% respectively; $p < 0.0001$). TNBC cases had significantly higher West African ancestry than non-TNBC ($p < 0.0001$). Frequency of the Duffy-null allele (rs2814778; an African ancestral genotype adopted under selective pressure as protection against malaria pathogens in West Africa) was non-significantly associated with overall incidence ($p = 0.078$) but significantly associated with TNBC-specific risk ($p = 0.0004$), quantified West African Ancestry ($p < 0.0001$) and was more common in AA, Ghanaians, and TNBC cases. Additionally, rs13000023 (previously associated with breast cancer risk) had borderline significant association with TNBC-specific risk in Ghanaians ($p = 0.049$).

CONCLUSIONS West African ancestry is strongly correlated with TNBC status, as well as germline variants related to breast cancer risk. Specifically, the Duffy-null allele (previously shown to be associated with pro-inflammatory chemokines implicated in tumor pathogenesis) accounted for TNBC risk in our cohort.

Ngaiza A

P278 | EFFICACY OF AN INTENSIVE, ULTRASOUND-GUIDED FINE NEEDLE ASPIRATION BIOPSY TRAINING IN TANZANIA

Ngaiza A[1], Ng D[2], Vuhahula E[1], Balassanian R[2], Kelil T[2], Lee A[2]
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NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Fine needle aspiration biopsy (FNAB) is a cost-effective diagnostic technique with broad applications in low-resource settings. The addition of ultrasound-guidance (USG) allows for targeting of non-palpable lesions and ensures accurate sampling. A major limitation of FNAB is that the ability to perform accurate and adequate sampling is dependent on formal training. An initial workshop for training in USG-FNAB was hosted in Tanzania by Muhimbili University of Health and Allied Sciences (MUHAS) in September 2017. We aimed to assess the efficacy of a repeat intensive USG-FNAB workshop in Tanzania in January 2019.

METHODS A team of pathologist and radiologist trainers led a 3-day workshop involving lectures and hands-on practicum, inviting new and returning participants. Pre- and post-workshop surveys on prior experiences with USG-FNAB were administered to participants. In addition, participants underwent pre and post-workshop practical assessments on USG-FNAB technique and slide smearing skills. McNemar's chi-squared test was applied to test if there were any significant changes from pre to post-workshop. All the analyses were performed by R.

RESULTS A total of 32 participants (pathologists, radiologists, and residents) enrolled. Participants significantly improved in nearly areas of measured assessment. After training, participants were able to apply an appropriate amount of material onto the slide, divide a sample using acceptable technique, successfully create a smear using correct technique, measure a lesion in 3 dimensions using the ultrasound, and successfully perform a USG-FNAB using parallel and perpendicular approaches with statistically significant improvements ($p < 0.001$). No improvement was noted in ability to identify a lesion by USG ($p = 0.48$).

CONCLUSION An intensive practical workshop was an effective method for teaching USG-FNAB and slide smearing skills in Tanzania. This workshop demonstrated the efficacy of dedicated tutorials for specialised skills transfer for capacity-building for cancer diagnostics amongst pathologists and radiologists in a university setting in East Africa.

Ngoka O

P197 | POCKET GUIDES OVERCOMING CHALLENGES IN CLINICAL GUIDELINE IMPLEMENTATION BY PAEDIATRIC ONCOLOGY STAFF IN UPENDO WARD, DAR ES SALAAM, TANZANIA

Ngoka O[1], Trish S[1]
[1]Muhimbili National Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Muhimbili National Hospital houses the Tanzanian national children's cancer centre on Upendo Ward. Significant efforts have been made to create detailed locally appropriate supportive care guidelines for both nurses and doctors. However, the printed textbooks were expensive to print, bulky to routinely carry and regularly 'disappeared' from the ward. Rapid staff turnover (interns change every week!) also made its dissemination difficult. Due to hospital IT issues the document was not available on the ward computers. Therefore, despite their creation they were not easily accessible or routinely implemented.

OBJECTIVES It was critical to find a solution to this information implementation issue. Gaps in knowledge and understanding of complex oncology issues have a direct impact on the survival of children treated on Upendo Children's oncology ward.

METHODS The supportive care guidelines were reviewed and updated. Two summary pocket sized guidelines were developed – one for nurses and one for junior doctors – each contained all paediatric oncology clinical essentials. The pocketbooks were printed on water resistant cards. Every nurse and doctor were instructed as to its content and given a personal copy.

RESULTS All staff – including staff rotating for short time periods – were educated on the use of the pocketbook and received a copy. Communication and collaboration between nurses and doctors improved significantly. Nurses feel more confident advising junior doctors to follow these printed and accessible guidelines. This has brought the clinical team closer together. Understanding around the management of a range of paediatric oncology conditions and emergencies has improved significantly.

CONCLUSION Creating locally relevant guidelines are very important but thought must also be given to how this information will be imparted to staff. The lightweight but cheap and durable pocket-guides have bridged this very significant gap between knowledge generation and clinical application. They also prompt guidelines to be regularly reviewed and updated with each new printed edition.

Ngoma T

P260 | M-PALLIATIVE CARE LINK: IMPROVING SYMPTOM CONTROL AND INFORMATION EXCHANGE AMONG SPECIALISTS AND LOCAL HEALTH WORKERS TREATING LATE STAGE TANZANIAN CANCER PATIENTS

Ngoma T[1], Miesfeldt S[2], Mmbaga E[1], Ngoma M[4], Mushi B[1], Kumar V[3], Mahuna H[4]

[1]Muhimbili University of Health and Allied Sciences, [2]Maine Medical Centre, [3]Ocean Road Cancer Institute, [4]Dimagi

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Nearly forty thousand cancer patients in Tanzania who would benefit from palliative care do not get that service. Most of these patients die with agonising pains and other uncontrolled symptoms. The lack of access to effective palliative care in Tanzania is a public health problem which needs to be addressed urgently. In this study our hypothesis is that since mobile phone use is ubiquitous in Tanzania, it can be used to improve access to high quality palliative care by using a mobile device-based symptom assessment/control communication system (m-Palliative Care Link; mPCL) which links palliative care specialists to patients and caregivers to reduce symptom burden in late-stage cancer patients.

METHODS Study design: A cross sectional mobile device feasibility and usability study where a mobile platform was created, and its usability tested among late stage cancer patients. Study population: All late stage cancer patients seen at Ocean Road Cancer Institute (ORCI). Study area: The study is conducted in Dar es Salaam. Data collection procedures: An electronic version of APCA POS (hereafter named POS) was adapted as an electronic form for a patient and caregiver to self-administer on the patient's study-supplied mobile device. All existing APCA POS measures, including 7 patient-directed items and 3 caregiver questions were used.

RESULTS We have so far recruited 20 study patients and 21 controls out of the intended total number of 90 patients (45 study patients and 45 controls) to be recruited. The collected qualitative data from these patients will be transcribed and translated by experienced research assistants after completion of the study. The data will undergo software assisted coding and analysis using NVivo® and qualitative techniques to generate thematic content analysis. The cost effective analysis of the platform will be evaluated.

CONCLUSION This mPCL study promises to remotely assess symptom control needs of late-stage patients and the adjustments of medications and doses required using a mobile device-based symptom assessment/control communication system (m-Palliative Care Link; mPCL) which links palliative care specialists to patients/caregivers to reduce symptom burden in late-stage. Since the the mPCL approach relies on existing technology, resources and personnel it is expected to be sustainable, scalable and cost effective for use in patients with cancer and other chronic diseases.

Nhantumbo V

P136 | PERFIL CLÍNICO EPIDEMIOLÓGICO DE PACIENTES COM LEUCEMIA NO SERVIÇO DE HEMATO-ONCOLOGIA PEDIÁTRICA DO HOSPITAL CENTRAL DE MAPUTO

Nhantumbo V[1], Macoo A, Amodo F
[1]Hospital Central de Maputo

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

CONTEXTO A fraca qualidade de registo de base populacional limita o conhecimento da epidemiologia do cancro na idade pediátrica em países em desenvolvimento,sendo que as leucemias agudas constituem um importante factor de morbimortalidade neste grupo etário, existe a necessidade de melhorar os registos epidemiológicos, priorizar recursos, bem como melhorar a qualidade do serviço prestado a estes pacientes. O presente estudo têm como objectivo descrever o perfil clínico epidemiológico e evolução de crianças com diagnóstico de leucemia aguda num período de 5 anos no Hospital Central de Maputo.

METODOLOGIA Foi feito estudo retrospectivo, descritivo no qual foram analisados processos clínicos de 86 pacientes admitidos no serviço de Hemato-Oncologia Pediátrica do Hospital Central de Maputo com diagnóstico de leucemia aguda no período compreendido entre 1 de janeiro de 2011 a 31 de dezembro de 2015, tendo sido avaliadas variáveis relacionadas com a idade, sexo, classificação de risco, desfecho dos casos em relação a abandono, seguimento bem como as principais causas de mortalidade.

RESULTADOS A leucemia linfocitica aguda representou cerca de 82% com uma taxa de sobrevivência de 30% e a leucemia mieloide aguda representou cerca de 18% com uma taxa de sobrevivência de 0%.

CONCLUSÃO Os resultados obtidos neste estudo demostram que a leucemia linfocitica aguda considerada o tipo mais frequente, com alta taxa de mortalidade enquanto que a leucemia mieloide aguda sem chance de sobreviver, o diagnóstico precoce, a melhoria na classificação de risco através de melhoria das técnicas de diagnóstico, a melhoria do tratamento e dos cuidados de suporte iriam aumentar as taxas de sobrevivência.

Nkele I

HIV, SMOKING AND RISK OF HEAD AND NECK CARCINOMA IN BOTSWANA: A CASE-CONTROL STUDY

Nkele I[1], Ntloedibe T[1,2], Sadigh K[3], John O[1], Tapela N[1,4], Grover S[5,6,7], Dryden-Peterson S[1,3,8]
[1]Botswana Harvard AIDS Institute Partnership, [2]University of Botswana, [3]Brigham & Women's Hospital, [4]University of Oxford, [5]University of Pennsylvania, [6]Botswana-UPENN Partnership, [7]Princess Marina Hospital, [8]Harvard T.H. Chan School of Public Health

MEETING ROOM 4

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVE Incidence of squamous cell carcinoma of the head and neck (HNSCC) in Botswana has more than doubled over the past decade. We sought to assess association between HIV and other established HNSCC risk factors and the risk of developing HNSCC in Botswana.

METHODS As part of the Thabatse Cancer Cohort (TCC), we included patients presenting with HNSCC from 2010–2019 at four principal oncology treatments centres. Age (in 5-year categories) and sex matched controls (matched 4:1) were drawn from a 30-community random population sample including 12,600 rural and peri-urban residents. Conditional multivariable logistic regression was used to assess impact of HIV, smoking, and use of indoor solid fuels on HNSCC risk. Models adjusted for income and age (as continuous) to reduce risk of residual confounding.

RESULTS A total of 191 HNSCC cases were enrolled, including 166 (87%) males and 25 (13%) females. The median age was 59 years (IQR 49–67). The majority of cases (147, 79%) reported having ever smoked, and 67 (37%) of cases were HIV-infected at time of cancer diagnosis. In adjusted analysis, smoking was strongly associated with HNSCC risk, aOR 8.64 (95% CI 5.0 to 14.9 p<0.001). HIV infection was also significantly associated with risk of HNSCC, aOR 2.06 (95% CI 1.2 to 3.6). Current use of solid fuels was associated with increased HNSCC risk, aOR 1.74 (95% CI 0.99 to 3.1), but this finding did not reach statistical significance (p=0.055). Smoking is attributable for 71% of HNSCCs in Botswana.

CONCLUSIONS Smoking and HIV are important risk factors for HNSCC in Botswana, and the increasing use of tobacco, particularly among persons living with HIV, may account for the rise in HNSCC incidence. Exposure to indoor solid fuel use may also increase HNSCC risk, but the limited number of cases prevents firm conclusion.

Nsonde Malanda J

P261 | LES TROUBLES SEXUELS DES PATIENTS ATTEINTS DE CANCER DANS LE SERVICE D'ONCOLOGIE MEDICALE AU CHU DE BRAZZAVILLE

Nsonde Malanda J[1], Bambi C[1], Kimpamboudi Matondo A[1], Bambara A[1], Nkoua Mbon J[1]
[1]CHU /Universite Marien Ngouabi

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Trop souvent tabous, les difficultés sexuelles et l'intimité du couple restent rarement abordées par les patients et encore moins par les praticiens. Il semblerait que face à l'enjeu vital de la maladie, ce genre de préoccupation leur paraisse futile, voire honteux à aborder.

OBJECTIF Evaluer les troubles sexuels chez les patients atteints de cancer dans le service d'oncologie médicale.

MATÉRIEL ET MÉTHODES Il s'est agi d'une étude transversale prospective, couvrant la période du 1er Avril au 31 Juillet 2018. Tous les patients atteints de cancer âgés d'au moins 18 ans avec un status performans de l'OMS entre 0–2 ans ont été inclus.

RÉSULTATS Le trouble sexuel le plus retrouvé est celui du désir dans les deux sexes, puis celui de l'orgasme. La présence de certains troubles avait un lien avec la survenue du cancer (p<5). Près de 64,7% des femmes atteintes de cancer gynéco-mammaire et 22,5%, digestifs présentaient une dysfonction sexuelle. Les hommes par contre qui présentaient un grand nombre de troubles sexuels, étaient de cancers digestifs (47,6%), urogénitaux (22,6%), et des tissus mous (19%). La chirurgie-chimiothérapie (femmes: 42,2% vs 22% : hommes), la chimiothérapie (16,7% vs 21,4%), la chirurgie (16,7% vs 19%) constituaient en grande partie la prise en charge de ces patients.

CONCLUSION Il ressort de ce travail que, la fréquence des troubles sexuels chez les patients atteints de cancer dans le service d'oncologie médicale est de 98,4%. Il est important de tenir compte de ces troubles au cours de la prise en charge des patients cancéreux, leur fréquence et leur retentissent sur la qualité de vie quel que soit la période de l'évolution du cancer. La prise en charge de ces difficultés sexuelles nécessite une approche pluridisciplinaire entre oncologues, gynécologues, psychiatres et sexologues.

Ntekim A

P225 | A MODEL FOR IMPROVING HUMAN AND INFRASTRUCTURAL DEFICITS FOR ONCOLOGY CLINICAL TRIALS IN SUB-SAHARA AFRICA

Ntekim A[1], Sofoluwe A[1], Adepoju T[2], Kotila O[1], Adejumo P[1], Olopade O[3]
[1]University of Ibadan, [2]University College Hospital, [3]University of Chicago

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE There is higher mortality and morbidity from cancer in low and medium income countries (LMICs) compared with high income countries (HICs). Clinical trial activities have been partly responsible for the low mortality associated with cancer in HICs. Clinical trials are low in sub-Sahara Africa (SSA) due to poor infrastructure and death of experienced personnel to execute clinical trials. There is need to improve on clinical trial activities in order to find locally relevant evidence-based methods for cancer treatment in SSA. This report is on collaborative efforts to implement oncology clinical trials in Nigeria and can be a model for improving clinical trial facilities and personnel in SSA.

METHODS There was a site assessment of clinical trial facilities in four cancer centres in South West Nigeria using a check list comprising information on various aspects of clinical trial activities. The centres were The University College Hospital Ibadan, Lagos State University Teaching Hospital Ikeja, Obafemi Awolowo University Teaching Hospital Ile – Ife and Lagos University Teaching Hospital Idiaraba. The gaps identified were addressed using resources and funds sourced under the leadership of HIC institutions in collaboration with the local institutional management.

RESULTS Infrastructural and skills deficits identified were in areas of patients' care such as availability of standard clinical and research laboratories and diagnostic facilities, regular clinical equipment maintenance including regular calibrations, trained personnel for clinical trial activities (good clinical practice, ethical conduct of research and informed consent procedures), investigational products handling and disposals and lack of standard operating procedures for clinical activities. Interventions were instituted to address the observed deficits in the four sites. Extensive training on all aspects of clinical trial was provided. The sites are now well prepared to undertake clinical trials in oncology with the first trial starting very soon.

CONCLUSION Partnerships with institutions in HICs can successfully address infrastructural deficits for clinical trial implementation in LMICs. The HICs lead in sourcing funds and providing mentorship and training for LIC institutions towards improving facilities and manpower for clinical trials.

Ntizimira C

A PALLIATIVE CARE PHYSICIAN'S PERSPECTIVE ON COMMUNICATION IN THE CONTEXT OF AN AFRICAN MEDICAL ONCOLOGY PRACTICE

Ntizimira C[1]
[1]City Cancer Challenge Foundation

MEETING ROOM 2

Tuesday
5 November 2019
09:00–11:00

Effective communication is essential for the optimal delivery of healthcare services and is a central component of any National Cancer Control Strategy. Communication covers the whole disease trajectory encompassing prevention, diagnosis, treatment, survivorship, end-of-life care, and family bereavement. This symposium intends to enhance overall communication knowledge and skills of physicians, nurses, and allied health professionals working in oncology in Africa. Dr Asuzu will build the argument as to how communication is essential to improving cancer outcomes in Africa. She will present on the importance of distress screening as a communication tool in oncology. Drs Lounsbury and Henry will present the results of a survey of 118 professionals on communication of a cancer diagnosis in African oncology settings. Sokhna Ndiaye will further explore the role of stigma in African cancer communication and treatment outcome. Dr Ntizimira will present clinical cases outlining how a family systems approach and paying attention to family dynamics is essential to enhance communication.

Ntloedibe T

SOLAR EXPOSURE, HIV, AND RISK OF MELANOMA IN BOTSWANA: A CASE-CONTROL STUDY

Ntloedibe T[1,2], Nkele I[2], Sadigh K[3], Motswakae G[4], Golapkhan N[4], Grover S[4,5,6], Dryden-Peterson S[2,6,7]
[1]University of Botswana, [2]Botswana Harvard AIDS Institute Partnership, [3]Brigham and Women's Hospital, [4]Princess Marina Hospital, [5]University of Pennsylvania, [6]Botswana-UPENN Partnership, [7]Harvard T.H. Chan School of Public Health

MEETING ROOM 3

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVE The estimated incidence of malignant melanoma in Botswana is higher than among African Americans in the United States. We sought to assess whether solar radiation or HIV could account for the observed increased incidence of melanoma in Botswana.

METHODS Cases were drawn from the Thabatse Cancer Cohort (TCC) from 2010–2017. Age-matched controls (10:1) were drawn from two sources: 1) participants in a large random population sample from rural/peri-urban communities and 2) non-melanoma and non-cutaneous cancers in TCC. We utilised exact conditional logistic regression to compare characteristics of cases and the two groups of controls.

RESULTS Thirty cases of melanoma were enrolled, including 17 (57%) women and 13 (43%) men. The median age was 64.6 (IQR 49.1 to 71.5), and 6 (22%) were HIV-infected. Twenty-eight (93%) cases reported Tswana ethnicity. The majority (63%) presented with advanced disease (stages III/IV), and 79% were acral. Eleven (37%) patients reported spending >4 hours daily in the midday sun without shading head and arms. Compared with community controls, no significant associations were identified for HIV status (OR 0.6, 95% CI 0.17 to 1.57, p=0.34) in patients with melanoma. Utilising cancer controls, there was a significant association between Tswana ethnicity and melanoma (OR 6.8, 95% CI 1.45 to 70.39, p=0.008). No association was detected between melanoma risk and prolonged (>4 hours) midday, uncovered solar exposure (OR=0.99, 95% CI 0.41 to 2.26, p=1.00) or reported frequent utilisation of hats, long sleeves, or umbrellas (OR= 0.92, 95% CI 0.32 to 2.33, p=1.00).

CONCLUSION Advanced stage and acral presentation of melanoma are common in Botswana. While conclusions are limited by the small number of cases, we did not identify HIV or heavy sun exposure has important risk factors for melanoma. Observed associations between ethnic groups deserve future study and could represent an important risk in this population.

Nunes E

P186 | SPECTRUMS OF PULMONARY INFECTIONS ASSOCIATED TO MUCOCUTANEOUS KAPOSI SARCOMA AT MAPUTO CENTRAL HOSPITAL, A NATIONAL REFERENCE HOSPITAL OF MOZAMBIQUE (HCM)

Nunes E[1], Sousa J[1], Hassane A[1], Pereira Z[1], Taunde S[1], Akrami K[2]
[1]Maputo Central Hospital, [2] University of California

NEW HALL

Tuesday
5 November 2019
18:15–20:00

In Mozambique Kaposi's sarcoma (KS) is the most frequent tumour in patients with HIV infection in our health facilities. The pulmonary Kaposi (PSK) involvement and pulmonary infections (PI) occurs commonly in patients with preceding mucocutaneous lesions (MCKS). The study wants identify demographics, clinic and laboratorial pattern of MCKS with and without PSK and the PI associated.

METHODS Individuals with MCKS and HIV infection admitted to HCM were recruited from 2016 until 2018. They completed a questionnaire with demographic data and medical history. Blood tests were performed to CD4 count, haemoglobin and chest X-ray, bronchoscopy, bronchoalveolar lavage for AFB smear and culture, bacterial culture, cytology and fungi. Data were analysed in Stata 13.0.

RESULTS 196 patients enrolled, 118 (60.2%) were male with age ranging from 18 to 75 years old (Median=34.00 IQR=30.0–41.0). 183 (93.4%) were on ART before KS diagnosis and in 91 (51.4%) the ART initiation was less than 1 year. The CD4 median was 160 and Hgb median 9.7 g/dl. Through bronchoscopy was identified; KS in 91 (46.4%) patients and PI in142 (72.4%)with bacterial pneumonia 60 (30.6%), pulmonary tuberculosis 37 (18.8%), pleural tuberculosis 9 (4.5%), Histoplasma capsulatum 15/47 (31.9%), pneumocystis jiroveci 12/47 (19.1%) and pneumocystis more histoplasma in 9/47 (19.0%). Main clinical symptoms were dry cough, dyspnea, weight loss and asthenia like PSK. X-Ray changes: interstitial infiltrate in 64 (32.6%), reticule nodular infiltrates in 43 (30%). 88% were in ART with CD 4 median of 136.5. The PI were associated with PSK in 68 (48%) patients. The Follow up at 3 months was achieved in 85 (60%) with 28 (19,7%) deaths.

CONCLUSIONS Half of those with MCKS presented with PKS independent of CD4 level despite ART treatment. Multiple infections were detected with clinical radiographic presentations indistinguishable from PKS. A higher mortality was observed in the patients with opportunistic infections.

Nwagbara U

P019 | HEALTH SYSTEMS INFLUENCE ON THE PATHWAYS OF CARE FOR LUNG CANCER IN AFRICA: A SYSTEMATIC SCOPING REVIEW

Nwagbara U[1], Hlongwana K[1], Ginindza T[1]
[1]University of KwaZulu-Natal

NEW HALL

**Tuesday
5 November 2019
18:15—20:00**

OBJECTIVE Globally, lung cancer is the most common cancer and cause of cancer-related deaths, responsible for nearly one in five deaths. Many health systems in low- and middle-income countries (LMICs), including Sub-Saharan Africa have weak organisational structure, which results in delayed lead time for lung cancer patient care continuum from diagnosis to palliative care. Therefore, the aim of this study is to map evidence on the health systems issues impacting on the delays in timely lung cancer care continuum from diagnosis to palliative care in Sub-Saharan Africa.

METHODS A scoping review was performed following the method of Arksey and O'Malley. Systematic searches were performed using EBSCOhost platform, a keyword search from the following electronic databases were conducted: PubMed/MEDLINE, Google Scholar, Science Direct, World Health Organization (WHO) library, and grey literature. The screening was guided by the inclusion and exclusion criteria. The quality of the included studies was determined by Mixed Method Appraisal Tool (MMAT).

RESULTS A total of 2886 articles were screened, and 236 met the eligibility criteria for this scoping review study. Furthermore, 155 articles were also excluded following abstract screening. Eighty-one articles were selected for full-article screening by two researchers with 10 being selected for independent detailed data extraction for synthesis. These studies were also subjected to methodological quality assessment. Studies included in this review noted some health system factors responsible for the delays in timely lung cancer diagnosis, such as the long waiting times, high cost and inaccessibility of diagnostic investigations, delays due to multiple medical visits, misdiagnosis and misinterpretation of chest radiograph.

CONCLUSIONS It is important for the countries in Sub-Saharan Africa and other LMICs to strengthen their health-care systems by ensuring that they have adequate screening and diagnostic infrastructure. Furthermore, health education among health providers on lung cancer should be prioritised.

Nyagabona S

P086 | ATTITUDES AND BARRIERS TO RESEARCH AMONG ONCOLOGY TRAINEES IN EAST AFRICA

Nyagabona S[1], Rubagumya F[4], Chan H[3], Paciorek A[3], Mmbaga E[2], Van Loon C[3]
[1]Ocean Road Cancer Institute, [2]Muhimbili University of Health and Allied Sciences, [3]UCSF Helen Diller Family Comprehensive Cancer Center, [4]Rwanda Military Hospital

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE East Africa is facing a rising burden of cancer; but few clinicians are equipped to effectively conduct research in this area. The study aimed to assess Attitudes and Barriers to conducting research amongst young Oncology trainees of Master's in Medicine (MMed) in Clinical Oncology at Muhimbili University of Health and Allied Sciences (MUHAS) in Tanzania.

METHODS A questionnaire was distributed to trainees and recent graduates of MMed Clinical Oncology Program at MUHAS. Areas that were assessed included: (1) demographic data; (2) prior research training (3) prior and current research activities; (4) attitudes towards the importance of research; and (5) supports and barriers to including research in oncology career. Descriptive statistics were used to summarise level of knowledge, attitude and research practice. Categorical variables were presented as totals and percentages. Continuous variables were presented with median values and ranges. Fisher's exact tests were performed evaluating associations between demographic data, nationality, and rank (trainee vs. faculty), with particular attitudes and barriers. All analysis was performed with Stata statistical software version 15.

RESULTS A total of 30 individuals responded to the survey, of whom 53% were male and 70% identified as current trainees. Amongst the majority of respondents, attitudes towards research were strongly favourable. While only 42% reported receiving formal training in research-methodology, 87% reported intentions to incorporate research into their careers. The absence of protected research time and lack of access to research funding opportunities were identified by majority of respondents as critical barriers.

CONCLUSION A majority of current and recent oncology trainees in Tanzania desire to incorporate research into their careers, but most lack adequate training in research methodology and longitudinal mentorship. Thus future collaboration should focus on creation of appropriate research training curriculum and fostering an environment that catalyzes inter professional development in context-specific cancer research in East Africa.

Nyagabona S

P087 | ESTABLISHING A CANCER RESEARCH TRAINING PROGRAM IN TANZANIA

Nyagabona S[1], Dharsee N[2], Mushi B[1], Sama Philipo G[1], Van Loon K[3], Mmbaga E[1]
[1]Muhimbili University of Health and Allied Sciences, [2]Ocean Road Cancer Institute, [3]University of California

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVES The challenges posed by increased cancer burden in East Africa demand development of research skills and capacity to inform context-specific cancer control plans. MUHAS and ORCI are home to one of the first clinical oncology training programs in East Africa and are uniquely positioned to build capacity for cancer research. We aim to: (1) perform an assessment of training needs and establish a set of competencies that must be achieved; (2) create an inventory of training resources available in Tanzania; (3) select a training model and develop a curriculum; (4) identify and develop mentorship resources; and (5) develop strategies for scholar retention.

METHODS We employed a mixed methods approach consisting of in-depth interviews with institutional heads, and senior researchers. Current and recent trainees in the clinical oncology training program at MUHAS completed questionnaires regarding attitudes and barriers to research. Together these results will inform development of objectives for the research training program.

RESULTS Amongst 31 respondents to a survey of current and recent trainees, 87% (N=26) reported intentions to incorporate research into their careers. However, only 37% (N=11) reported receipt of formal training in research methodology. The absence of protected research time, mentorship, and access to research funding opportunities were identified as barriers. Collection of quantitative and qualitative data from additional stakeholders is ongoing; these data will be presented.

CONCLUSION Enthusiasm for cancer research in Tanzania is high, but research training and longitudinal mentorship are needed. In partnership with UCSF, we aim to train and mentor a cadre of investigators who are capable of conceptualising, implementing, analyzing, and publishing original research focused on cancer in East Africa. Our future collaboration will focus on creation of appropriate research training curriculums and fostering an environment that catalyzes context-specific cancer research.

Nyakabau A

TOWARDS INTEGRATING PALLIATIVE CARE INTO ONCOLOGY PRACTICE IN ZIMBABWE

Nyakabau A[1], Tapera O[1]
[1]Cancerserve Trust

MEETING ROOM 2

Tuesday
5 November 2019
14:30–16:30

BACKGROUND Zimbabwe is faced with a growing burden of cancer on the background of limited resources attributable to low fiscal allocations. Challenges impacting on cancer service provision include:

- Limited diagnostic, staging & treatment facilities/resources
- Shortage of cancer specialists (pathologists, oncologists, surgeons, haematologists etc)
- Chemotherapy & Palliative Care medicines shortages/cost issues

OBJECTIVE

- Sharing of the Zimbabwe (Zim) Cancer (CA) & Palliative Care (PC) situation
- Outline ongoing Public Health PC integration into National Health Project
- Present a proposed Multidisciplinary Cancer Palliative Care Unit (CaPCU) Model for Health Care Workers (HCW) training mentoring & service provision

APPROACH

Palliative care is known to improve quality of life, wellbeing, dignity and comfort for individuals. In Zimbabwe palliative care is organised in the following way in Zimbabwe:

- Home based care
- Palliative day care centre
- Outreach services
  - Mobile clinic
  - Roadside clinic
- Hospital palliative care team
  - Multidisciplinary
  - In-patient & out-patient services
  - Outreach, mobile & roadside clinic services

LIMITATIONS

- Limited fiscal space
- Competing priorities
- Shortage or high turnover of skilled human resources
- Lack of strategy in non-cancer conditions

NEXT STEPS

- Piloting of integration of palliative care into oncology is ongoing.
- Continued advocacy for integration of palliative care into oncology practice
- Advocacy for alignment or review of cancer strategies to include integration of palliative care with oncology.

Obajimi M

P348 | IBADAN MULTIDISCIPLINARY BREAST TUMOR BOARD: OUR EXPERIENCE ON SOCIO-ECONOMIC CHALLENGES OF BREAST CANCER IMAGING IN SOUTH WEST NIGERIA

Obajimi M[1], Soyemi T[1], Adeniji-Sofoluwe A[1]
[1]University College Hospital

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE A presentation by the Multidisciplinary breast tumour board (MDT) domicile in the University College Hospital in Ibadan, South West Nigeria. It aims at highlighting the socio-economic challenges of breast cancer imaging experienced by the cohort of women managed in that community.

METHODS Records of all the women seen from inception of the board in 2008 to 2012 were analyzed for demography, social status, educational level and challenges experienced during the course of imaging and management.

RESULTS Socio- economic challenges were reported at the various levels of management namely; screening, imaging and the definitive management. Some of the important challenges reported during screening were; ignorance, non-accessibility and high cost of mammography. Denial, cost of transportation and the preference for non-orthodox method of treatment were top on the list of the cohort's hardship during imaging. However, during the definitive management, the study identified, the current cost of surgery and drugs (adjuvant and neoadjuvant therapy), the fear of mastectomy and the non-availability of radiotherapy centres as the major hurdles experienced by the women.

CONCLUSION The Ibadan MDT proffered the following solutions to improve breast cancer imaging and overall management in women in Ibadan. They include: improved breast cancer awareness programs, widespread use of Sono-mammography to avail screening to many more women, a reduction in mammography fees, subsidisation of breast cancer drugs, counselling on the benefits of early detection and presentation as well as the need for a robust family and religious body support. The long-term solution proffered by the MDT was; increased future participation by the government in breast cancer management.

Obajimi M
THE ROLE OF CROSS-SECTIONAL IMAGING IN CANCER CARE: AN OVERVIEW

Obajimi M[1]
[1]University College Hospital

MEETING ROOM 2

Thursday
7 November 2019
07:15–08:20

INTRODUCTION Though cancer may be difficult to detect, the earlier it is diagnosed the better. Cross-sectional images are thin slices of the body produced by Computed Tomography (CT), Ultrasound (US) or Magnetic Resonance Imaging (MRI). These acquired thin sliced images give better resolution that produce accurate and precise imagery of the internal anatomy of the human body enhancing cancer diagnosis, staging, treatment and follow-up. The role of cross-sectional imaging in cancer care includes:

Screening Evidence abound on the use of cross-sectional imaging in cancer screening. MRI and US are now valuable screening tools, especially in the High-risk patient. They are preferred because of the non-utilisation of ionising radiation, suitability for guided procedures and for excellent image resolution. Recent advanced imaging techniques such as Virtual CT or MRI Colonoscopy have also assumed roles important in screening for bowel tumors.

DIAGNOSIS AND STAGING

The CT and MRI images provide profound soft tissue and bone details, that readily localises the tumor, differentiates between multifocal and multicentric lesions and also demonstrate the extent of locoregional metastasis, the latter is invaluable for tumor staging. The 3D and 4D Cross-sectional Volume images acquired from the Helical CT now assume more engaging and participatory interventional roles in cancer care. This is a major paradigm shift that allows for image-guided interventions, namely; biopsies, drainages and minimally-invasive therapeutic procedures necessary for cancer management.

TREATMENT RESPONSE AND MONITORING

Cross-sectional images provide pictures and data that help to evaluate the vascularity, size, shape, outline and constituents of a tumor. These are important parameters of inter and post therapeutic images necessary for regular evaluation of effectiveness of the administered therapy. The wholistic personalised approach of management by the Multidisciplinary Tumor Boards (MDT) is now the adopted standard of care for disease monitoring and detection of tumor recurrence.

CONCLUSION Cross sectional imaging certainly plays a vital role in the diagnosis, guided studies, intervention and follow up of cancer patients. The need for standard reporting and documentation as well as the benefits of the MDT in cancer care will be the highlight of this presentation.

Obat M, Wekesa C

LB028 | HISTOLOGICAL PATTERN OF CHILDHOOD MALIGNANT TUMOURS IN A TERTIARY KENYAN HOSPITAL: A 10-YEAR RETROSPECTIVE STUDY AT KIJABE MISSION HOSPITAL

Obat M[1], Muma S[2], **Wekesa C**[3], Mukanda B[1]
[1]MTRH College of Health Sciences, [2]AIC Kijabe Mission Hospital, [3]Moi Teaching and Referral Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND The global cancer burden increases with rising population growth and age. The proportion of cancer occurrences is roughly 12 times higher in Africa than in Europe. In Africa about 4.8% of cancers are in children less than 15 years compared with 0.4% in Europe. South Africa is the only dedicated children's cancer registry in Africa. There are two population-based cancer registries in Kenya covering less than 20% of the population. The incidence of malignant disease outside of these population is largely unknown in the country.

PROBLEM STATEMENT Although there is a formal referral process in the public health sector in Kenya, many times the patients who present at Kijabe hospital are exiting that process due to long queues and inefficiencies within the public system. this study will make a retrospective review of pediatric malignant tumors seen in the pathology department at Kijabe Hospital over a ten-year period.

OBJECTIVES To describe incidence patterns of childhood(0–14yrs) malignant tumors presenting in a tertiary health facility in a rural population in Kenya and to compare the incidence to that reported in the Nairobi cancer registry.

METHODS Random stratified research design was employed for the study. A total of 502 histologically confirmed biopsies of malignant tumors comparing with 942 in the NCR were sampled from the hospital data base for period between Jan 2007–Dec 2016 including Malignant tumors for (0–14yrs), demographic date of surgery, date of diagnosis, gross and microscopic description of pathological samples and final diagnosis. Data was analyzed by descriptive statistics and presented in tables, bar graphs and pie charts.

RESULTS AND DISCUSSION 502 histologically verified tumors in children 0–14 and 942 in NCR. The male to female was 1;2 compared to 1;4 in the NCR. Leukemia's, soft tissue sarcoma and bone tumors were common in the National cancer registry as compared to the tertiary hospital by 15.9% 11.4% and 3.5% respectively. Brain tumors and nephroblastomas were 5.2% and 3.2% respectively, higher than in the national cancer registry. No retinoblastoma cases were reported in our hospital This shows a generally slightly higher risk of malignant tumors in male children in both settings., and this difference was not significant.

CONCLUSION The study showed a difference in pattern distribution of childhood tumors between the hospital and NCR.

RECOMMENDATIONS The ministry to institute compulsory cancer registration to increase awareness of the growing burden of cancer and encourage private medical institutions to report their cases.

Odhiambo A
UPDATE IN SYSTEMIC THERAPY FOR RECTAL CANCER

Odhiambo A[1]
[1]University of Nairobi

MEETING ROOM 1

Thursday
7 November 2019
14:40–16:30

Rectal Cancer incidence and mortality is thought to be on the rise in Africa. Colorectal cancer ranks 4th in Africa with an estimated incidence of 62000 new cases in 2018. Of these, 24000 were rectal cancer and out of these, 19000 (80%) were in sub-Saharan Africa (SSA). A huge gap remains in SSA to offer meaningful and effective treatment to this growing population of rectal cancer patients. A multidisciplinary approach is mandatory in rectal cancer management. This often includes a radiation/clinical oncologist, bowel surgeon, medical oncologist among others. Systemic therapy continues to remain crucial to the successful treatment of rectal cancer. This includes the neoadjuvant, adjuvant and metastatic settings. This presentation will focus on highlighting the updated standard of care in these three settings citing the rationale and recent clinical data. I will highlight the history and evolution of systemic therapy and compare the three major treatment guidelines ASCO, NCCN and ESMO. I will share my experience treating rectal cancer patients from a medical oncologists' perspective in Kenya. I will cover how rectal cancer treatment in Kenya has evolved over time, compare public vs private settings, its challenges and highlight some of the positive strides Kenya has made to improve cancer care in general and finally give my recommendations for what Africa can do to improve systemic treatment for rectal cancer.

Odoyo E

P387 | COMMUNITY ENGAGEMENT IN LUNG CANCER OUTREACH SERVICES: A CASE OF MULTINATIONAL LUNG CANCER CONTROL PROGRAMME (MLCCP), AMPATH, KENYA

Odoyo E[1], Rono C[1], Atundo L[1], Chemweno C[1], Kibet H[1], Laktabai J[2], Chite A[1]
[1]Ampath Oncology, [2]Moi Teaching and Referral Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Worldwide, there are more than 1.8 million new cases of Lung Cancer every year and also Lung Cancer accounts for the highest cancer-related mortality. Despite this, many African countries lack information regarding the epidemiology of lung cancer and its control.

OBJECTIVE To raise awareness, quantify the true burden of Lung Cancer disease in the region and validate tools for case finding in high-risk groups for lung cancer in the community.

METHODOLOGY Since January 2018, case finding for lung cancer using a community engagement approach, at its earliest stage has been the main objective. This has been so due to the fact that diagnosis at an advanced stage remains the main challenge for many low-income settings, as is our case. A model that utilises education, awareness, and demand for lung cancer services, making good use of the community has been adopted as a strategy to ensure the communities embrace preventive measure to lung cancer and seeks services for early diagnosis in cases of signs and symptoms. For this reason, the program at Academic Model Providing Access to Healthcare (AMPATH) has made efforts to disseminate tools developed for case finding in high-risk clients through cough monitors and chest/TB clinic. This is aimed at integrating them within the service delivery areas for adoption and use for clients presenting with signs and symptoms associated with Lung Cancer or other pulmonary diseases including Tuberculosis (TB).

RESULTS The integration of Lung Cancer awareness measures with TB activities and the community strategy approach involving cough monitors adopted by AMPATH Oncology has significantly improved the need for further screening as well as the attitude on good lung health by the community. Since January 2018, AMPATH Oncology has supported a significant number of clients in achieving optimal lung cancer care. This has led to an increase in the number of clients who have undergone case finding and identified with lung masses.

CONCLUSION Community engagement in Lung Cancer care is a key strategy for realising an early diagnosis. This is mainly through the case finding approach as well as sensitisation of the members of the community to be able to recognise the signs and symptoms.

Odoyo E

PUBLIC PRIVATE PARTNERSHIPS FOR INTEGRATED APPROACH TO NON-COMMUNICABLE DISEASES IN SUB-SAHARAN AFRICA: A CASE OF BLUEPRINT FOR SUCCESS PROJECT – MERU COUNTY, KENYA

Odoyo E[1], Korir A[2], Ali Z[3], Karua F[4], Karoki L[5], Chite A[1]
[1]AMPATH Oncology/ International Cancer Institute, [2]Kenya Medical Research Institute, [3]Kenya Hospices and Palliative Care Assoc. (KEHPCA), [4]Amref Health Africa, [5]The County Government of Meru

MEETING ROOM 3

Friday
8 November 2019
12:45–13:45

OBJECTIVE Africa is facing a staggering non-communicable disease (NCD) burden that is only expected to increase dramatically in the coming decades. Several implementing partners came together under the "Blueprint for Success – Meru County Project" to deliver a collaborative, focused and county-led Project. The objective is to identify and create a sustainable model, where all stakeholders collaboratively address NCDs in a low and middle-income country (LMIC). This program seeks to improve access to screening, diagnostics, treatment and patient support services for breast, cervical and prostate cancers as well as diabetes and hypertension in Meru County.

METHODOLOGY Through a collaborative public-private partnership (PPP) health systems approach – led by the Meru County's Ministry of Health (MoH). The partners are Academic Model Providing Access to Healthcare (AMPATH) – Oncology & International Cancer Centre (ICI), Amref Health Africa, Kenya Palliative Care Association of Kenya (KEHPCA), Kenya Medical Research Institute (KEMRI) and National Cancer Institute (NCI) – Kenya. The project is embedded in national and county health structures and policies, including the MoH community health strategy. Health care professionals at different tiers of the health system and CHWs at the household level are being trained on the National Oncology "Integrated Cancer Care and Management Curriculum". In addition, AMPATH Oncology/ ICI has availed their established, Faculty, Pathology services, Telemedicine, and Telepathology services as well as mentorship support to Meru County teams. KEMRI/ NCR will spearhead cancer registry training and mentorship. KEHPCA will handle palliative care.

RESULTS To provide about 20,000 women with breast and cervical cancer screening services and navigation of care and at least 1,000 men with prostate cancer screening services and care. All those diagnosed with breast, cervical and prostate cancers will be accessing optimal treatment and follow-up care at AMPATH Oncology/ ICI. The project is also deploying training content of diabetes, hypertension, palliative care, and the CHW integrated cancer care curriculum to CHW across Meru county as well as training of primary health care physicians. KEHPCA is taking the lead on the training of primary health caregivers on patients support and palliative care

CONCLUSION This multisectoral approach to addressing the burden of NCD in Meru County – Kenya, is essential in addressing the gaps in NCD care and control.

Odujoko O

ESTABLISHING RELIABLE ER, PR AND HER2 RESULTS FOR MASTECTOMIES POST-NEOADJUVANT CHEMOTHERAPY IN ILE IFE, NIGERIA

Odujoko O[1], Ntiamoah P[2], Olasehinde O[1], Alatise O[1], Kingham P[2], Edelweiss M[2]
[1]Obafemi Awolowo University Teaching Hospital, [2]Memorial Sloan Kettering Cancer Center

MEETING ROOM 3

**Wednesday
6 November 2019
13:30–14:30**

OBJECTIVE Quality pathology services are essential for effective cancer care because of its role in diagnosis, prognosis, and guiding clinical management. In this study we seek to establish a reliable workflow for testing ER/PR/Her2 by immunohistochemistry(IHC) in patients receiving neoadjuvant chemotherapy(NAC) and compare to the results identified in the biopsy prior to treatment when available.

METHODS Patients receiving NAC for breast cancer were prospectively identified. A pathologist was alerted when the mastectomy was scheduled. A mechanism to transport the specimen to pathology was established. The specimen was grossed fresh and submitted for histopathological analysis. Sections of tumour were selected and IHC prognostic markers, namely ER/PR/Her2 were performed with adequate controls following ASCO/CAP guidelines. Clinical information and histopathological findings were recorded. An attempt to identify the pre-NAC biopsies for ER/PR/Her2 result comparison is undergoing.

RESULTS Thirty-nine patients having mastectomy and axillary lymph node (ALN) dissection were identified between 4/2018 and 3/2019. Patients' age ranged from 32–84 years. All patients had biopsy or FNA confirming carcinoma prior to the start of treatment. 20.5% had ER/PR/Her2 performed in the prior biopsy (currently available records). There were multiple combinations of NAC with treatment duration ranging from 3 to 6 months. None of the patients received Herceptin. For each case a pathologist was on standby. All 39 cases were transported in ice-pack to pathology and prosected within one hour of surgical removal. Formalin Fixation ranged from 12 to 24 hours and tissue processing followed histology protocol. Ten out of 39 patients had a complete pathologic response (pCR). One of the 10 patients with pCR in the breast had residual disease in an ALN. Twenty-nine patients had residual tumour and ER/PR/HER2 performed: 13 ER+, 8 PR+ and 10 HER2+. 11 tumours were triple negative(TN), 6 ER-Her2+, 4 ER+Her2+ and 9 ER+Her2-. All IHC controls were appropriate.

ER/PR/HER2 status of the prior biopsied material was available for 8 patients. Two of these eight patients had breast pCR and prior biopsies with ER+PR+Her2- and a TN result. Six patients had IHC results for both prior biopsy and mastectomy showing. 100% concordance. Collection of data for the remaining biopsy cases is ongoing.

CONCLUSION The established workflow to ensure compliance to ASCO/CAP guidelines was reliable with high ER/PR/HER2 concordance with IHC controls and available prior biopsy results. The workflow involved a pathologist being on standby for the mastectomy availability, transporting the specimen and performing gross examination on a fresh specimen.

Oduor B

P088 | DEVELOPING PARTNERSHIPS FOR IMPLEMENTATION OF BIOBANKING TRAINING FOR MOI TEACHING AND REFERRAL HOSPITAL, ELDORET

Oduor B[1], Korir R[1], Asirwa F[1,2]
[1]Ampath Oncology Institute/Moi Teaching and Referral Hospital, [2]Indiana University School of Medicine

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

BACKGROUND Ampath Oncology Institute, in collaboration with the International Agency for Research on Cancer/World Health Organization, conducted a 2-day biobank training course in Eldoret, Kenya on 14th and 15th January 2019. The training was developed and conducted following the expertise, biobank status and educational needs of the institution. A two-step training approach to building capacity was used and included (a) face-to-face and (b) institutional site visit.

OBJECTIVE To train Ampath Oncology Program staff with the overarching goal of providing a general overview of the key issues in establishing, maintaining and accessing a biobank as well as strengthening technical capacity for increased consideration and use of human tissue repositories.

METHODS Face-to-face training was done through lectures and discussions in-between sessions for the exchange of knowledge and experiences. Lectures focused on important areas of biobanking while discussions focused on institutional challenges and laws that govern biobanking in clinical care and research.

OUTCOME 21 participants from Ampath and Kenya Medical Research Institute attended the training including principal investigators, program managers, biobank managers, lab technicians, physicians, pathologists, immunologists and researchers. Pre-training and post-training questionnaires were issued to participants to assess the effectiveness, usefulness and impact of the training. Overall response rate was 100%. Respondents included 70.6% men and 29.4% women. For relevant analyses, results were significant at 95% confidence level. Pre-test and post-test mean average scores were 59 and 90 respectively, indicating an average score increase of 31 points after the training.

CONCLUSION The data suggested that there is a gap in knowledge on biobanking but there is willingness of Health Care Professionals in learning more about biobanking. Ampath Oncology Institute, through such partnerships and training initiatives with IARC/WHO and other willing organisations intends to change the cancer care landscape by building capacity, increasing research and improving care through biobanking.

Oduor B

P089 | PARTNERSHIP WITH PHARMA TO BUILD CAPACITY IN CANCER CONTROL: A LESSON FROM AMPATH

Oduor B[1], Chite F[1,2]
[1]Ampath Oncology Institute/Moi Teaching and Referral Hospital, [2]Indiana University School of Medicine

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND There is a huge need for capacity building at all levels of cancer control. Ampath partnered with Takeda Pharmaceuticals in a Preceptorship Program since January 2018 to accelerate the trainings in cancer control for health care professionals across all cadres.

OBJECTIVE To provide education and training support for healthcare professionals operating across the oncology continuum of care from prevention to survivorship care.

METHODS The program supports long term trainings of 1 to 4 years duration for all cadres of health care professionals by supporting tuition fees. Upon selection for training, individuals provide their study program admission letters, fee structure, identification card, and a release letter from their employer indicating that they are bonded and expected to return back to their stations upon completion of their training.

RESULTS In one year, the program has supported the training of 2 Gynecologic Oncology Fellows, 4 Clinical Oncologists, 1 Radiation Oncologist, 2 Oncology Nurses, 9 Oncology Clinical Officers, 2 undergraduate Palliative Care Specialists, and 1 Pharmacist. The mean average age of the trainees was 34 years and of the total 21 supported, 12 were male and 9 females. The individuals have been supported to undergo training in different institutions across Africa with 12 training at the Moi Teaching and Referral Hospital's College of Health Sciences, 2 at Moi University, 2 at Alexandria University in Egypt, 1 at Stellenbosch University in South Africa, 2 at the Institute of Hospice & Palliative Care in Africa – Makerere University and 2 at Muhimbili University of Health and Allied Sciences in Tanzania. The program has also fully supported 51 healthcare professionals to attend short term, 2–30 days' trainings in areas including Psycho-Oncology, Pediatric Oncology, Obstetrics and Gynecologic, as well as Cancer Care Electives programs. A skills lab has also been established to facilitate skills training at AMPATH. Expansion of outreach services has been initiated to more than 10 sites via Telemedicine.

CONCLUSION Partnerships with Pharma as key-stakeholders in cancer control, can help build capacity and increase access in delivering cancer care services. This represents an effective model of accelerating access to cancer care in LMIC and beyond.

Ogun M

PROSPECTS OF AN EDUCATIONAL INTERVENTION TO IMPROVE KNOWLEDGE OF BREAST CANCER AND BREAST SELF EXAMINATION AMONG FEMALE SECONDARY SCHOOL STUDENTS IN OYO STATE NIGERIA

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[2]Adekunle Ajasin University

MEETING ROOM 4

**Thursday
7 November 2019
13:30–14:30**

OBJECTIVE Despite the global burden of breast cancer, awareness and understanding in Africa is generally low, coupled with an increase in incidence among younger women. The study aimed to determine the effect of an educational intervention on breast cancer knowledge and breast self-examination among in female secondary school students.

METHODOLOGY The study was a quasi-experimental study that utilised a three-stage sampling technique to select 600 female students attending secondary schools in IbNELGA. The intervention consisted of lecture series on breast cancer for the experimental group and educational leaflets for the control group. A pre-tested, semi-structured questionnaire was administered at baseline and 3 months post intervention to elicit necessary information from participating adolescents. Mean knowledge and attitude scores were compared pre and post intervention. Data was entered and analysed using SPSS version 20. Level of statistical significance was set at $P<0.005$.

RESULTS The mean age of participants was 16.1 ± 1.5 years and 15.4 ± 1.5 years for the intervention and control group respectively. At baseline, study participants in the control group had a significantly higher mean knowledge score for breast cancer compared to the experimental group (5.5 ± 2.1 & 4.4 ± 2.5). The reverse was however the case post intervention where the experimental group had a higher knowledge score compared to the control (20.5 ± 1.5 and 7.0 ± 3.1) respectively. This was also the case with knowledge of BSE where study participants in the control group had a higher mean knowledge score for BSE compared to the experimental group (1.4 ± 1.6 & 1.3 ± 1.4). The reverse was however the case post intervention where the experimental group had a higher knowledge score compared to the control (7.4 ± 0.6 and 2.1 ± 2.2) respectively.

CONCLUSION The educational intervention helped improved participants knowledge on breast cancer and BSE. Acquiring knowledge on breast cancer and BSE at an early age has the potential to increase its practice in the later future leading to early detection of breast cancer.

Ohaeri B

P198 | KNOWLEDGE OF GYNAECOLOGIC CANCER RISK FACTORS AND SCREENING BEHAVIOUR AMONG CHILD BEARING AGE WOMEN ATTENDING OUT-PATIENT CLINIC IN SOME SELECTED HOSPITALS IN LAGOS STATE, NIGERIA

Ohaeri B[1], Ajala R[2]
[1]University of Ibadan, [2]Lagos University Teaching Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Cancer is a global public health problem. The malignancies of the female genital organs are major causes of morbidity and mortality. This is particularly so in the developing countries where there is poor awareness and late presentation. Hence, this study investigated the level of knowledge of gynaecological cancer risk factors and screening behaviours among childbearing age women attending outpatient clinic in some selected hospitals in Lagos state, Nigeria.

METHODS The study utilised a cross- sectional descriptive approach to elicit information from 430 randomly selected women of child bearing age, from three purposively selected hospitals in Lagos state. Self-administered questionnaire was used to gather information on each of the objective and the collected data were presented in frequencies and percentages, while the inferential statistics was analysed using Chi-square at 5% level of significance with the aid of SPSS version 20.

RESULTS Mean age was 32.9 ± 5.9 years, 62.0% were married and 74.8% had post-secondary school education, 64.2% were nulliparous, while 32.9% had 1–3 children. Many (56.7%), were self-employed, 84.7% were Christians and 45.3% were receiving average monthly income of above #50,000. In addition, 58 % of the women had good knowledge of cervical cancer. Important risks factors identified were: family history (52%), multiple sexual partners, smoking (51.1%), use of contraceptives (42.9%), and infection (42.9%). However, it was observed that nuliparity (65.1%) and fatty diet (37%) were misconceived as not being risk factors. Data on screening behaviour revealed only 23.2% of the respondents claimed being screened for one of the gynaecological cancer. Main source of awareness was health professional (35.6 %). Only 19.9% of the respondents claimed having done Pap smear test, while 56.9% had done pelvic examinations and 70.9% of the respondents did ultrasound. In addition, age, income and educational were significantly related to uptake of gynaecological screening. Some of the barriers identified were cost (27.4%), distance (24.7%), lack of information(23.5%) and time constraint (22%).

CONCLUSION Conclusively, about half of the respondents were not aware of cancer risk factors and lacked sufficient knowledge of gynaecological cancer. Few had been screened for the gynaecological cancer. Creating more awareness on the risk factors is considered necessary in other to increase uptake. Designing intervention to circumvent the barriers could enhance uptake, reduce morbidity and mortality and increase quality of life of women of child-bearing age in the area.

Ohene Oti N
ONCOLOGY NURSING IN AFRICA TODAY

Ohene Oti N[1]
[1]Korle-Bu Teaching Hospital

MEETING ROOM 2

Friday
8 November 2019
10:30–12:00

Globally cancer is a major public health issue and it's the second leading cause of death with about 18.1 million new cases and mortality at 9.6 million. Over 60% of worlds total new cases occur in Africa, Asia, Central and South America; and 70% of the total world cancer death occurs in this region. Contending with this burden cannot be done without the contribution of competent and knowledgeable oncology nurses. Irrespective of this burden, Africa is faced with scarcity of resources to help in cancer control such as trained oncology professionals. Nurses are pivotal in the health system and they remain a key position in engaging with patient and their communities and health professional to address disparities in cancer care to achieve the goal in cancer control. Even though roles may be similar, nurses in Africa especially low and middle income countries have challenges such as non-availability of treatments, if available patient cannot access it due to poverty, insufficient nursing workforce and deficient in the education to care for patients suffering from cancers. Despite the challenges, nurses are still pushing to raise awareness in cancer, provide care for patients and establish oncology nursing as a specialty. This presentation gives an overview of oncology nursing in Africa, the current status, the challenges and a reflection for stakeholders to address these concerns would be provided.

Ojing M

P090 | WHAT CAUSES CANCER? A TIME TO REVIEW COMMUNITY CANCER AWARENESS

Ojing M[1], Egesah O[2], Yegon E[2]
[1]African Palliative Care Association, [2]Moi University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE In order to achieve universal coverage, health care must therefore be acceptable to the cultural and social orientation of the community. Among the Luo of Kenya, it was believed that all diseases had cure and those that did not were as a result of non-obedience to the society rules and regulations. This belief poses a gap in explaining conditions that have no known causes like cancer. The study therefore sought to explore the perceived meaning and utilisation of palliative care among the Luo to provide information and opportunities for developing tailored programmes to increasing access to these services. One objective was to explore the understanding of conditions that required palliative care, including cancer.

METHODS The study took on an Interpretive Phenomenological Analysis approach to exploring the lived and observed experiences of the Luo conditions that needed palliative care and their families. Data was collected through review of secondary data, undertaking structured interviews, key informant interviews, focus group discussions and participant observation and analysed under the thematic areas of the research questions. A total of 43 participants were interviewed.

RESULTS Every condition was perceived to have an aetiology, with no room for spontaneous cause. Chronic conditions were mostly attributed to change in lifestyle and maybe diversion from the normal societal rules. There was confusion on the causes of cancers, and limited knowledge on the disease processes and prognosis.

CONCLUSION Due to differing aetiologies for cancers, efforts should be made to discuss cancer more from the physiologic process point of view rather than by the causative factors. The causative factors are merely risk factors and people get confused and stigmatised when they or their relatives acquire cancer without explicit exposure to the highlighted risk factors.

Ojing M

P226 | MAPPING CARE PATHWAYS FOR NEWLY REFERRED ADULT CANCER PATIENTS TO THE UGANDA CANCER INSTITUTE

Ojing M[1], Solomon Kibudde S[2], Namisango E[1], Nakaganda A[2], Luyirika E[1], O'Brien M[3], Orem J[2]
[1]African Palliative Care Association, [2]Uganda Cancer Institute, [3]American Cancer Society

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE As a regional centre of excellence, the Uganda Cancer Institute (UCI) receives a huge number of inward patient referrals for cancer treatment. There is however lack of clarity on care pathways for newly referred patients. This ambiguity makes it difficult to identify stages associated with long delays and makes planning for care difficult for patients. We thus aimed to map care pathways and their associated ideal turnaround times to inform the improvement of timeliness in initiating treatment.

METHODS We conducted focus group discussions with key stakeholders at the facility to map the care pathways and the associated ideal turnaround times. The processes pathway was piloted with four patients and modified as appropriate. It was then used longitudinally with fifty patients (n=50) newly referred adult patients, from the point of referral to treatment initiation. We computed average duration by process level and compared it to the ideal turnaround times.

RESULTS Key stages were mapped for patients seeking cancer treatment from referral to UCI to receiving initial treatment with average timelines. These were: confirmation of diagnosis (1 day), registration (1 day), initial clerking (2 days), investigations (2 weeks), senior doctor review (2 weeks) and treatment initiation. The longest periods were taken during investigations and after senior review before actual treatment initiation, mainly due to institutional and financial factors.

CONCLUSION These findings inform quality improvement initiatives as drivers for delays in early treatment initiation are highlighted. It also eases patient navigation and communication as they know what to expect at what level and within what time, for budgeting and planning purposes.

Ojing M
P262 | CONTEXTUALISING PALLIATIVE CARE: A CASE STUDY OF LUO NYANZA, KENYA

Ojing M[1], Egesah O[2], Yegon E[2]
[1]African Palliative Care Association, [2]Moi University

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE The Luo Nyanza is a hub for high statistics of conditions that benefit from palliative care, thus, introducing palliative care in a way that makes it appear cognisant with the Luo may promote its acceptance and uptake. The study sought to explore the perceived meaning and explanation of palliative care among the Luo residents within the three community units linked to Chulaimbo Sub County Hospital, and their utilisation of palliative care. One objective was to explore the understanding of illnesses that endanger life, are chronic or are incurable by the Luo community.

METHODS The study took on an Interpretive Phenomenological Analysis approach to exploring the lived and observed experiences of the Luo conditions that needed palliative care and their families. Data was collected through review of secondary data, undertaking structured interviews, key informant interviews, focus group discussions and participant observation and analysed under the thematic areas of the research questions. A total of 43 participants were interviewed.

RESULTS Suggestions were made for definitions and descriptions of palliative care as well as slogans to help increase awareness about palliative care. The descriptions omitted the word 'Cure' which indicated that there was understanding that palliative care interventions would not necessarily cure.

CONCLUSION The study population see palliative care as a grey area embedded between the ethno medical and biomedical views of disease causation and treatment. There are opportunities to contextualise the newer conditions in ways that the Luo community can relate with. Anthropological studies should be considered to improve emic understanding of the non-communicable diseases like diabetes, cancer and hypertension.

Okoye I
CURRENT STATUS OF CLINICAL TRIALS IN AFRICA

Okoye I[1,2,3,5], Odedina F[4,5], Shamley D[6], Dent J[7], Ezeani A[4,5], Askins N[4,5]
[1]University of Nigeria Nsukka, [2]Association of Good Clinical Practice in Nigeria, [3]African Clinical Trial Consortium, [4]University of Florida, [5]Prostate Cancer Transatlantic Consortium, [6]University of Cape Town, [7]BIO Ventures for Global Health

PLENARY VENUE

Tuesday
5 November 2019
09:00–11:00

There is insufficient representation of Africans in clinical trials globally. Africa's 'double barrel' public health challenges, deserves increased volume of innovative, cutting-edge biomedical research to; better understand and effectively address these Scourges, assist Africa in setting its healthcare priorities, enrich the research culture, improve disparities in the continent's health systems & ensure access to low-cost therapies! No doubt the challenges of conducting clinical trials in Africa is formidable/ multi-faceted & includes; barriers in meeting international GCP standards, such as; ethical review/ recruitment/patient adherence issues, lengthy approval processes, political instability, achieving efficient operationalisation of Clinical Trial Regulations/Registries, & difficulty of accessing information on open clinical trials. Low participation of Africans in clinical Trials have been attributed to; perceptions of 'Guinea Pig exploitation' of Africa's destitute participants, whose vulnerability are made worse by being uninsured in very weak health systems, poor regulatory oversight, & unfavourable legislation. However, some less pessimistic Stakeholders are portending, an emerging mindset attributable to; the increasing burden of specific diseases, better appreciation of; the benefits to the population, & the protective aspects of ethical guidelines viz; protection of patients' rights, ensuring that research results are beneficial to the host society, & maintenance of similar standard of care as in 'Sponsor country'. Some Continent-Wide, Clinical Trial Platforms, such as; AVAREF- a network of African regulatory authorities and ethics committees, AORTIC, African Clinical Trial Consortium – ACTC, & Prostate Cancer Transatlantic Consortium – CaPTC, H3Africa, are tackling these challenges, creating platforms to; improve push factors for increased engagement of African researchers to participate in Global multidisciplinary/multicentre/Multicounty trials. The Carnegie African Diaspora Fellowship project' (Development of a Virtual Platform for Oncology Clinical Trials Infrastructure, Resources and Registry for Africa), EDCTP (European & Developing Countries Clinical Trial Partnership (EDCTP), & AREF (African Research Excellence Fund), are building research capacity in Africa.

Okunade K

NEW HALL

P388 | RISK OF EPITHELIAL OVARIAN CANCER AMONG WOMEN WITH VITAMIN D DEFICIENCY IN LAGOS, NIGERIA

Thursday
7 November 2019
16:30–18:00

Okunade K[1,2], Sajo E[2], Olorunfemi G[3], Rabiu K[4], Anorlu R[1,2]
[1]College of Medicine University of Lagos, [2]Lagos University Teaching Hospital, [3]University of the Witwatersrand, [4]Lagos State University Teaching Hospital

OBJECTIVES This study was aimed to determine the relationship between vitamin D deficiency and the risk of ovarian cancer among women treated at the gynaecological oncology units of two foremost public tertiary hospitals in Lagos, Nigeria.

METHODS We conducted a case-control study involving 35 women with primary epithelial ovarian cancer (EOC) and 35 cancer-free control women from August 2016 to May 2017. The participants' sera were then analysed for 25-hydroxyvitamin D levels using the CALBIOTECH® 25(OH) vitamin D ELISA kit. Descriptive statistics were carried out for all relevant data and binary logistic regressions were utilised to determine the relationship between vitamin D deficiency and the risk of EOC after controlling for all confounders.

RESULTS We reported that the odds of having EOC among women with vitamin D deficiency ($\leq$30ng/ml) was not statistically higher than in women with adequate vitamin D levels (P=0.094). The family history of cancers was the only other independent risk predictor of EOC among the study participants (P=0.013).

CONCLUSION This study provided no evidence that low circulating levels of 25(OH)D are associated with increased risk of EOC. Therefore, on this basis, there is no justification for recommending early prophylactic vitamin D supplementation in women with increased risk of EOC. However, there may be a need for a future robust and prospective cohort study of vitamin D levels and EOC occurrence.

Olabumuyi A

P389 | CAN LIPID PROFILE AND ANTHROPOMETRY BE USED TO EVALUATE THE RISK OF BREAST CANCER? A CASE-CONTROL STUDY DONE AT THE UNIVERSITY COLLEGE HOSPITAL IBADAN NIGERIA

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[1]University College Hospital, [2]University of Ibadan

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND The burden of cancer will be borne more by developing nations like Nigeria. Breast cancer, the leading cancer among women in Nigeria, will contribute a greater proportion of this burden. It is imperative that a preventive approach to breast cancer through sound knowledge of its risk factors be adopted to reduce the incidence of this disease and its burden. Dietary fat intake and body mass index are known modifiable risk factors of breast cancer. However, objective indices of fat metabolism including lipid profile, percentage body fat and other anthropometric indices and their associations with breast cancer have not been definitively explored in our setting. Furthermore, studies among Africans especially Nigerians are few and far in between.

OBJECTIVE This comparative cross-sectional study aimed to determine the association between lipid profile and anthropometric measurements of breast cancer patients (cases) attending the radiation and surgical oncology clinics at the University College Hospital in Ibadan with apparently healthy age-matched controls.

METHODS The lipid profile, anthropometric indices and percentage body fat of 70 cases of breast cancer and 71 age-matched controls were obtained. The variables of the cases and controls were compared using statistical tests of significance.

RESULTS This study recruited 70 women with breast cancer and 71 age-matched women as controls. The mean age of the study sample was 52years. Over 88% of the cases presented at advanced stage of the disease. Similarly, only 7.5% of cases presented with grade 1 disease. There was a significant association between unemployment and breast cancer. However, this did not remain significant with multivariate analysis. There was an inverse relationship between most of the mean values of anthropometric measures and breast cancer risk. Low percentage body fat remained an independent associated factor on multivariate analysis. The cases of breast cancer had statistically significantly higher serum triglyceride and very low-density lipoprotein cholesterol. These proved to be independent risk factors for breast cancer on multivariate analysis. This indicated every 1mg/dl increase in serum triglyceride increases the odds (risk) of breast cancer by 5.1%

CONCLUSION The patients with breast cancer in this environment present at advanced stage. This was the most likely reason for the inverse relationship between the anthropometric indices along with percentage body fat and breast cancer. The potential for serum triglyceride and very low-density lipoprotein cholesterol to serve as markers for an at-risk group for breast cancer needs to be confirmed by further prospective/longitudinal studies.

Olago V

P137 | TRACKING CANCER DIAGNOSTIC SERVICE USE IN PEOPLE LIVING WITH HIV (PLHIV) IN SOUTH AFRICA

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NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVES To map place of cancer diagnosis in relation to HIV care centre in PLHIV in South Africa using a national laboratory database.

METHODS We linked HIV and cancer laboratory data from 2004–2014 using support vector machine – supervised machine-learning algorithms. We compared the province where individuals accessed their HIV care (assumed to be the province of residence) versus where they had their cancer diagnosis. We used folium leaf, branca, seaborn and matplotlib – big data mapping techniques in Python 3.6 running on jupyter notebook, to map cancer diagnosis and HIV care facilities.

RESULTS During the study period, 68,543 people with cancer also had a documented HIV positive result. The median age at cancer diagnosis was 40 (IQR, 33–49) years for the entire population with most cancers in PLHIV diagnosed in females (70.7% (n=48,572)). Gauteng and Western Cape provinces diagnosed the most cancer cases in the PLHIV at 42.4% (n=29,093) and 11.6% (n= 7,939) respectively. Of all the PLHIV cancer patients, 24.6% (n=16,864) accessed cancer diagnosis outside their province of residence with 60.7% (n=10,235) travelling to Gauteng. KwaZulu-Natal had 46.6% (n=4,107) of its PLHIV cancer patients diagnosed in Gauteng. In contrast, in the Western Cape 94.8% (n=6,522) of cancer patients had their cancer diagnosis and their HIV care within the province.

CONCLUSIONS There was poor access to cancer diagnosis in PLHIV in KZN such that nearly half of patients accessed cancer diagnosis over 500km away from their HIV diagnosis/care province. The higher retention of PLHIV with cancer in the Western Cape reflects better oncology services in the province. More effort is required to ensure equitable access to oncology services within the country to optimise cancer patient outcomes.

Salcedo M

P042 | IMPLEMENTING HPV TESTING IN MOZAMBIQUE

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[1]Barretos Cancer Hospital, [2]Hospital Geral e Centro de Saúde de Mavalane, [3]A.C. Camargo Cancer Center, [4]The University of Texas MD Anderson Cancer Center, [5]Ministerio da Saude de Moçambique, [6]Universidade Eduardo Mondlane, [7]Federal University of Health Sciences/Irmandade Santa Casa de Misericordia, Porto Alegre, Brazil

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVES To implement primary HPV testing for cervical cancer screening in Maputo, Mozambique including training the local laboratory staff to perform the assay.

METHODS The CareHPV test system (Qiagen, Gaithersburg, MD, USA) was installed at the Mavalane General Hospital. This test is based in signal-amplification that allows the detection of 14 high-risk HPV types in a batch of 90 samples in limited-resource settings. Women were enrolled and a cervical sample collected by a nurse or doctor. The laboratory personnel were trained by laboratory experts from Brazil.

RESULTS Between April 2018 and January 2019, 427 women were enrolled. The local laboratory staff underwent to four one-week long training sessions to accurately perform the CareHPV test. The median age of participants was 39 years and 20.2% were HIV positive. The CareHPV test was positive in 21.8% of the cervical samples.

CONCLUSIONS Our results suggest that performing CareHPV test in resource limited areas is feasible. However, a single visit screen-and-treat strategy was not possible due to the time required to collect 90 samples plus the 4 hours CareHPV run. Intensive training was needed to perform the CareHPV test accurately and with confidence. A high HPV detection rate was noted in this population.

Olorunfemi G

P138 | SPATIO-TEMPORAL TRENDS OF BREAST, CERVICAL AND OVARIAN CANCER MORTALITY IN SOUTH AFRICA FROM 1997–2016

Olorunfemi G[1], Musenge E[1], Ezechi O[2], Libhaber E[1]
[1]University of Witswatersrand, [2]Nigerian Institute of Medical Research

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Breast (BC), Cervical (CC) and ovarian (OC) cancer are leading causes of female cancer deaths in South Africa (SA). However, rapid socio-economic transformation after the commencement of multi-racial democracy in 1994 can impact the mortality trends of female gender cancers in SA. We evaluated the spatio- temporal trends of breast, cervical and ovarian cancer mortality in SA from 1997 to 2016.

METHODS A 20-year spatio-temporal trend analyses of BC, CC and OC mortality, based on data from Statistics South Africa was conducted. Join Point regression modelling was conducted to determine the trends in the annual crude (CMR) and age-standardised mortality (ASMR) rates by population/racial group, age group and province of residence. Provincial ASMR was mapped using geocodes and ARCGIC software.

RESULTS CC (n=55,317, 42.5%), BC (n= 51,435, 39.5%) and OC (11,623, 8.9%) constituted about 90.9% of breast and gynaecological cancer mortalities. Mortality (ASMR) rates increased annually by 1.6% (AAPC= 1.6%, P-value < 0.001), 1.7% (AAPC = 1.7%, P-value <0.001) and 2.0% (AAPC = 2.0, P-value <0.001) for CC, BC and OC between 2000 and 2016 and the ASMR were respectively 17.8/100,000, 13.6/100,000 and 3.5/100,000 in 2016. In 2016, Blacks (19.7/100,000) had the highest CC CMR while Asians/Indians (5.0/100,000) had the lowest CMR. All the racial groups had increased CC mortality trends (Blacks: AAPC=3.2%, Coloureds: AAPC= 3.3%, Whites: AAPC=2.9%), except the Asians/Indians (AAPC= -0.3%) with stable trends. Whites had the highest mortality rate for BC (45.9/100000) and OC (11.8/100,000) while Blacks had the least rates (breast: 11.0/100,000; ovarian: 2.7/100,000). However, Blacks had the highest annual increase in BC mortality (AAPC = 4.6%). BC was the leading cause of female cancer mortality in two South African provinces (Western Cape and Gauteng), with the highest per capita GDP, while CC was the leading cause of mortality in the other seven provinces.

CONCLUSION The increasing mortality burden of breast, cervical and ovarian cancer in SA between 2000 and 2016 were driven by different socioeconomic, ethnic and spatial characteristics. Targeted and holistic public health interventions are urgently required to improve survival rates of the major gynaecologcial cancers in SA.

Olorunfemi G

P139 | TRENDS AND SOCIODEMOGRAPHIC PREDICTORS OF ENDOMETRIAL CANCER MORTALITY IN SOUTH AFRICA (1997–2015)

Olorunfemi G[1], Ewuola A[2], Mthombeni [2]
[1]University of the Witswatersrand, [2]University of Johannesburg

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Endometrial Cancer (EC) is the sixth most common female cancer globally. Improved socioeconomic status and increased prevalence of obesity and low parity in South Africa (SA) may impact the EC trends in the country.

OBJECTIVE To evaluate the national trends and sociodemographic predictors of EC mortality in SA from 1997–2015.

METHODOLOGY Temporal trend analysis of EC mortality in SA was conducted using data from Statistics South Africa. National annual age standardised mortality (ASMR) rate stratified by age-group and province of usual residence was calculated. Direct standardisation using segi world population was conducted. Average annual percent change (AAPC) of the observed trends was conducted using JoinPoint version 4.5.0.1 software. Provincial ASMR was geographically mapped using appropriate geocodes and ArcGIS software.

RESULTS Of the 3,955 EC deaths, about 76.4% (n=3020) were older than 60 years and the mean age at death was 66($\pm$11) years. About 10.2% of EC deaths occurred among smokers. The national ASMR of EC increased by 3.3% annually (AAPC= 3.3%, 95% CI: 2.4–4.3, P-value<0.00001) from 0.67/100,000 in 1997 to 1.23/100,000 in 2015. Eight of the nine provinces had increased EC mortality trends (APC range: 3.1% in Free State to 8.2% in KwaZulu-Natal) while Northern Cape had a non-significant decrease (APC= –1.2%, P-value=0.5). Women who were $\geq$50 years had about four fold odds of EC mortality as compared to younger women (OR:3.98, 95% CI:3.14–5.03, P-value:<0.001). Compared to never married and never smoked, the odds of EC deaths decreased by 27% and 47% among divorced women (OR: 0.73, 95%CI: 0.59–0.89, P-value: 0.002) and smokers respectively (OR: 0.53, 95% CI: 0.43–0.65, P-value < 0.001).

CONCLUSION Deaths from EC increased over the studied period. This study highlights the Public Health imperative of control program for EC in developing countries with rapid epidemiological transition.

Olorunfemi G

P263 | TRENDS AND PREDICTORS OF THE PLACE OF DEATH OF GYNAECOLOGICAL CANCER PATIENTS IN SOUTH AFRICA (1997–2015)

Olorunfemi G[1], Musenge E[1], Libhaber E[1]
[1] University of the Witwatersrand

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Palliative care is an essential component of the sexual and reproductive health rights of women dying from Gynaecological cancers. There is a global shift towards offering palliative care outside the hospital setting for cancer patients. The place or institution of death is a proxy for the quality of palliative care in a country.

OBJECTIVE We evaluated the trend and predictors of the Place of Death (PoD) of gynaecological cancer patients in South Africa (SA) from 1997 to 2015.

METHODS Temporal trend analysis of the annual proportion of gynaecological cancer deaths (ICD-10: C51–C58) that occurred in a PoD (Home/hospice vs Hospital) was conducted with the aid of Join point regression modelling software (version 4.5.0.1), based on data from Statistics South Africa. Multivariable logistic regression was conducted to evaluate the predictors of PoD.

RESULTS Only 27.3% of the 73,286 reported gynaecological cancer deaths occurred at home/hospice and younger women (mean age 56.3 ± 14.7 Vs 60.6 ± 15.7, P <0.001) died in the Hospital. There was an initial non-significant increase in proportion of death at home/ hospice from 0.2% in 1997 to 32.5% in 1999 (AAPC= 252.6, P=0.3), followed by a plateau from 1999 to 2005 (from 32.5%–34.6%, AAPC= –0.31%, P=0.8) and then a decline from 2005 to 2015 (AAPC= –5.0%, P<0.001). Having tertiary education (OR=1.3, P=0.006) or cervical cancer (OR=3.7, P=0.001) increased the odds of dying at home/hospice. The odds of dying at home/ hospice was increased (OR=1.3–2.4) in four provinces and decreased (OR=0.4–0.8) in four others.

CONCLUSION A significant decline in the proportion of gynecological cancer deaths at home/hospice occurred in SA from 2005 to 2015 and there was marked provincial variation in the likelihood of dying at home/hospice. The study highlights the need for targeted improvement in palliative care of gynecological cancers in the country. Exploratory studies on PoD preferences and the unmet needs for palliative care among cancer patients is warranted.

Olorunfemi G

SOCIO-DEMOGRAPHIC DETERMINANTS OF MORTALITY FROM BREAST, CERVICAL AND OVARIAN CANCER IN SOUTH AFRICA

Olorunfemi G[1], Musenge E[1], Ezechi O[2], Libhaber E[1]
[1]University of Witwatersrand, [2]Nigerian Institute for Medical Reserach

MEETING ROOM 3

Wednesday
6 November 2019
10:30–11:30

BACKGROUND Socio-demographic characteristics can play major roles in access to oncology care and survival from Breast and gynaecological cancers in a multi-ethnic middle-income country such as South Africa (SA).

OBJECTIVES We evaluated some socio-demographic factors associated with mortality from breast, cervical and ovarian cancer in SA from 1997 to 2016.

METHODS Three unmatched case control studies of breast, cervical or ovarian cancer mortality were conducted based on the mortality data of Statistics South Africa. Mortality from breast (n=51,435), cervical (n=55,317) or ovarian (n=11,623) cancer were the cases, while controls (n= 86,054) were other female cancer mortality with no known association to breast and gynaecological cancers. Descriptive and unconditional multivariable logistic regression analysis was conducted with sociodemographic characteristics as covariates. Stata version 14 (StataCorp, USA) Software was used for analysis.

RESULTS The mean age at death was respectively 55.9 ±14.6 years, 59.7±15.5, 61.0±15.1 for cervical, breast and ovarian cancer while the mean age at death of the controls was 59.4 ±0.1 years. The likelihood of mortality from Cervical cancer or breast cancer as compared to deaths from other female cancers was about 51% (OR=1.51, 95% CI: 1.43–1.60, P-value <0.001) and 18% (OR=1.18, 95% CI: 1.11–1.24, P-value<0.001) higher among women younger than 50years as compared to older women. But there was a 16% lesser odds of death from ovarian cancer among women younger than 50 years (OR= 0.84, 95% CI: 0.75–0.93, P-value=0.001). The odds of mortality from breast and ovarian cancer increases with increasing years of formal education (Ptrend <0.001) but the odds of mortality from cervical cancer decreased with increasing years of formal education (Ptrend <0.001). Other factors associated with cancer mortality includes marital status, province of residence and smoking status.

CONCLUSION Young women are more likely to die from breast and cervical cancer as compared to other female cancers in SA. Socio-economic status and place of residence play major roles in breast and gynaecological mortality in SA. Integration of breast and cervical cancer preventive efforts into sexual and reproductive health initiatives and reduction in socio-economic inequity can reduce the burden of breast and gynaecological cancers in SA.

Oluwole O

P279 | HISTOPATHOLOGICAL ANALYSIS OF NODULAR THYROID LESIONS IN LOKOJA METROPOLIS, KOGI STATE, NIGERIA

Oluwole O[1], Jones T, Sauter J
[1]University of Abuja

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To determine the histopathological pattern of nodular thyroid lesions in Lokoja metropolis. **MATERIALS AND METHODS** This is a 12-months retrospective study carried out in the Department of Pathology, Federal Medical Centre, Lokoja, Kogi State from July 2007 to June 2008. All the Haematoxylin &Eosin stained slides and paraffin embedded blocks were retrieved and studied. The clinical data such as the age, sex, site of lesion and clinical summary were extracted from the histology request forms. **RESULTS** A total of 21 patients were studied. All the patients were females. The age range is 25–56 years, with the mean age of 40.5 years. The peak age at diagnosis is in the fourth decade. The most common non-neoplastic lesion is nodular goiter which accounted for 13 (61.9%) cases, this is followed by follicular adenoma 3 (14.3%), and thyroglossal cyst 1 (4.8%). The malignant lesions in this study are follicular carcinoma 2 (9.5%), and medullary carcinoma 2 (9.5%). There are no male patients in this study as compared to many studies done in other geopolitical regions of Nigeria. **CONCLUSION** Nodular thyroid lesions are common in our environment as it is reported in similar studied across the geopolitical zones in Nigeria. However, this study is unique in the sense that no male patients was found during the period of this report. Thus, there is need to increase the level of awareness and surveillance of this disease among the men in our environment.

Omisore A

P312 | BREAST ARTERIAL CALCIFICATION: AN INDICATOR OF CAROTID ATHEROSCLEROSIS IN WOMEN UNDERGOING SCREENING MAMMOGRAPHY IN THE PINK MONTH IN SOUTHWESTERN NIGERIA

Omisore A[1], Onigbinde S[1], Olasehinde O[2], Alatise O[2], Bayewu O[3], Bassey S[3]
[1]Obafemi Awolowo University Teaching hospitals complex, [2]Obafemi Awolowo University Teaching Hospital, [3]Afe Babalola Multisystem Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Breast artery calcification (BAC) has been associated with cardio-vascular risk factors (CVRFs). Given the already established relationship between CVRFs and carotid atherosclerosis (CA), this study sought to determine if a similar relationship exists between BAC and CA by measuring common carotid intima-media thickness (CCIMT) among women with BAC on their screening mammogram in the pink month of 2018.

METHODS Eighty-one women with BAC on their mammogram had their CCIMT measured with B-mode ultrasound. Socio-demographic and anthropometric data, history of CVRFs (age, hypertension, diabetes mellitus, smoking, alcohol intake) and risk factors associated with breast cancer (parity, menopausal status, menarche, oral contraceptives, hormone replacement therapy) were recorded. Blood sample was collected for fasting serum total cholesterol and fasting blood glucose. Data were analysed using SPSS version 20.

RESULTS Breast artery calcification was equally distributed in both breasts and there was no predilection for any quadrant (p≥0.05). The prevalence of CA among women with BAC was 59.3%. The CVRFs associated with BAC were age, postmenopausal status, hypertension, diabetes and hypercholesterolemia while CVRFs associated with CA were age, hypertension, obesity and hypercholesterolemia. The independent predictors of BAC were age and CCIMT while those of CA were age and presence of BAC. Women with BAC having 3 or more CVRFs were almost 3 times at risk of CA when compared to women with fewer CVRFs (Odds ratio 2.5; 95% CI: 1.2 to 5.3: p = 0.02).

CONCLUSION Cardiovascular risk screening may be simultaneously assessed during screening mammography. This may provide additional motivation for promoting mammography screening in our setting.

Omoding A

P187 | FACTORS ASSOCIATED WITH SURVIVAL AFTER A DIAGNOSIS OF AIDS-RELATED DIFFUSE LARGE B-CELL LYMPHOMA IN THE ART ERA: A PROSPECTIVE STUDY AT THE UGANDA CANCER INSTITUTE

Omoding A[1,2], Towlerton A[2], Namirembe C[1,2], Coffey D[2,3], Phipps W[2,3], Warren E[2,3]
[1]Uganda Cancer Institute, [2]Fred Hutchinson Cancer Research Centre, [3]University of Washington

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE Diffuse large B-cell lymphoma (DLBCL) remains the most common non-Hodgkin lymphoma subtype occurring in HIV-seropositive individuals. Factors associated with survival after AIDS-related DLBCL diagnosis are complex and inadequately described, particularly in resource-limited settings. We sought to evaluate whether tumour-associated, immunologic, virologic, or treatment-related factors are associated with survival after a diagnosis of AIDS-related DLBCL in Uganda.

METHODS We prospectively enrolled HIV-seropositive subjects referred to the Uganda Cancer Institute (UCI) with histologically confirmed DLBCL after obtaining informed consent. At enrolment, we completed a staging workup, and collected clinical data as well as blood samples for immunologic and virologic studies. Subjects received antiretroviral therapy (ART) and chemotherapy per UCI standard clinical practice and were followed-up for vital status at 6, 12, and 24 months.

RESULTS We enrolled 55 adults with HIV-associated DLBCL, of whom 60% were female. The median age was 41 years (range 22–68). 68% had Ann Arbor stage III/IV, and 56% had intermediate-high IPI-score; 78% were ECOG 0–2. The median duration on ART at the time of enrolment was 4 years (1–19), the median CD4+ T-cell count was 243 cells/mL (6–2090), and the median HIV viral load was 51 (0–4,387,274) copies/ul. 61% received CHOP-21 chemotherapy, and 51% received 4–6 cycles of chemotherapy. Of these subjects, 17% achieved a complete response, 11% achieved a partial response, 3% had stable disease, and 25% had progressive disease. The overall survival at 1 year was 25%, and mortality within the first 6 months after study enrolment was over 50% (27/49). No factors were significantly associated with survival, based on preliminary analyses to date.

CONCLUSIONS Survival outcomes of subjects with AIDS-related DLBCL in Uganda remain poor. Ongoing studies are needed to identify factors associated with survival to better understand the pathophysiology of disease and to guide staging and treatment strategies.

Onyango E

LB019 | THE PROGNOSTIC INDICATORS FOR WOMEN UNDER 40 YEARS WITH BREAST CANCER IN WESTERN KENYA

Onyango E[1], Vanderpuye V[2], Chite A[1], Muyodi D[1], Kibet H[1]
[1]Ampath Oncology, [2]African Organisation in Research and Training in Cancer

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Our main objective was to find out the prognostic indicators for women with breast cancer below 40 years in western Kenya enrolled at Ampath Oncology.

RATIONALE Previous literature has shown the age group for breast cancer was around 50–60 years and women below 40 years have poorer outcomes. However, at Ampath Oncology the data is different, many present under 40 years. With early intervention, proper diagnostic techniques and management, women below 40 years have improved breast cancer outcomes.

METHODS Cross-sectional study for a population of patients enrolled on Breast Cancer Program at Ampath Oncology from February 2015 to 2019. An outline of our indicators were classified as age, TNM Staging, Histology typing and Hormone Receptor and data was extracted from the point of care patients' data, analyzed and presented in graphs and tables.

RESULTS Since 2015, Ampath enrolled 91 women below 40 years diagnosed with breast cancer onto the program. The women more than 50 years were about 43 women. Good prognostic indicators were outlined as Stage 1 & 2; Grade 1 & 2 cancers and estrogen positive markers and were associated with low levels of distant metastasis and higher chances of survival. A 71% 5-year overall survival was realised for breast cancer patients under 40 years with good prognostic indicators and were 65 in number out of the total 91 women. 29% (26 in number) of women had poor prognostic indicators were Stage 3&4; Grade 3&4 cancers and lack of estrogen markers. Twenty-nine percent of patients under 40 years had poor prognostic indicators and were lost to follow-up. The 5-year survival rate for the 29% of women with poor prognostic indicators was less than 10% since they had higher risks for metastasis and most were on palliative care. Community out-reach, screening programs, treatment, follow-up sponsored by Ampath including patient accommodation and follow-up visits provide a conducive environment for our patients to undergo treatment and could account for improved outcomes in good prognostic groups.

CONCLUSION Our study shows that young women make up majority of breast cancer patients in Western Kenya. Even though majority have bad prognostic features, they can be navigated to improve outcomes. We therefore advocate for early screening, diagnosis and sponsorship for women below 40 years in order to improve survival.

Onyeka T

ENHANCING PALLIATIVE CARE IN ENUGU, NIGERIA: USE OF AN APP FOR SYMPTOM MANAGEMENT

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[1]University of Nigeria, [2]Federal Neuropsychiatry Hospital, [3]SCL Dynamics, [4]MCneri Technologies, [5]University of Northampton, [6]University of Nigeria Teaching Hospital, [7]Abia State University

MEETING ROOM 4

**Thursday
7 November 2019
10:30–11:30**

OBJECTIVE Palliative care growth in Africa is dynamically evolving but various factors militate against it. This was a preliminary study that aimed at comparing treatment outcomes (symptom reduction, loss to follow-up and satisfaction with care) among cancer patients utilising telehealth applications, such as a web-based app.

METHODS Following ethical approval, adult cancer outpatients (n = 120) were randomised to one of three groups to receive palliative care over a 3-month period (A = daily mobile application use [EPAC© app] and monthly clinic visits; B = daily phone calls and monthly clinic visits; C = monthly clinic visits only). At each visit, symptom burden, satisfaction with care and caregiver burden were assessed. Time to loss to follow-up was analyzed using Kaplan-Maier survival analysis.

RESULTS Participants (65% females) were mostly middle aged (mean age 53.5 ± 14.8 years), employed (78.3%), and cared for by a nuclear family member (90.8%). Attrition rate at month 3 for groups A, B, and C were 92.5%, 90.0% and 100%, respectively. Mean time to loss to follow-up for groups A, B, and C were 1.4 (95% C.I. = 1.2–1.6), 1.3 (95% C.I. = 1.1–1.6) and 1.0 (C.I. = 1.0–1.0), respectively with EPAC© app group having longest retention in follow-up (1.4-month). Group B participants were better satisfied with care received but it was not significant ($p > 0.05$). There were no significant differences among the three study groups with regards to patients' satisfaction with care, quality of life, symptoms report and caregiver burden ($p > 0.05$).

CONCLUSION Use of mobile application did not seem to promote increased follow-up visits for this cohort of palliative care patients, possibly because of the high attrition rates. However, findings support earlier reports of positive influence of mobile device use in improving certain outcome parameters in cancer patients. This study also highlights some pertinent issues that may hamper use of mobile phone apps in similar environments as this research environment. Future RCTs with well-structured retention strategies and taking present study limitations into consideration are warranted to further assess the EPAC© app's effectiveness.

Osinowo E

P228 | COMMUNITY BASED CERVICAL CANCER SCREENING FOR AFRICAN WOMEN: FINDINGS FROM THE TIMETOSCREEN INITIATIVE

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NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE Availability and affordability of cervical cancer screening is an issue causing low uptake of community screening services amongst African women, this is due to several reasons such as; the wrong perception towards screening, low awareness, cost of screening and treatment interventions, etc. The TimeToScreen (TTS) initiative by Sebeccly Cancer Care is a comprehensive breast/cervical screening and treatment campaign. The goal of this initiative is to improve awareness and increase access to breast/cervical screening and treatment amongst women in rural and urban communities. This study analyses the screening findings of the TTS initiative.

METHOD The TTS program conducted 20 free in-house clinics and 25 communities across SouthWest Nigeria. In 14 months, a total of 4,422 African women were screened for breast and cervical cancer. Baseline and follow-up data were used to access the screening outcome.

RESULT The uptake of cervical cancer screening services amongst the participants was 84% (3,698 women). Visual Inspection with Acetic Acid(VIA) was the primary screening method for 98.38% (3,639 women),1.5% (55 women) conducted pap smear and 0.14% (5 women) conducted Human Papilloma Virus DNA. Only 3.27% (121 women) of the participants had a positive acetowhite lesion on VIA testing of which diagnostic colposcopy was conducted for 57.02% (69 women) of the participants. A total of (30.43%) 21 women were diagnosed with Cervical Intraepithelial Neoplasm and treated with cryotherapy. About 3.31% (4 women) were diagnosed with invasive cervical cancer.

CONCLUSION This study shows that there is a relatively high level of screening uptake by African women when available and made affordable. There is a need for more community education, screening, and treatment campaigns amongst African women.

Osobu B

P313 | DIAGNOSTIC BREAST ULTRASOUND: CLINICAL, RADIOLOGIC AND PATHOLOGIC FINDINGS

Osobu B[1], Adeniji-Sofoluwe A[1], Obajimi M[1]
[1]University College Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Sonomammography (Breast ultrasound) is a known adjunct to mammography but invaluable in the evaluation of mammographically dense breasts with palpable masses. In diagnostic work up of breast lesions, it can characterise masses into low, intermediate and high probability of malignancy. This study aims to describe the clinical, imaging and pathologic findings in women who underwent diagnostic Sonomammography in University College Hospital, Ibadan.

METHODS AND MATERIAL A descriptive study conducted at the Radiology Department of UCH Ibadan over a period of one year. Ethical approval was obtained from the joint Institutional review board of the UCH and UI. All patients for a diagnostic Sonomammography were recruited into the study after obtaining informed consent. Sonomammography was performed with BIRADS (Breast Imaging Reporting And Data System) categories assigned at the end of the scans. Patients with masses had tru-cut biopsy performed. Clinical data were obtained from patients' request cards. The sonomammogram images were obtained from the LOGIC General Electric Ultrasound machine.

RESULTS A total of 128 patients who had diagnostic sonomammography performed were studied. They were predominantly female 127 (99.2%) with age range of 15–75 years. More than half (56.3%) were in the 30–49 age group. Most of the symptoms in the patients were breast pains and lumps. Close to half of the patients 57/128 (44.5%) had no parenchymal lesions. Majority of the Sonomammographic findings in all age groups ranged from normal to probably benign findings. Final BIRADS Categories of 1–3 were predominant in younger age group, however Final BIRADS Category 4 and 6 were recorded in the older age group. There is positive association between the Final BIRADS category on Sonomammogram and Histology findings.

CONCLUSIONS In Nigeria, the absence of state of the art imaging modalities makes sonomammography an attractive diagnostic tool. Although breast cancer incidence is increasing on the continent, however, the majority of breast diseases are benign and primarily seen in women of reproductive age. The various Sonomammogram features are useful in distinguishing benign from malignant lesion.

Oyekunle A
DESIGN AND IMPLEMENTATION OF A SPREADSHEET-BASED CLINICAL DECISION SUPPORT SYSTEM FOR BUSY CHEMOTHERAPY CLINICS IN A RESOURCE-LIMITED SETTING
Oyekunle A[1,2], Ralefala T[2], Setlhako I[2], Martei Y[3,4]
[1]University of Botswana, [2]Princess Marina Hospital, [3]Botswana University of Pennsylvania Partnership, [4]University of Pennsylvania

MEETING ROOM 3

Thursday
7 November 2019
13:30–14:30

OBJECTIVE In spite of the increasing cancer burden, the available cancer specialists remain limited. This has led to the exploration of ways of improving access to quality cancer care within the available resources. Combination chemotherapy requires the consideration of several factors including the tissue diagnosis, immunohistochemistry, clinical stage, the treatment intent, patient clinical status, the preferred regimen and number of cycles, in addition to the functional status of the hematopoietic, hepatic and renal systems. This project aimed to design, implement and evaluate the appropriateness and effectiveness of a spreadsheet-based clinical decision support (CDS) system for cancer chemotherapy, designed for the busy resource-limited clinic setting, and especially those with limited numbers of specialists.

METHODS The current spreadsheet was designed from scratch using MS Excel elements including lists, formulas and VBA macros to automatically calculate relevant intermediate variables, which in turn result in adjustments of chemotherapy drug doses, accounting for patients' body habitus (body weight or surface area) and the functional state of the bone marrow, liver and kidneys. Adjustments are done in real time to achieve a personalised final regimen, without compromising patient safety and drug efficacy.

RESULTS The spreadsheet was used for training and later piloted among a group of 25 specialists, medical officers and oncology nurses in our chemotherapy clinic in Gaborone. Upon full implementation, the spreadsheet is expected to lead to a more efficient decision-making process, reduced patient waiting times, while ensuring stringent quality control measures.

CONCLUSION We conclude that cancer chemotherapy can be better implemented in busy oncology practices using appropriately designed CDS systems to improved patient care and safety, as well as improve efficiency, especially in settings with human resource constraints.

Oyekunle A

DESIGN AND IMPLEMENTATION OF A SPREADSHEET-BASED CLINICAL DECISION SUPPORT SYSTEM FOR BUSY CHEMOTHERAPY CLINICS IN A RESOURCE-LIMITED SETTING

Oyekunle A[1]
[1]University of Botswana

MEETING ROOM 1

**Tuesday
5 November 2019
11:30–13:30**

OBJECTIVE In spite of the increasing cancer burden, the available cancer specialists remain limited. This has led to the exploration of ways of improving access to quality cancer care within the available resources. Combination chemotherapy requires the consideration of several factors including the tissue diagnosis, immunohistochemistry, clinical stage, the treatment intent, patient clinical status, the preferred regimen and number of cycles, in addition to the functional status of the hematopoietic, hepatic and renal systems. This project aimed to design, implement and evaluate the appropriateness and effectiveness of a spreadsheet-based clinical decision support (CDS) system for cancer chemotherapy, designed for the busy resource-limited clinic setting, and especially those with limited numbers of specialists.

METHODS The current spreadsheet was designed from scratch using MS Excel elements including lists, formulas and VBA macros to automatically calculate relevant intermediate variables, which in turn result in adjustments of chemotherapy drug doses, accounting for patients' body habitus (body weight or surface area) and the functional state of the bone marrow, liver and kidneys. Adjustments are done in real time to achieve a personalised final regimen, without compromising patient safety and drug efficacy.

RESULTS The spreadsheet was used for training and later piloted among a group of 25 specialists, medical officers and oncology nurses in our chemotherapy clinic in Gaborone. Upon full implementation, the spreadsheet is expected to lead to a more efficient decision-making process, reduced patient waiting times, while ensuring stringent quality control measures.

CONCLUSION We conclude that cancer chemotherapy can be better implemented in busy oncology practices using appropriately designed CDS systems to improved patient care and safety, as well as improve efficiency, especially in settings with human resource constraints.

Oyesegun R

ACCESS TO CARE AND FINANCIAL BURDEN FOR PATIENTS WITH BREAST CANCER IN GHANA, KENYA, AND NIGERIA

Oyesegun R[1], Twahir M[2], Yarney J[3], Gachii A[4], Edusa C[5], Nwogu C[6], Ngoh C[7]
[1]National Hospital, [2]Aga Khan University Hospital, [3]Korle Bu Teaching Hospital, [4]Kenyatta National Hospital, [5]Sweden Ghana Medical Centre, [6]Lakeshore Cancer Center, [7]F. Hoffmann-La Roche Ltd

MEETING ROOM 3

Friday
8 November 2019
12:45–13:45

OBJECTIVE Breast cancer (BC) is the most frequently diagnosed malignancy and most common cause of cancer-related death in women in Ghana, Kenya, and Nigeria. We evaluated healthcare resource use and financial burden for patients treated at tertiary cancer centres in these countries.

METHODS Records of BC patients treated at the following tertiary institutions were included: Korle-Bu Teaching Hospital and Sweden Ghana Medical Centre (Ghana), Kenyatta National Hospital and Aga Khan University Hospital (Kenya), and National Hospital Abuja and Lakeshore Cancer Center (Nigeria). Patients presenting within a prespecified 2-year period were followed.

RESULTS The study included 299 patient records from Ghana, 314 from Kenya, and 249 from Nigeria. Use of common screening modalities (eg, mammogram, breast ultrasound) was <45% in all 3 countries. Use of core needle biopsy was 76% in Kenya and Nigeria, but only 50% in Ghana. Across the 3 countries, 91–98% of patients completed blood count/chemistry; only 78–88% completed tests for hormone receptor and HER2. Most patients underwent mastectomy (64–67%) or breast-conserving surgery (15–26%). A lower than expected proportion received HER2-targeted therapy (5–8%), suggestive of poor/absent insurance coverage. In Ghana and Nigeria, most patients (87–93%) paid for their diagnostic tests entirely out of pocket (OOP) versus 30–32% in Kenya. Similarly, the proportion of patients paying OOP only for treatments was high: 45–79% in Ghana, 8–20% in Kenya, and 72–89% in Nigeria. Among those receiving HER2-targeted therapy, average number of cycles was 5 for patients paying OOP only versus 14 for those with some insurance coverage.

CONCLUSIONS Patients treated in tertiary facilities in Sub-Saharan Africa lack access to common imaging modalities and systemic therapies. Most patients in Ghana and Nigeria bore the full cost of their BC care, suggestive of privileged financial status. Access to screening/diagnosis and appropriate care is likely to be substantively lower for the general population.

Painschab M
P349 | CHOP IS EXTREMELY COST-EFFECTIVE TO TREAT DIFFUSE LARGE B CELL LYMPHOMA IN MALAWI

Painschab M[1,2], Wheeler S[1,2], Kohler R[3], Gopal S[1,2]
[1]Unc Project Malawi, [2]University of North Carolina at Chapel Hill, [3]Harvard T.H. Chan School of Public Health

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Diffuse large B-cell lymphoma (DLBCL) is common in Africa, and often curable, but treatment costs and cost-effectiveness are key considerations; we sought to assess the cost-effectiveness of DLBCL with CHOP chemotherapy (cyclophosphamide, vincristine, doxorubicin, and prednisone).

METHODS We used a decision tree model to conduct a cost-effectiveness and budget impact analysis from a health systems perspective in Malawi (2017 GDP per capita $340). Comparisons were made between CHOP vs. palliative care with diagnosis (PC+D), and palliative care without diagnosis (PC-D). Microcosting was conducted for purposes of this study and clinical outcomes were derived from previously published prospective data. Costs reflect treatment and 2 years of follow-up. Outcomes reflect a lifetime time horizon. Life expectancies were derived from UN data, and disability-adjusted life year (DALY) weights from the Global Burden of Disease Study. Costs were analyzed in 2017 US $, and costs and outcomes were discounted at 3% annually. Annual estimates for new DLBCL cases (n=161) were used as input incidence. Probablistic sensitivity analysis was conducted using Crystal Ball software over 1000 simulations.

RESULTS In the base case scenario, under treatment with CHOP, 64 deaths and 1260 DALYs were averted compared to palliative care alone. The total cost of DLBCL treatment for 161 cases annually was $306,221 for CHOP, $117,098 for PC+D, and $53,958 for PC-D. For the base case, the incremental cost-effectiveness ratio (ICER) of CHOP versus PC+D is $150/DALY averted, and versus PC-D is $200/DALY averted. The ICER was stable across a wide range of sensitivity analyses. The ICER varied most across the range of progression-free survival estimates ($117–209), and range of costs for CHOP plus follow-up ($71–308). CHOP was extremely cost-effective by the WHO definition in 99% of simulations versus PC+D, and 94% of simulations versus PC-D. In the base case, total annual cost of DLBCL treatment with CHOP in Malawi was $306,221.

CONCLUSIONS This is one of the first rigorous cost-effectiveness and budget impact analyses for cancer treatment in a low-income country. CHOP is extremely cost-effective compared to palliative care, with ~$300,000 needed annually to treat all DLBCL cases in Malawi. These findings merit external validation, and support continued regional investments in cancer care.

Painschab M
PROSPECTIVE STUDY OF BURKITTS LYMPHOMA TREATMENT IN ADOLESCENTS AND ADULTS IN MALAWI

Painschab M[1,2], Westmoreland K[1,2], Kasonkanji E[1], Kaimila B[1], Zuze T[1], Waswa P[3], Gopal S[1,2]
[1]Unc Project Malawi, [2]University of North Carolina at Chapel Hill, [3]Texas Children's Hospital

MEETING ROOM 4

Wednesday
6 November 2019
14:40–16:30

OBJECTIVE Burkitts Lymphoma (BL) is common in sub-Saharan Africa (SSA). In high-income countries, BL is highly curable with chemotherapy. However, there are few prospective studies from SSA describing non-pediatric BL and no regional standard of care. We present here a summary of BL outcomes under local standard-of-care therapy in Malawi.

METHODS Thirty-five participants aged $\geq$15 years with newly diagnosed BL from 2013–2018 in Malawi were enrolled. Chemotherapy was administered according to local institutional guidelines, with concurrent antiretroviral therapy (ART) if HIV-infected.

RESULTS Median age was 21 (range 15–61) and 15 (43%) participants were HIV-infected. Twenty-seven (77%) participants had stage III/IV disease and 19 (54%) had ECOG performance status (PS) >1. Among HIV-infected, median CD4 count was 130 (range 29–605), and ten (67%) had suppressed HIV viral load. Four (11%) patients died before chemotherapy initiation. First-line chemotherapy consisted of CHOP in 22 (71%), infusional EPOCH in four (13%), high-dose methotrexate-based chemotherapy in four (13%), and rituximab+CHOP in one (3%). Among 28 evaluable participants, fourteen (50%) achieved a complete response and six (21%) achieved a partial response. Median overall survival (OS) was seven months; one-year OS was 40% (95% CI 24–56%). 16/22 (73%) deaths were from disease progression. Death was associated with worse PS, lower BMI, higher stage, higher LDH, and higher creatinine. Compared with CHOP, more intensive chemotherapy was associated with decreased mortality (HR 0.24 [0.05–1.02], p=0.05).

CONCLUSIONS This is among the best characterised prospective cohorts of non-pediatric BL in SSA. Most deaths resulted from progressive BL. Patients who received more intensive therapy appeared to have better outcomes. Defining optimal approaches is an urgent priority in SSA.

Painter H

LB025 | IMPACT OF CERVICITIS ON PERFORMANCE OF CERVICAL CANCER SCREENING USING HRHPV TESTING AND VISUAL EVALUATION IN WOMEN LIVING WITH HIV IN BOTSWANA

Painter H[1], Erlinger A[3], Simon B[1], Morroni C[1,2,5], Ramogola-Masire D[5], Luckett R[2,3,4]
[1]Botswana UPENN Partnership, [2]Botswana Harvard AIDS Initiative Partnership, [3]Beth Israel Deaconess Medical Center, [4]University of Botswana, [5]Liverpool School of Tropical Medicine

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To evaluate whether cervicitis reduces the accuracy of cervical cancer screening algorithms; using high-risk human papillomavirus (hrHPV) testing followed by visual inspection with acetic acid (VIA) or colposcopy in a cohort of women living with HIV (WLWH) in Botswana.

METHODS Prospective cohort study of WLWH in Botswana. All participants underwent hrHPV testing. All participants with positive hrHPV results underwent VIA, colposcopy, and biopsy. Histopathology was the reference standard for determination of cervicitis, pre-invasive cervical disease, and cervical cancer. Statistical analyses were calculated in SAS software including positive predictive value (PPV) and diagnostic accuracy (true positive + false positive/true positive + false positive + true negative + false negative). They were calculated to evaluate the accuracy of each cervical cancer screening algorithm based on either VIA or colposcopy and then compared between women with and without cervicitis.

RESULTS Among 300 women screened, 88 (29%) were hrHPV positive. Of those, 81 underwent visual evaluation and had histopathology results. 22 of 81 women (27%) had cervicitis and 28 of 81 women (35%) had high grade cervical intraepithelial neoplasia (CIN) defined as CIN2 or higher (CIN2+). For predicting CIN2+ in all subjects, positive hrHPV testing followed by VIA had a PPV of 39% [CI:24–55%] and a diagnostic accuracy of 52% [CI:41–63%]. PPV and diagnostic accuracy improved to 53% [CI:35–71%] and 58% [CI:44–70%] respectively when women with cervicitis were removed. Positive hrHPV testing followed by colposcopy had a PPV of 47% [CI:33–62%] and diagnostic accuracy of 61% [CI:49–71%] improving to 63% [CI:46–78%] and 71% [CI:58–82%] by excluding women with cervicitis.

CONCLUSION The accuracy of VIA and colposcopy in predicting pre-invasive cervical disease is reduced by the presence of cervicitis, even after primary hrHPV testing. Current World Health Organisation guidelines favour primary hrHPV testing as part of a two-stage screening algorithm. As the region moves towards use of hrHPV testing in the context of high prevalence of cervical infections, HIV and cervical cancer, more research is needed to understand this potential challenge for designing acceptable and effective screening programmes.

Parascandola M

P350 | TOBACCO CONTROL AND CANCER IN AFRICA: CONNECTIONS, COLLABORATION, AND DISSEMINATION AMONG AFRICAN TOBACCO CONTROL NETWORK MEMBERS

Parascandola M[1], Okamoto J[2], Twesten J[3], Leischow S[4]
[1]National Cancer Institute, [2]Mayo Clinic, [3]The Bizzell Group, [4]Arizona States University

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Tobacco use, the leading preventable risk factor for cancer worldwide, is increasing on the African continent. We assess current efforts and barriers to tobacco control and connections within the tobacco control community in Africa to identify opportunities to strengthen tobacco control efforts. **METHODS** An online survey was sent to individuals, coalitions, and organisations working in tobacco control in the African continent and a snowball sample design was employed to achieve saturation. The survey was administered in English, French, and Arabic and included basic demographics, FCTC articles of focus, barriers to tobacco control, and current tobacco control activities. Social network questions assessed connections between individuals and organisations and perceptions of influence in the region. **RESULTS** The survey was completed (n=221) in English (77.4%) and French (22.6%) with nearly 90.0% from an African country, and 10.7% from a non-African country. Most respondents were working in tobacco control research (38.0%), capacity building (10.0%), patient care/treatment (10.9%), and advocacy (12.2%). Barriers to tobacco control frequently cited were weak funding, tobacco industry interference, and research being a low priority. Significant differences by country were seen for work on the following FCTC articles: Protect ($F36,175=1.63$, $p=0.021$), Warn ($F36,175=1.64$, $p=0.019$), Enforce ($F36,175=1.90$, $p=0.003$), Raise ($F36,175=1.59$, $p=0.026$), and Industry Interference ($F36,175=1.61$, $p=0.023$). The collaboration network included 515 individuals with 702 connections between nodes. Individuals in the collaboration network were from 52 unique countries, with the largest numbers from Nigeria (14.7%), South Africa (7.1%), United States (6.9%), Tunisia (6.2%), Kenya (5.8%), and Uganda (5.6%). **CONCLUSIONS** There is an active tobacco control community in Africa, which has been advanced through the FCTC process. However, there remain substantial disparities in tobacco control efforts across African countries and research topics. Future tobacco control efforts could benefit from enhancing and building new collaborations across the region and with local and international partners.

Parikh A

P091 | POETIC (THE PROGRAM FOR ENHANCED TRAINING IN CANCER): AN INITIAL EXPERIENCE OF SUPPORTING CAPACITY BUILDING FOR ONCOLOGY TRAINING IN SUB-SAHARAN AFRICA

Parikh A[1], Fish M[1], Parkes J[2], Dharsee N[3], Dryden-Peterson S[4], Efstathiou J[1], Schnipper L[5], Chabner B[1]
[1]Massachusetts General Hosp. Cancer Center, [2]Univ. of Cape Town/Groote Schuur Hosp., [3]Ocean Road Cancer Inst., [4]Brigham & Women's Hosp., [5]Beth Israel Deaconess Medical Center Cancer Center

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Sub-Saharan Africa is simultaneously facing a rising incidence of cancer and a dearth of medical professionals due to insufficient training numbers and emigration, creating a growing shortage of cancer care. To combat this, Massachusetts General Hospital and Beth Israel Deaconess Medical Center partnered with institutions in South Africa, Tanzania, and Rwanda to develop a fellowship exchange program to supplement the training of African oncologists practicing in their home countries.
METHODS In its initial year, 2018, The Program for Enhanced Training in Cancer (POETIC) hosted a pilot cohort of n=7 fellows for three-week observerships in their areas of interest. Researchers distributed questionnaires for program evaluation to participants prior to arrival and upon departure; additionally, three participated in semi-structured interviews.
RESULTS Five themes emerged from the qualitative data: expectations of POETIC; differences between oncology in the USA and in SSA; positive elements of the program; areas for improvement; and potential impact. Fellows identified several elements of Western healthcare that will inform their practice: patient-centred care; clinical trials; and collaboration among medical, radiation, and surgical oncologists. From the quantitative data, feedback was primarily around logistical areas for improvement.
CONCLUSIONS POETIC was found to be feasible and valuable. The results from the pilot year justify the program's continuation in hopes of strengthening global health partnerships to support oncology training in Africa. One weakness is the small number of fellows, which will limit the impact of the study and the relevance of its conclusions. Future research will report on the expansion of the program and follow up with former participants.

Park J

P141 | BIOBANK STUDY FOR AFRICAN-AMERICAN PROSTATE CANCER PATIENTS USING FLORIDA CANCER REGISTRY DATA

Park J[1], Gwede C[1], Damonte J[1], Yamoah K[1], Benson C[1], Park H[1], Jamison K[1], Kim Y[1], Dhillon J[1], Pow-Sang J[1], Roy S[2], Pollack A[3], Masood S[4]
[1]Moffitt Cancer Center, [2]Penn State University, [3]University of Miami, [4]University of Florida

NEW HALL

Tuesday
5 November 2019
18:15–20:00

Significant racial disparities exist in prostate cancer (PCa) incidence and mortality rates. Exploration of the basis for disparities would be enhanced by access to data and biological specimens on men of African Ancestry (AA). Unfortunately, AA men remain underrepresented in cancer biorepositories. To address this gap, we have embarked on an effort to create a state-wide biospecimen bank focused on AA men with PCa in Florida. The objective is to collect and manage patients' data, outcome information, and biospecimens from diverse AA men who have been diagnosed with PCa in Florida. Self-identified AA PCa patients, diagnosed between 2013 and 2017, who were living in Florida at the time of diagnosis were identified through the Florida State cancer registry. Potential participants were mailed packets describing the study, with follow-up by telephone to answer questions and obtain informed consent. Interested patients were screened for eligibility and asked to complete a questionnaire, provide a saliva sample, and provide permission to obtain their tumour tissue sample. The Florida Cancer Registry reported a total of 7,960 AA PCa cases during the ascertainment period. Information packets were sent to 6,232 AA. A total of 240 were found to be ineligible mainly due to deceased or non-English speaking patients. To date, 979 have consented to participate, 1,364 declined ether by mail (n=203) or phone (=1161), 1,028 could not be located, and 2,621 have not responded to the initial information packet/phone after total of 5 attempts. This yields a participation rate of 16.3% (979/6,232). The adjusted participation rate, or the percentage of participants who consented to participate out of those who had communication with the research team, is 42% (979/2,343). Primary reasons for declining include patients stating that they are not interested (73%), or too busy (8%). A significant inverse association was found between current age and participation rate (p<0.0001) but not insurance status. Older AA PCa patients were found to be less likely to participate in the study. We observed a significant trend between treatments and participation rates. AA men who had chemo treatments were less likely to participate in the study (p<0.01). Our results demonstrate that recruiting Blacks/African-American PCa patients in the biobank study using a cancer registry is feasible, yet difficult. Despite prevailing recruitment challenges, we implemented diverse recruitment methods to increase reach. These recruitment methods helped identify additional avenues for targeting this population to increase participation and, ultimately, address cancer disparities among this population.

Parker P
CLINICIAN-PATIENT COMMUNICATION SKILLS TRAINING IN ONCOLOGY

Parker P, Henry M[1]
[1]McGill University

MEETING ROOM 2

Tuesday
5 November 2019
11:30–13:30

Dr Parker, Dr Banerjee, and Dr Travado will describe communication skills training, both overall and in special contexts. Memorial Sloan Kettering Cancer Center has developed an evidence-based, robust program in communication skills training with a mission "to work in partnership with clinicians of all disciplines to improve communication with cancer patients and their families, and thus enhance overall adaptation to the illness." Recognising clinical challenges and developing healthcare provider-focused communication skills training to improve patient outcomes highlights the thematic similarity of many research endeavors in the Communication Skills Training and Research Lab. This presentation will include an overview of communication skills training for different oncology clinicians, followed by a focus on training clinicians caring for special populations, i.e., older adult with cancer, and pediatric patients. We will conclude with an overview of evaluation of communication skills training programs and future directions.

Lorenzoni C
P142 | CANCER INCIDENCE IN MOZAMBIQUE 2018

Lorenzoni C[2], Parkin M[1], Ferro J[3], Carrilho C[4]
[1]African Cancer Registry Network, Oxford, [2]Ministry of Health, [3]Hospital Central, Beira, [4]Hospital Central, Maputo

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE Data from population-based registries (PBCRs) are needed to estimate cancer patterns and trends in Mozambique.

METHODS Two PBCRs are now operational, in Beira (since 2005) and Maputo (since 2015). They collect data on all cancer cases diagnosed and/or treated in health facilities in these two cities and can calculate incidence rates based on cancers occurring in the residents of Beira district (462,000 population in 2016) and Maputo City (1,257,000 inhabitants in 2016).

RESULTS The national estimate of 25,600 new cases in the country in 2018 is based on the average of the incidence rates in the two registries. Overall, Kaposi sarcoma is the most commonly registered malignancy (27%) followed by cancers of the cervix (19%), prostate (7.5%), breast (6%) and liver (5.5%). There are some marked differences in the cancer patterns between the two cities. Incidence rates of Kaposi sarcoma in Beira are considerably higher than in Maputo, as are those of bladder cancer and cervix cancer. Conversely, the incidence of prostate cancer is higher in Maputo than in Beira, as is that of liver cancer. Although it remains high, liver cancer incidence is now much lower than 60 years ago, when the rates published in were the highest ever recorded in the Cancer Incidence in Five Continents series.

CONCLUSIONS The success of population-based registration in Beira and Maputo has allowed much better information on the national cancer profile. However, the differences in incidence between the two centres indicates that there are geographic differences in risk, and a cancer registry in Nampula, in the north of the country, is the next priority for the National Cancer Control Programme

Amuge C

LB002 | RURAL WOMEN'S PREFERENCES AND KNOWLEDGE FOR INTEGRATED, COMMUNITY-BASED SELF-COLLECTION FOR CERVICAL CANCER SCREENING IN RURAL UGANDA: THE ASPIRE MAYUGE PROJECT

Rawat A[1], Pedersen H[1], **Amuge C**[2], Orem J[2], Ogilvie G[1], Mitchell-Foster S[3], Nakisige C[2]
[1]University of British Columbia, [2]Uganda Cancer Institute, [3]University of Northern BC

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Uganda has one of the highest incidence rates of cervical cancer in the world (47.5/100,000/year), resulting from limited screening access and weak health systems centralised in the capital. Self-collection for cervical cancer screening (SC-CCS) is a strategy to improve screening access. The objective of this study was to understand 1) women's knowledge, preferences and barriers for SC-CCS, 2) barriers and facilitators to engagement in the current screening program and 3) health system challenges to implementation of SC-CCS.

METHODS Focus group discussions (FGDs) were administered from 4 purposively selected villages in a rural district of Mayuge, Uganda. Research assistants conducted FGDs with women's groups in communities in Lusoga. FGDs were simultaneously translated to English by research assistants and audio recorded with permission, verbatim translated and transcribed. Data from FGDs were analyzed using thematic content analysis in Atlas TI.

RESULTS A total of 40 participants were included from 4 FGDs. Knowledge of causes and risk factors for cervical cancer were limited across participants with many comments of supernatural causes. CCS is not widely accessible despite women's desire to be screened. Facilitators to accessing CCS and treatment include decentralised care, and community engagement and education. Barriers to accessing care included lack of transportation and knowledge, long wait times, and perception of poor quality and continuity of services when treatment is required. Challenges to the implementation of SC-CCS include: lack of human resources trained in CCS, the need for specimen transport networks from communities to laboratories, and lack of infrastructure at clinics.

CONCLUSIONS Self-collected cervical cancer screening within communities could potentially prevent the high mortality related to cervical cancer while working within the human and financial resource limitations of rural health systems. Program design must address women's preferences and break down identified barriers to care to ensure effective use of services.

Nakisige C

LB045 | INTEGRATED CERVICAL CANCER SCREENING IN MAYUGE DISTRICT UGANDA (ASPIRE MAYUGE): A PRAGMATIC CLUSTER RANDOMISED CONTROL TRIAL PROTOCOL

Nakisige C[2], Payne B[1], Mitchell-Foster S[3], Trawin J[1], Smith L[1], Orem J[2], Ogilvie G[1]
[1]University of British Columbia, [2]Uganda Cancer Institute, [3]University of Northern BC

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Cervical cancer is preventable with vaccination and effective screening, yet is responsible for many unnecessary deaths across Africa. Specific high-risk subtypes of human papilloma virus (HR-HPV) are established as the cause of cervical cancer. Our objective to compare the effectiveness of two community-based cervical cancer screening models using self-collected HPV testing: 1) Community health worker recruitment (door-to-door); and 2) community health meetings.

METHODS A pragmatic cluster randomised controlled trial design in Mayuge district; 31 villages will be randomised to one of two treatment arms. Women will be eligible to participate if they have no previous hysterectomy or treatment for cervical cancer or pre-cancer and are aged 25–49 years old. All participants will receive an integrated package of cervical cancer screening and education. Samples will be tested using GeneXpert point of care testing for HPV. All women who test positive for HR-HPV types will be referred to a designated health centre for follow-up by visual inspection with acetic acid (VIA) and treatment, when indicated. The primary outcome is rate of attendance for VIA follow-up after a positive HR-HPV test among all screened women. Secondary outcomes include screening uptake; HPV incidence; and CCS knowledge and patient reported experience. Cost-effectiveness analysis and process evaluation informed by the RE-AIM framework will also be completed to understand best practices for implementation of CCS in communities.

DISCUSSION The integration of a self-collected cervical cancer screening program using HPV testing within community-based health systems could increase access to screening and reduce cervical cancer rates among Ugandan women. Results from this study will inform the national scale-up of cervical cancer screening in Uganda, aligning with the WHO's target of achieving cervical cancer elimination through the pillar of increased HPV screening coverage.
Trial Registration: ISRCTN12767014

Peprah S

RISK FACTORS FOR BURKITTS LYMPHOMA IN THE EPIDEMIOLOGY OF BURKITT'S LYMPHOMA IN EAST-AFRICAN CHILDREN AND MINORS (EMBLEM) CASE-CONTROL STUDY IN UGANDA, KENYA, AND TANZANIA

Peprah S[1], Ogwang M[2], Kerchan P[3], Reynolds S[1], Tenge C[4], Were P[5], Kuremu R[4], Wekesa W[4], Sumba P[6], Masalu N[7], Kawira E[8], Magatti J[8], Kinyera T[2], Otim I[2], Legason I[3], Nabalende H[2], Dhudha H[8], Ally H[7], Genga I[5], Mumia M[5], Ayers L[9], Pfeiffer R[1], Biggar R[1], Bhatia K[1], Goedert J[1], Mbulaiteye S[1]

[1]National Institutes of Health, [2]St. Mary's Hospital, [3]Kuluva Hospital, [4]Moi Univ. College of Health Sciences, [5]Academic Model Providing Access to Healthcare, [6]Kenya Medical Research Institute, [7]Bugando Medical Center, [8]Shirati Health and Educational Foundation, [9]The Ohio State Univ.

MEETING ROOM 3

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVE Endemic Burkitts Lymphoma (eBL) accounts for half of all pediatric malignancies in equatorial Africa. eBL is associated with Epstein-Barr virus (EBV) and geographically with malaria. However; eBL incidence does not mirror the high prevalence of both infections, suggesting other risk-factors may be important. Therefore, we examined risk-factors in children from Uganda, Tanzania and Kenya.

METHODS Using standardised questionnaires and protocols, cases and matched population-controls were recruited, 2010–2016. Cases were histologically and/or clinically confirmed. Adjusted odds ratios of malaria-RDT and questionnaire variables association with eBL were computed using "baseline" logistic models adjusted for age, sex, and village characteristics and further for variables with a $p<0.05$ in the univariate "baseline" models.

RESULTS Of the 862 cases spotted, 697 eBL cases and 2,934 of the 2,970 invited population-controls were enrolled. Cases and controls had similar mean ages in Uganda (8·0 versus 7·7 years) and Tanzania (6·8 years versus 7·4 years) but they were younger in Kenya (6·6 years versus 7·4 years). eBL risk was decreased in children with higher maternal income (p-trend <0·001) and paternal education (p-trend <0·033), who reported malaria-attributed fever up to 6 months before enrolment (aORs=0·48–0·59), and tested malaria-RDT positive (aORs=0·33–0·43-fold). Risk of eBL was significantly elevated in children reporting indoor residual insecticide spraying (aORs=1·71–6·78), and ownership but non-use of bed nets (aORs=5·74–39·7), inpatient malaria treatment >12 months before enrolment (aORs=3·97–2.89), non-malaria-attributed fever within 6 months (aORs=3·88–8·82) and HIV (ORs 4·32–25·6).

CONCLUSIONS We identified known eBL associations with malaria (lower socioeconomic status) or immunosuppression-related BL (HIV), and novel associations opposite of what was predicted (mass malaria suppression) or not reported before (malaria-RDT, malaria history or other fevers ≤6 months before interview). Our findings update eBL epidemiology in East Africa, strengthens the evidence for the role of socioeconomic factors, and sheds new light on eBL and malaria history.

Phakathi B

P401 | CLINICO-PATHOLOGICAL CHARACTERISTICS AMONG SOUTH AFRICAN WOMEN WITH BREAST CANCER RECEIVING ANTI-RETROVIRAL THERAPY FOR HIV

Phakathi B[1], Cubasch H[1,2], Nietz S[1], Dickens C[1], Joffe M[2], Ruff P[1,2], Duarte R[1], Dix-Peek T[1], Jacobson J[3,4], Neugut A[3,4]

[1]University of Witwatersrand, [2]Wits Health Consortium, [3]University of Columbia, [4]University of Columbia

NEW HALL

Thursday
7 November 2019
16:30–18:00

PURPOSE Breast cancer is the most common cancer in women and a leading cause of cancer-related mortality worldwide. South Africa has the largest global burden of HIV infection and the largest anti-retroviral treatment (ART) program. This study aimed to analyse the association of HIV and ART use with breast cancer clinico-pathological characteristics.

METHODS Study participants were females, newly diagnosed from May 2015 through September 2017 with invasive breast cancer at two academic Surgical Breast Units in Johannesburg, South Africa at the Charlotte Maxeke Johannesburg Academic Hospital and Chris Hani Baragwanath Academic Hospital. We compared HIV-positive and HIV negative patients' demographic and clinical-pathological characteristics at the time of breast cancer diagnosis.

RESULTS Of 1050 patients enrolled, 1016 (96.8%) had known HIV status, with 226 (22.2%) being HIV positive. HIV positive patients were younger (median (IQR) age 45 (40–52) years), than HIV-negative patients (median (IQR) age 57 (46–67)) (p<0.001). HIV positive patients were more likely to be diagnosed with late stage breast cancer(p=0.01). However, HIV positive patients receiving ART at the time of breast cancer diagnosis were less likely to present with metastatic disease than those not on ART (p=0.05).

CONCLUSION HIV-positive patients present with breast cancer at a younger age and later stage disease than HIV-negative patients. Neither the duration of HIV infection nor ART use was associated with clinico-pathological characteristics of breast cancer.

Tomoka T

P161 | A PROSPECTIVE DESCRIPTION OF HIV-ASSOCIATED MULTICENTRIC CASTLEMAN DISEASE IN MALAWI

Tomoka T[1,2,3], Painschab M[1,2], Montgomery N[1,2], Seguin R[1], Mulenga M[4], Fedoriw Y[1,2], Gopal S[1,2,3]
[1]University of North Carolina Project-Malawi, [2]University of North Carolina at Chapel Hill, [3]University of Malawi College of Medicine, [4]Kamuzu Central Hospital

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE To describe diagnosis, treatment, and outcomes of patients with HIV+ multicentric Castleman disease (MCD) from a prospective cohort in Malawi.

METHODS We identified Adults ≥18 years with confirmed MCD between 2013–2018 enrolled in a prospective cohort of patients with lymphoproliferative disorders in Malawi. MCD diagnosis was based on lymph node biopsy with characteristic morphology and latency-associated nuclear antigen immunohistochemistry positivity in all cases. During most of the study, first-line treatment for MCD was etoposide and second-line treatment was CVP (cyclophosphamide, vincristine, prednisone). More recently, first-line treatment was changed to CVP due to seemingly longer response durations. After August 2016, based on frequent relapses after chemotherapy, we leveraged an ongoing phase II trial of rituximab with chemotherapy for diffuse large B-cell lymphoma to petition Malawi regulatory authorities to allow compassionate use exemption for rituximab to treat relapsed MCD. Given absent laboratory capacity to measure KSHV load or inflammatory markers in real time in our setting, treatment response was defined as completion of therapy with improved subjective systemic symptoms, improved clinical adenopathy and hepatosplenomegaly, and improved hemoglobin level, compared to baseline. Kaplan-Meier methods were used to estimate overall survival (OS).

RESULTS During the study period, we identified 22 (16%) MCD patients among 137 HIV+ adults with confirmed lymphoproliferative disorders. All MCD patients presented with lymphadenopathy. No HIV- or KSHV- MCD cases were diagnosed during this period. Median age was 41 years (range 27–57), 14 (64%) were male, and 8 (36%) received empiric tuberculosis treatment before MCD diagnosis. Twenty-one (95%) were on ART, with median ART duration 53 months (range 12–179), median CD4 count 306 cells/μL (range 2–1146), and 15 patients (68%) with suppressed HIV loads. Three patients had concurrent Kaposi sarcoma, and one met diagnostic criteria for hemophagocytic lymphohistiocytosis. Of eight patients with baseline plasma KSHV loads tested in the US, all were positive with median level 4.1 log10copies/mL (range 2.7–5.2). One-year OS was 68% (95% CI 42–85%). Of nine deaths, seven were from MCD, one from an infectious treatment-related complication, and one unrelated to MCD or treatment.

CONCLUSION MCD occurs relatively frequently in Malawi, and unlike high-income countries, is uniformly associated with HIV and KSHV. MCD presents significant diagnostic and treatment challenges in Sub-Saharan Africa. Improved awareness, laboratory capacity, and treatments are needed to address this likely emerging and under-recognised problem, but rapid progress is achievable even in low-resource settings through sustained multidisciplinary collaboration.

Phanga T

P162 | FACILITATORS AND BARRIERS TO TRADITIONAL MEDICINE USE AMONG CANCER PATIENTS IN MALAWI

Phanga T[1], Hill J[2], Seguin R[1], Manda A[1], Chikasema M[1], Gopal S[1,2,3], Smith J[2]
[1]Malawi Cancer Consortium and Regional Center of Research Excellence for non-Communicable Disease, [2]University of North Carolina, [3]University of Malawi College of Medicine

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE To identify primary factors affecting the use of traditional, complementary, and alternative medicine (TCAM) among cancer patients in Malawi.

METHODS We conducted 2 focus groups including cancer patients >18 years of age who presented to the Kamuzu Central Hospital (KCH) in Lilongwe, Malawi for a regularly scheduled visit between January and February 2018. The focus group guide focussed on assessing local attitudes towards TCAM and conventional treatment (CT). Focus group discussions were conducted in Chichewa, recorded, and transcribed in English. We analysed the data using thematic content analysis and transcripts were coded using Dedoose (version 8.0.35). We then developed data matrices to further stratify the data and identify prominent barriers and facilitators to TCAM.

RESULTS Among 13 participants, 8 (62%) were male, 8 (62%) resided in rural areas, and median age was 35 years (range 18–61). All were receiving CT for cancer, and 11 (85%) reported TCAM use. Predominant TCAM facilitators were cultural norms, CT failure, TCAM success, and access, while TCAM failure and CT success were major TCAM barriers. Cultural norms and access were primary determinants of first-line treatment selection, which was exclusively TCAM among participants who reported using both treatment modalities for a particular illness. The success or failure of TCAM and CT largely determined decisions to continue a given treatment modality as well as future treatment selection.

CONCLUSION Despite the complex nature of the healthcare sector in Malawi, our findings demonstrate a competent, pragmatic, and experience-based treatment selection process. Cultural norms and access are important determinants of first-line treatment while treatment outcomes determine subsequent care selection. Addressing these determinants should be prioritised as cancer control programs in SSA aim to provide care to populations in the most efficient and effective manner under highly resource-constrained conditions.

Tomoka T

P163 | HIGH PRE-TREATMENT PLASMA EPSTEIN-BARR VIRUS (EBV) DNA LEVEL IS A POOR PROGNOSTIC MARKER IN HIV-ASSOCIATED, EBV-NEGATIVE DIFFUSE LARGE B-CELL LYMPHOMA IN MALAWI

Tomoka T[1,2], Montgomery N[1,3], Randall C[3], Kaimila B[1], Fedoriw Y[1,3], Dittmer D[3], Gopal S[1,2,3]
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NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE To describe the prognostic utility of plasma Epstein-Barr Virus (EBV) measurement among patients with diffuse large B-cell lymphoma (DLBCL) in Malawi, where advanced imaging and molecular technologies for risk stratification are not typically available.

METHODS We measured plasma EBV DNA at diagnosis in a cohort of adult patients ($\geq$ 18 years) with DLBCL in Malawi between 2013–2016. All DLBCL diagnoses were confirmed by tissue biopsy, supported by manual immunohistochemistry and a weekly clinicopathologic teleconference attended by pathologists and oncologists in the United States and Malawi. Subsequently, tissue blocks were sent to the University of North Carolina at Chapel Hill for diagnostic confirmation. First-line chemotherapy for patients with DLBCL in this cohort was CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone), along with concurrent antiretroviral therapy in HIV-positive patients. All participants were followed until death, or administrative censoring on November 1, 2018, with none lost to follow-up.

RESULTS High plasma EBV DNA at diagnosis ($\geq$ 3.0 log10 copies/mL) was associated with decreased overall survival (OS) (P = 0.048). When stratified by HIV status, the prognostic utility of baseline plasma EBV DNA level was restricted to HIV-positive patients. Unexpectedly, most HIV-positive patients with high plasma EBV DNA at diagnosis had EBV-negative lymphomas, as confirmed by multiple methods. Even in these HIV-positive patients with EBV-negative DLBCL, high plasma EBV DNA remained associated with shorter OS (P = 0.014).

CONCLUSION These results suggest that EBV reactivation in non-tumour cells is a poor prognostic finding even in HIV-positive patients with convincingly EBV-negative DLBCL, extending the potential utility of EBV measurement as a valuable and implementable prognostic marker in Sub-Saharan Africa.

Phipps W

SINGLE CELL EVALUATION OF KAPOSI SARCOMA TUMORS REVEALS COMPLEX IMMUNE INFILTRATE

Phipps W[1,2], Coffey D[1,2], Kafeero J[3], Mooka P[3], Towlerton A[1], Warren E[1,2]
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MEETING ROOM 4

Wednesday
6 November 2019
14:40–16:30

BACKGROUND Kaposi sarcoma (KS) is highly associated with immunosuppression, and evidence suggests that KS oncogenesis is associated with loss of T-cell mediated control of human herpesvirus-8 (HHV-8). KS is a complex tumour, characterised histologically by spindle-like tumour cells infected with HHV-8 and marked inflammatory infiltrate. Identifying the elements that comprise the KS tumour, the phenotypic and translational state of these cell types, and how these cellular components interact in vivo will advance our understanding of KS tumorigenesis and guide the development of new targeted therapies.

METHODS We evaluated KS tumor and normal skin samples obtained from treatment-naïve HIV-positive and HIV-negative adults with KS enrolled in an ongoing study at the Uganda Cancer Institute in Kampala, Uganda. RNA was extracted from tissue that had been snap frozen or preserved in RNALater, and sequencing was performed on Illumina HiSeq 2500. Leukocyte composition within each biopsy was estimated using CIBERSORT, an analytic platform used to characterise cellular gene expression profiles. Single-cell suspensions of a subset of KS tumours were sorted and evaluated using targeted multiplex RT-PCR with primers specific for 24 genes relevant to immune cell lineage, function, proliferation, and exhaustion.

RESULTS CIBERSORT analysis of 39 KS tumours revealed that CD4 and CD8 T cells, monocytes, and macrophages represent the majority of intratumoral hematopoietic cells. To date, 2 cryopreserved single-cell suspensions have been analyzed. Candidate KS tumor cells with a CD34+/VEGFR3+/LYVE-1+ surface phenotype comprised 1.54% and 0.35% of cells from HIV+KS and HIV-KS subjects, respectively. Flow cytometric sorting showed populations of immune cells, including CD4/CD8, monocytes, and macrophages. Targeted transcriptional profiling of the single CD8+ T cells revealed significant heterogeneity in the expression of various genes, but uniformly low expression of genes associated with proliferation and functional activation, such as Ki-67, granzyme B, and TNFa (Figure). Analysis of additional KS tumour single cell suspensions is ongoing.

CONCLUSIONS Our findings to date indicate that the immune infiltrate in KS tumors is dominated by T-cells and macrophages. Initial analyses suggest that the transcriptional profile of immune cells in KS tumors is consistent with an "exhausted" profile, which may have implications for the use of anti-PD1 or other immunotherapies targeting T-cell exhaustion in the treatment of KS.

Phiri M

P314 | FEASIBILITY AND OUTCOMES OF ULTRASOUND GUIDANCE IN HIGH DOSE RATE BRACHYTHERAPY FOR CERVIX CANCER: THE CANCER DISEASES HOSPITAL EXPERIENCE, ZAMBIA

Phiri M[1], Msadabwe S[1], Munkupa H[1], Sichone J[2]
[1]Cancer diseases hospital, [2]University of Zambia

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Image guided brachytherapy has been demonstrated to improve overall dosimetry and treatment outcomes. CDH is in the process of introducing ultrasound as a guiding mechanism in intracavitary brachytherapy application. A change in protocol requires that evidence is generated to show increased benefit of a new system. The aim of the study was to evaluate the new system in order to generate evidence that supports implementation.

METHODS A total of 44 patients with stages 1–4 cervical cancer were randomly recruited into two equal arms. One arm utilised ultrasound as image guidance whilst the other used screening with only a C'arm fluoroscopy unit. Insertions in the latter were evaluated as either successful or not by using an ultrasound to assess if applicator had been inserted correctly. Data was analysed using Stata 13 and grapfpad prism.

RESULTS The mean age for the cohort was 50.4 years (SD 11.53). A total of 49 % were married whilst 29% were widowed. Slightly over half (55%) were HIV positive. In terms of tumour size mean area was 25cm^2 (SD 14.17) at initial assessment. At time of first brachytherapy 61% had a good tumour response. There was no significant difference in the time taken to complete the procedures. Overall 68% of all applications were considered successful. When Fisher's exact test was done, initial tumour stage, age, marital status, and applicator size had no effect on the successful application ($p > 0.05$). Tumour size at application and use of ultrasound had an association with successful application ($p < 0.05$). Regression module with the above variables was generated (R-squared 0.662). Ultrasound use was found to be a critical component ($p < 0.0001$) in the model.

CONCLUSION The use of ultrasound is associated with better application outcomes compared to use of C'arm only as image guidance.

Cuboia N

LB039 | CHALLENGES IN PALLIATIVE CARE IN DEVELOPING COUNTRIES: DAILY EXPERIENCE OF MOZAMBICAN PHYSICIANS

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[1]Maputo Central Hospital, [2]Medical School Porto's University

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Palliative Care is not integrated into the national health system in Mozambique, however, physicians deal with patients who need these care every day.

AIM To identify the care offered to patients in palliative care, and the challenges that physicians face in their daily practice, in the main hospital in Mozambique.

METHODS A qualitative, descriptive and exploratory study was conducted between December 2018 to January 2019 in Maputo Central Hospital. Data was collected by an individual interviewees survey directed to physicians in Oncology, Gastroenterology, Nephrology and Neurology. The sample was the intentional type, determined by saturation of responses in services with oncological patients. The analysis of the results was analysis' content method, Bardin's technique.The study was approved by the Institutional Committee of Bioethics for Health of the Faculty of Medicine & Maputo Central Hospital and by the Bioethics Committee of the School of Medicine of Porto´s University.

RESULTS Fourteen physicians surveyed participated in the interview, the mean age was 38 years and 13 years of working experience. Most of them (64.3%) were specialists. All interviewees deal with palliative care patients daily, but the majority of them (64%) hadn't training in palliative care. The care offered to these patients is focused on control of physical symptoms and psychosocial support. The main barriers were: lack of training in palliative care, difficulty in breaking bad news, lack of medication, excessive regulation in opioids' prescription, and lack of integration of palliative care in the education curricula and in the national health system.

CONCLUSION Mozambican's physicians do not have a holistic approach to palliative care patients, and they face enormous challenges in providing this care. The main barriers begins from training to access to essential medicines.

Pinto Miquidade E

P264 | PALLIATIVE CARE IN MOZAMBIQUE: GENERAL KNOWLEDGE, ATTITUDES AND PHYSICIANS' PRACTICES IN BREAKING BAD NEWS AND END-OF-LIFE ISSUES

Pinto Miquidade E[1], Marcos G[2], Gonçalves F[1], Sacralal J[2], Castro L[1], Rego G[1]
[1]University of Porto, [2]Eduardo Mondlane University

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Palliative Care remains limited, inaccessible or even absent in Low and Middle Income Countries. Although still challenging, diagnostic information, breaking bad news, and end-of-life decision making remain an essential part of medical practice.

OBJECTIVE to evaluate the knowledge, attitudes and practices of Mozambican's physicians in PC.

METHODS A cross-sectional study was conducted between 08/2018 and 01/2019 to physicians from different departments in 4 hospitals in Mozambique, after approval by the Institutional Committee of Bioethics in Health of the Faculty of Medicine / Central Hospital of Maputo (CIBS FM & HCM). Data was collected by a questionnaire and introduced and analyzed with SPSS Statisticssoftware (version 25).

RESULTS From a total of 306 physicians, 207 answered the questionnaire. The median age of respondents was 38 years with 9 years of working experience, in average. There was a predominance of females, resident physicians and surgery specialists. Of these 207 answered questionnaires: 83.8% answered that PC should be considered when patients cannot be submitted to surgery, radiotherapy, chemotherapy or other anti-cancer therapies; 87.3% believed that early integration of PC can improve patients' quality of life; 72.7% informs the patient about the cancer's diagnosis; 60.1% prefers to inform the diagnosis and prognosis to the family / caregivers; 50% knows what is a do-not-resuscitate order, and 51.3% know what palliative sedation is. But only 25% participants had correct answers general knowledge, and 24% of them knew all answers about euthanasia and related issues.

CONCLUSION Mozambican physicians have insufficient knowledge toward PC and related issues. More interventions and training should be done to improve PC in Mozambique.

Plousiou M

P241 | EXOSOME MEDIATED TRANSFER OF MIR-142-3P AND MIR-150-5P, CAN INHIBIT THE GROWTH OF RETINOBLASTOMA CELL LINE

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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The objective of this study is the identification of specific miRNAs, which are able to modify retinoblastoma progress through their transport by exosomes. Co-culture of monocytes with CHLA-215 retinoblastoma cell line, showed a significant growth decrease. Given the interaction between the retinoblastoma cells and monocytes we investigated the role of the supernatant in the exchange between the cell lines, by taking the product of the co-culture and then using it as a culture medium of the RB cells, analyzing afterwards the growth curve of CHLA-215 in order to assess a possible influence of the elements which were present in the supernatant.

METHODS After CHLA-215 culture with the above-mentioned medium, we determined that, even if monocytes were absent, the co-culture supernatant continued inhibiting the growth of RB. For these reasons we isolated the medium's exosomes with SEC (Size Exclusion Chromatography) and we further identified the enriched fractions to be analyzed through NANOSIGHT. Then, we performed a microArray miRNAs profiling of CHLA-215 and exosomal RNA derived from co-culture supernatant.

RESULTS As a result, two miRNAs (miR-142-3p and miR150-5p) showed to be particularly over-expressed both in the CHLA215 and in the medium used for their culture, comparing to their control cell line and to the normal supernatant respectively. Therefore, we provided evidence that miR-142-3p and miR150-5p were released by monocytes in the co-culture medium and that they were subsequently up-taken by RB cells within exosomes.

CONCLUSIONS We assume that miR-142-3p and miR150-5p are strictly related to the inhibition of the proliferative capacity of retinoblastoma cell line participating eventually to pathways associated to cell cycle progression. This study highlights the role of exosomic miRNAs and identifies new molecular targets of the microenvironment, which are able to control tumour progress.

Quadri O
LARYNGEAL CARCINOMA IN NORTHERN NIGERIA: A 20-YEAR REVIEW

Quadri O[1,2], Gbujie I[3], Ali A[1,2], Lawan A[1,2], Ibekwe T[3,4], Nwaorgu O[5,6]
[1]Gombe State University, [2]Federal Teaching Hospital, [3]University of Abuja Teaching Hospital,
[4]University of Abuja, [5]University of Ibadan, [6]University College Hospital

MEETING ROOM 4

**Friday
8 November 2019
08:30–10:00**

OBJECTIVE Laryngeal carcinoma is an important epithelial cancer of the head and neck region. The aim of the study was to determine the clinical profiles and management outcomes of laryngeal carcinomas at two different tertiary hospitals from different geopolitical region of Northern Nigeria.

METHODS It was a 20-year review of cases managed at the ENT-HN Surgery departments of University of Abuja Teaching Hospital, Gwagwalada, Abuja and Federal Teaching Hospital, Gombe from January 1999 to December 2018. Data from the clinic histology register and case notes of patients were collated and analysed according to the aim of the study, with simple descriptive statistics.

RESULTS There were 29 cases of laryngeal cancers managed within the study period, but 28 cases had complete data for the study, with a Male:Female of 13:1 and a mean age of 64.8 ± 16.6years. The commonest symptom was hoarseness (100%); others included dyspnoea (78.6%), odynophagia and dysphagia (25.0%) each, cough (21.4.0%), hemoptysis (17.9%). No aetiological factor was identified in most of the patients, while there were 4 (14.3%) long standing cigarette chain smokers. All the patients presented with late disease except two cases of carcinoma-in-situ, while others were squamous cell carcinoma. Ten (35.7%) patients had total laryngectomy with a complication rate of 40% while only 2 (7.1%) had radiotherapy. Five-year survival Post-laryngectomy was 20%. An interplay of poverty/ cost of care, delay in accessing radiotherapy, low motivation and lack of social support system had negative impact on the survival of patients and accounted for the loss to follow-up in the majority.

CONCLUSION This study revealed clinical profiles and management outcomes that are similar to findings in previous studies, with slight variation. Late presentation, poverty, untimely availability of radiotherapy, motivation and family support contributed significantly to survival

Quadri O

LB047 | PRE AND POST TREATMENT AUDIOLOGIC EVALUATION OF PATIENTS WITH NASOPHARYNGEAL/ LARYNGEAL/ SINONASAL CANCERS ON CISPLATIN BASED CHEMOTHERAPEUTIC REGIMEN

Quadri O[1], Shofoluwe N[2], Shuaibu I[2], Muhammad I[2], Dotiro C[2], Nwaorgu O[3]
[1]Gombe State University, [2]Ahmadu Bello University, [3]University College Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Cisplatin is a potent chemotherapeutic agent that is commonly used to treat a wide variety of tumours. Although highly effective, its administration is complicated by its ototoxic effect, a well known side effect that occurs in a significant number of patients. The hearing loss observed is typically irreversible, progressive, bilateral, high frequency sensorineural hearing loss associated loss associated with tinnitus. At present there is no approved method for protecting or remedying against deterioration of hearing status, therefore the detection and appropriate management of cisplatin induced Ototoxicity is reliant on effective audiological monitoring.

AIM To determine the hearing threshold/ pure tone averages and pattern of hearing loss among patients with nasopharyngeal/ laryngeal/ sinonasal cancers before and after undergoing cisplatin based chemotherapy.

METHODOLOGY This hospital based longitudinal study involved 54 participants attending oncology treatment centre of the Ahmadu Bello University Teaching Hospital Zaria. The study investigated the hearing thresholds, types and degree of hearing loss, through pure tone audiometry, before commencement of treatment and repeated at 3 months and 6 months after undergoing cisplatin based chemotherapy matched with control. The data was analysed using Statistical Package for Social Science version 20.

RESULTS Seventy two participants were recruited into the study but fifty four participants concluded the study. Eighteen of the participants for various reasons dropped out of the study. Of those that completed the study 31 had nasopharyngeal tumour, 14 had Sinonasal tumour and 9 had Laryngeal tumour.

Among the study group there are 39 males (72.2%) and 15 females (27.8%) with a M: F ratio of 2:6:1. The age of participants ranged from 13–68 years. (M=40.3years. SD=13.6).

In the better hearing ear 22 (40.7%) subjects and 6 (11.1%) controls have hearing loss pretreatment. There were 32 ears that showed changes in PTA after 3 months of cisplatin therapy and 68 ears showed changes at 6 months of therapy. These changes were either new onset SNHL or changes in severity of pre existing SNHL. The overall prevalence of Ototoxicity after 6 months of therapy was 62.9%.

CONCLUSION This study found that a significant number of patients with head and neck cancer have hearing impairment even before commencement of chemotherapy. Cisplatin treatment resulted into changes in pure tone averages either as new onset sensorineural hearing loss or worsening of existing hearing loss; this hearing loss appeared to progressively worsen over 6 months of this study.

Ramlachan P

PSYCHOSOCIAL AND SEXUAL COUNSELLING AND THEIR IMPLEMENTATION IN AFRICAN CANCER CENTRES

Ramlachan P[1]
[1]Newkwa Medical Centre

MEETING ROOM 3

Friday
8 November 2019
10:30–12:00

Psychosocial and sexual counselling are under appreciated, under recognised, under discussed and a commonly unaddressed need in the cancer care models in Africa.

The low 5-year survival rates in Africa are mainly associated with lack of early detection programs, adequate diagnosis, and treatment facilities, resulting in a high proportion of persons presenting with late-stage disease. "Psychosocial counselling" covers a group of nonpharmacologic therapeutic interventions that can address the psychological, sexual, social, personal, educational, fertility or relational needs of a patient. Common sexual issues affecting people with cancer issues to consider include sexual response, body image, intimacy and relationships, altered sexual function and satisfaction, vasomotor symptoms, and genital symptoms (women). In men, it also includes erectile dysfunction and the absence of ejaculation. Numerous studies have reported the issue of limited psychosocial support being available for cancer survivors in Africa

The overarching recommendation is that there be a discussion with the patient, initiated by a member of the health care team, about psychosocial and sexual health and dysfunction resulting from the cancer or its treatment. The integration of cancer programs into existing health care services in primary health-care facilities that are accessible to most women is one of the most reliable, cost-effective interventions that can be utilised in Africa The use of social media tools to bring information into the most rural areas with minimal or no cost will be explored. Special interest groups in AORTIC which can address these issues to bring care to all will assist in delivering HOLISTIC care to cancer patients.

Randall T

CHALLENGES AND OPPORTUNITIES IN THE INTEGRATION OF PATHOLOGY CONSULTATION INTO THE IGCS PROJECT ECHO GLOBAL TELEMENTORING PROGRAM

Randall T[1], Plotkin A[2], Chuang L[3], Ng J[4], Eiken M[5], Baker E[6], Dinh T[7], Rabban J[8], Nout R[9], Schmeler K[6]

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MEETING ROOM 4

**Thursday
7 November 2019
13:30–14:30**

OBJECTIVES The Extension for Community Healthcare Outcomes (Project ECHO) is a proven model to improve specialty care for underserved communities. The IGCS uses the Project ECHO platform to connect multi-disciplinary teams across disparate regions, through virtual tumour board case discussions and didactic presentations. In the Project ECHO sessions, international pathologists provide pathology review, which is often based on limited imaging embedded in Power Point slide presentations. We present an initial review of our experience integrating pathologists into the IGCS virtual tumour boards.

METHODS We solicited feedback from pathologists and clinicians participating in the IGCS Project ECHO sessions in individual and small group settings.

RESULTS Clinicians appreciate the inclusion of pathology images and teaching in Project ECHO sessions with good clinical and educational value. However, challenges were noted with engagement and scheduling with in-country pathologists. Challenges noted by the consulting pathologists included: being asked to offer an opinion with limited information or images, poor quality images, lack of the final pathology report, coping with apparent diagnostic errors, lacking an established relationship with the local pathologist, and the local pathologist not always being present to discuss or explain findings. Opportunities identified include establishing telepathology connections to facilitate case review, leveraging the IGCS Global Curriculum international mentor/local mentor/trainee model to create parallel and synergistic international and local pathologist collaborative relationships beyond Project ECHO sessions, further program strengthening through international exchange trips for international and local pathologists.

CONCLUSIONS Inclusion of pathology experts in Project ECHO sessions is key to successful tumour boards. Addressing the above-noted challenges will strengthen the entire collaboration.

Randall T

P093 | PROJECT ECHO: REACHING BEST PRACTICES IN GYNECOLOGIC ONCOLOGY THROUGH INTERNATIONAL VIDEOCONFERENCING WITH CASE MANAGEMENT AND DIDACTICS

Randall T[1], Plotkin A[2], Chuang L[3], Ng J[4], Baker E[5], Eiken M[6], Nout R[7], Dinh T[8], Schmeler K[5]

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES The IGCS has grown to all parts of the world in the past three years, adding many national societies and launching the Global Curriculum of gynecologic oncology fellowships in LMICs. With this growth there has been great enthusiasm to learn from new colleagues. The extension for the Community Healthcare Outcomes (Project ECHO) telementoring model has been known to improve patient outcomes in remote areas through sharing of best practices in specialty care.

METHODS The IGCS, in collaboration with M.D. Anderson Cancer Center, set up a Project ECHO platform in 2017 to connect members through monthly virtual tumour boards with planned didactic teaching sessions. Local sites present cases with relevant history, imaging and pathology. Multi-institutional groups of IGCS experts discuss best practices and make recommendations on management.

RESULTS The IGCS currently has 13 host sites participating in Project ECHO. Ten of these are Global Curriculum sites, while three are sites with established gynecologic oncology training seeking greater exchange of ideas in best practices. In 2018, 8 sites held 47 total Project ECHO sessions. Verbal and written feedback has been highly positive.

CONCLUSIONS Remote telementoring through Project ECHO videoconferences is feasible and acceptable, and highly valued by participants, across widely disparate settings.

Randall T

THE INTERNATIONAL GYNAECOLOGIC CANCER SOCIETY GLOBAL CURRICULUM: PARTNERSHIPS BUILDING CAPACITY AND EXPERTISE IN GYNAECOLOGIC ONCOLOGY FOR THE WORLD'S POOREST WOMEN

Randall T[1], Ng J[2], Schmeler K[3], Dinh T[4], Nout R[5], Eiken M[6], Covens A[7], Chuang L[8], Quinn M[9]
[1]Massachusetts General Hospital, [2]National University Cancer Institute, [3]M.D. Anderson Cancer Center, [4]The Mayo Clinic, [5]Leiden University Medical Center, [6]International Gynecologic Cancer Society, [7]University of Toronto, [8]Western Connecticut Health Network, [9]University of Melbourne

MEETING ROOM 4

**Wednesday
6 November 2019
14:40–16:30**

OBJECTIVES Women in low- and middle-income countries (LMICs) have higher rates of cervical cancer and comparable rates of other gynecologic cancers when compared to women in high-income countries, yet the majority of LMICs have few gynecologic oncologist and lack formal training programs. The management of gynecologic cancers must be adapted to available resources and to potential differences in disease presentation and biology in LMICs.

METHODS We developed an adaptable but universal curriculum for training in low resource settings. We supported collaborations between high- or middle-income country academic gynecologic oncologists and local mentors and trainees to either launch or strengthen formal gynecologic oncology fellowships. Milestones include progression through the curriculum, clinical training with local and international mentors, regular Project ECHO tumour boards, logging of cases and educational activities, and observerships at the international mentor's institution. Trainees sit for a final examination; those who pass are awarded a certificate of completion from IGCS.

RESULTS In 2019, IGCS is supporting 12 collaborative fellowships. Thirty fellows are in training, supported by 35 international mentors and 24 local mentors, and they have logged 1019 surgical procedures to date. Four major textbooks and the ACOG Prolog series have been donated to fellows. Forty-seven Project ECHO tumour boards were held in 2018. Fellows have travelled to host institutions in North America, Europe and Asia, and have attended international professional society meetings including: The Society of Gynecologic Oncology, the International Gynecologic Cancer Society, AORTIC, the African First Ladies Summit.

CONCLUSIONS The IGCS Global Curriculum is a novel model of sustained collaboration yielding academic quality, sub-specialty surgical training in resource limited settings

Rangeiro R

P402 | VULVAR CANCER IN MOZAMBIQUE: SURGICAL EXPERIENCE DURING THE INTERNACIONAL GYNECOLOGIC CANCER SOCIETY (IGCS) GLOBAL CURRICULUM AND MENTORSHIP PROGRAM

Rangeiro R[1], Changule D[1], Daude S[1], Cintra G[2], Vieira M[3], Schmeler K[4]
[1]Hospital Central de Maputo, [2]Hospital Sirio Libanês, [3]Hospital de Cancer de Barretos, [4]MD Anderson Cancer Center

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVES Although cervical cancer has a higher prevalence in Mozambique, vulvar cancer is the fourth most common gynecologic cancer and contains 5% of all malignancies of the female genital tract. The objective of this study is to describe the surgical treatment and the outcomes of the vulvar cancer patients at Maputo Central Hospital.

METHODS It is a retrospective study describing the vulvar surgical cases, performed as part of the fellows International Gynecologic Cancer Society (IGCS) Global Curriculum training in Maputo, Mozambique. From October 2016 to February 2019 medical records, clinical charts, and operative records of vulvar cancer patients were reviewed.

RESULTS Since the program started, we have done 16 surgeries for vulvar cancer: 11 radical vulvectomies with inguinal linfadenectomy, three simple vulvectomies and two wide vulvar resection. Four patients required vulvar flap reconstruction. No flap necrosis was reported and despite a partial wound breakdown in 6 (38%), all patients had satisfactory post-operative outcomes.

CONCLUSION We have been able to treat women with vulvar cancer mentored and supervised by the international mentors even when the patients needed flap reconstruction in vulvar excisions. This approach results in adequate cosmetic outcomes and good functionality of the vulva.

Richardson M

P043 | DEPLETION OF ACTIVATOR OF G PROTEIN SIGNALLING 3 IN TRAMP C1 CELLS INHIBITED CELLS PROLIFERATION, WOUND HEALING AND TUMOUR PROGRESSION

Richardson M[1]
[1]North Carolina Central University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

Prostate cancer (PCa) remains one of the main health challenges affecting the male population and is responsible for a large proportion of cancer-related deaths across the world. Activator of G protein Signaling 3 (AGS3/GPSM1) has been reported to be responsible for modulating a plethora of cellular functions within the cell. AGS3 consist of two segments: seven tetratricopepetide repeats (TPR) and four G-protein regulatory (GPR) motifs, connected by a linker region. The aim of this study is to evaluate the effect of AGS3 expression in PCa development and progression. To that end, CRISPR/Cas9 technology was used to inhibit AGS3 expression in the mouse PCa cell line TRAMP-C1 (TRAMP-C1/AGS3-/-). AGS3 depletion increased androgen receptor (AR) but decreased CXCR4 expression, when compared to control (TRAMP-C1-vector) cells. TRAMP-C1/AGS3-/- cells displayed delay wound healing and tumour growth in anchorage-independent soft agar assay. Xenografts from TRAMP-C1/AGS3-/- cells also showed decrease tumour growth in both C57BL/6 and nude mice, relative to control cells. Interestingly, tumour lysates from TRAMP-C1/AGS3-/- xenografts showed increase P38 and ERK MAP kinase activation, when compared to control cells. Expression of AGS3 in TRAMP-C1/AGS3-/- decrease ERK activation and restore AR level. Altogether, the data indicate that depletion of AGS3 in TRAMP C1 cells delayed tumour progression via a MAPK/AR/CXCR4 axis.

Rick T

P315 | PATTERNS OF CARE OF CANCERS AND RADIOTHERAPY IN ETHIOPIA

Rick T[1], Habtamu B[2], Tigneh W[2], Abrha A[2], van Norden Y[1], Grover S[3], Assefa M[2], Incrocci L[1]
[1]Erasmus Medical Center, [2]Tikur Anbessa Specialized Hospital, [3]University of Pennsylvania

NEW HALL

Thursday
7 November 2019
16:30–18:00

PURPOSE Radiotherapy (RT) is an essential component of cancer treatment. There is a lack of RT services in Sub-Saharan Africa as well as limited knowledge regarding clinical practices. The purpose of this study was to identify and describe the patterns for RT treatment in Ethiopia.

MATERIALS AND METHODS We retrospectively evaluated charts of 1823 patients treated with Cobalt RT at Tikur Anbessa Specialized Hospital (TASH) in Addis Ababa, Ethiopia, from May 2015 through January 2018. Paper charts were reviewed for patient and treatment characteristics. Descriptive statistics were computed using SPSS.

RESULTS Among treated cancer patients, 98% were adults (n=1784), 78% female (n=1426), 5% HIV positive (n=85), 30% were from Addis Ababa (n=555), and the median age was 48 years (IQR 38–58). Cervical cancer was the most frequent cancer treated (47%, n=851) followed by breast cancer (15%, n=274), and head and neck cancer (10%, 184). Seventy-three percent (n=1339) of patients presented at late stage and 62% received palliative RT (n=1138). The most frequent palliative RT regimen was 20 Gy in 2 fractions for cervical cancer and 20 Gy in 5 fractions for many other late stage cancers (n=672, 37%). The wait times were the shortest for patients receiving palliative treatment (median 0 days, IQR 0–15 days, n=1138), compared to long wait times for curative treatment (median 150 days, interquartile range 60–210 days, n=685). Three percent (n=56) had documented grade 3–4 toxicity; of these 59% were head and neck cancer (n=33).

CONCLUSIONS Cervical cancer accounted for half of patients treated thus a majority of patients were adult females. Most patients had advanced stage cancer and goals of care were palliative. Wait times were long for patients with curative intent cancer due to low capacity for RT services.

Ajeh R

P188 | VISUAL INSPECTION AFTER ACETIC ACID (VIA), COLPOSCOPY POSITIVITY, & ASSOCIATED FACTORS IN HIV+ / HIV− CAMEROONIAN WOMEN: IMPLICATIONS FOR CERVICAL CANCER PREVENTION IN RESOURCE LIMITED SETTINGS

Ajeh R[1,2], Adedimeji A[3], Fuhngwa N[1], Kendowo E[1], Anastos K[3], Dzudie A[1,4], Castle P[3]

[1]Clinical Research Education Network and Consultancy, [2]University of Buea, [3]Albert Einstein College of Medicine, [4]Douala Central Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE HIV-positive women in low-and middle-income countries (LMICs) have increased risk of pre-cancer and invasive cervical cancer (ICC), the 2nd common cause of cancer mortality in women in LMICs. Limited resources for cervical cancer screening justify the need for accessible and efficient screening methods. We describe cervical cancer screening results following visual inspection with acetic acid (VIA) and associated factors among HIV-positive and HIV–negative women in South-West Cameroon.

METHODS Screening (VIA, hrHPV self- and provider-collected specimens, pathology analysis), and traditional triage tests (HPV16/18/45 detection, VIA, Pap) were performed for HIV-positive and HIV-negative women aged 25–59 years receiving care in the Limbe Regional Hospital, Cameroon. Screened positive women underwent ICC diagnosis to obtain unbiased sensitivity and specificity estimates. Preliminary descriptive statistics was conducted to highlight agreement between VIA and colposcopy results and associated factors.

RESULTS We enrolled 417 HIV-positive and 279 HIV-negative participants. Mean ages were 42.2 (±7, 71) and 43.6(±8, 47) years respectively. Nearly half (45%) were married and 41% had no regular income. VIA positivity was 8.1% (8% among HIV-positives vs. 8.5% among HIV-negatives). Nearly all (96%) VIA-positives had a colposcopic impression of cervical cancer disease, while 81% of the VIA-negative, (who tested HPV-positive) were negative for the disease at colposcopy. Oral contraceptive use, recent CD4 count of ≤500 cells/μL, and tuberculosis were associated with being VIA positive (p<0.05). Logistic regression showed only CD4 count (≤500 cells/μL) was associated with VIA positivity (OR: 2.14; 95%CI: 1.09–4.21) among women living with HIV.

CONCLUSION This study found VIA positivity was similar by HIV status although it increased with greater immunosuppression in women with HIV. There was a strong agreement between VIA and colposcopy results. Understanding practical and effective cervical cancer screening strategies targeting women with HIV with poorer immune status in limited resource settings can improve ICC prevention.

Romanoff A

A COMPARISON OF LOCALLY ADVANCED BREAST CANCER IN NIGERIA AND THE UNITED STATES

Romanoff A[1], Olasehinde O[2], Goldman D[3], Oluwole O[2], Gemignani M[3], Kingham T[3], Alatise O[2]
[1]The Mount Sinai Hospital, [2]Obafemi Awolowo University Teaching Hospitals Complex, [3]Memorial Sloan Kettering Cancer Center

MEETING ROOM 4

**Friday
8 November 2019
08:30–10:00**

OBJECTIVE To compare treatment and outcomes of locally advanced breast cancer in Nigeria and the U.S., highlighting the impact of resource availability.

METHODS Retrospective review was performed at Memorial Sloan Kettering Cancer Center (New York, U.S.) and Obafemi Awolowo University Teaching Hospitals Complex (Ile Ife, Nigeria). Clinicopathologic information, diagnosis, work-up, and treatment of non-metastatic, T4 breast cancer patients treated at each institution from 2010–2016 were compared with Fisher's Exact Test, Wilcoxon Rank Sum test, and Log-rank test, where appropriate.

RESULTS 308 patients met inclusion criteria: 151 (49%) in Nigeria, and 157 (51%) in the U.S. All U.S. patients received neoadjuvant chemotherapy, vs. 86% in Nigeria (P<0.001). All patients in the U.S. underwent surgery, vs. 66% in Nigeria. Pathologic complete response was seen in the breast in 45 (29%) and 4 (4%), and in the lymph nodes in 66 (42%) and 26 (26%) of U.S. and Nigerian patients, respectively. Post-operative radiation was performed in 152 (97%) U.S. patients, vs. 16 (11%) Nigerian patients. Immunohistochemistry was performed in all U.S. patients, vs. 18% in Nigeria. All patients in the U.S. with hormone receptor positive tumours were offered endocrine therapy. In Nigeria, 10% of patients received endocrine therapy. All U.S. patients with Her2 positive tumours received one year of anti-Her2 therapy; no patients in Nigeria were offered Her2 targeted treatment. Estimated 5-year survival was 61% (48.3–70.7 95% CI) from the date of presentation in Nigeria, compared with 72% (61.7–79.7 95% CI) from the date of diagnosis in the U.S. (p=0.005).

CONCLUSION These data support the importance of addressing access to breast cancer care in Nigeria. Effective neoadjuvant chemotherapy is necessary to help downstage disease, allow for more effective locoregional treatment, and reduce morbidity and mortality.

Kiyeji L

P053 | BREAST CANCER TREATMENT AT A ZONAL HOSPITAL IN MWANZA, TANZANIA

Sood R[1], **Kiyeji L[2]**, Chao C[1], Rositch A[1]
[1]Johns Hopkins Bloomberg School of Public Health, [2]Bugando Medical Centre

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES We aim to characterise current treatment regimens at a zonal hospital in Mwanza, Tanzania to identify potential areas for interventions aimed at decreasing mortality from breast cancer (BC).

METHODS This is a retrospective review of BC cases from April 2015–January 2019. Data were extracted from 235 medical charts of women treated for BC at the Bugando Medical Center, including diagnostic reports and treatment regimen information. All data were verified with clinical notes.

RESULTS After exclusion of 71 patients with insufficient clinical information, 164 patients treated for BC were included. Mean age at presentation was 49 years (range: 22–93). Most women were post-menopausal (43%) and the majority did not have diagnostic breast imaging (67%). 130 underwent surgery as primary treatment, 68% of which were unilateral mastectomies. 103 were prescribed adjuvant chemotherapy, 79% of whom received chemotherapy. Hormone therapy was given to 38% of women, but only 3% received radiation therapy. For those with available histopathology (113), median turnaround time was 36 days (range:1–202). In terms of tumour size, 3% were <2 cm, 24% were 2–5 cm, 26% were >5 cm, and 47% were unknown. Nodal status, from axillary dissections, was positive in 38 (34%) women. 104 (92%) of the carcinomas were invasive and 9 (8%) were in situ. The majority were Elston grade III (34%), although information was unavailable for 33% of women. Of the 10 (9%) who underwent hormone receptor testing, 4 were ER-/PR-, 5 were ER+/PR+, and 1 was ER+/PR-.

CONCLUSIONS Most patients with suspected or confirmed BC receive some medical therapy, but treatment is not always based on tumour clinicopathologic characteristics and is predominantly surgical in nature, highlighting areas to address to improve BC outcomes and make best use of available resources. Further research will delve into specific chemotherapy regimens and their appropriateness based on cancer subtype.

Ruhangaza D

DIAGNOSTIC APPLICATIONS OF TELEPATHOLOGY: ISSUES WITH SET UP, QUALITY ASSURANCE AND QUALITY CONTROL

Ruhangaza D[1], Rusangwa C[2], Milner D[3]
[1]Butaro Hospital, [2]Partners in Health/Inshuti Mu Buzima, [3]ASCP Center for Global health

MEETING ROOM 4

Tuesday
5 November 2019
09:00–11:00

OBJECTIVE Describing challenges and opportunities related to telepathology set up, quality assurance and quality control especially in low-resource settings.

METHODS The Butaro Cancer Centre is located in the Northern rural province of Rwanda. It is a public institution and a referral cancer centre with a support of Partners in Health, a non-profit organisation. Since 2016, telepathology equipment was installed in the pathology laboratory with the support of American Society for Clinical Pathology, to facilitate cancer diagnosis with collaboration with different US-based volunteer pathologists. We are here sharing our three years experience in using telepathology for cancer diagnosis in low-resource setting.

RESULTS Having telepathology services contributed in cancer diagnosis especially in facilitating expert consultation for challenging cases. Instead of sending paraffin embedded tissue blocks or glass slides for review and diagnosis, a slide scanner was used to generate digital whole slide images that were uploaded in the system and sent to reviewers using the image management software. The system offers a combined static and dynamic telepathology. The reviewer can generate printable final report with additional notes for educational purpose. The quality assurance and quality control requires production of high quality glass slides without processing artifacts, selection of best representative slides to share, validation process of the whole system, training of staff involved in its use, image calibration and selection of recipient reviewers. The main challenges of using telepathology in resource-limited settings remain the cost of equipment and software, the equipment maintenance fee, the availability of a stable and broad-bandwidth internet network and the cost of storage of generated digital slides.

CONCLUSION Telepathology is a potential powerful tool in cancer diagnosis especially in areas with shortage of pathologists. However, there are many challenges that may retard its expansion. Partnership with local health institutions, manufacturers and laboratories in developed institutions can play a key role in bringing solutions.

Ruhangaza D

P390 | PATHOLOGY CHARACTERISTICS OF RETINOBLASTOMA DIAGNOSED AT A RURAL CANCER CENTRE IN RWANDA

Ruhangaza D[1], Mugabe M[1], Muvugabigwi G[1], Nshimiyimana I[1], Shyirambere C[2], Mpunga T[1]
[1]Butaro Cancer Centre of Excellence, [2]Partners In Health/Inshuti Mu Buzima

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Retinoblastoma (RB) is the most common primary intraocular malignancy of childhood. The main objective of this study was to describe the pathologic characteristics of enucleated eyes of patients diagnosed with RB, focusing on features related to high-risk of metastatic spread.

METHODS We conducted a retrospective review of all enucleated eye samples received in our pathology unit from January 2015 to October 2018. Information was extracted from our pathology reports and sample submission forms. Tissue blocks and glass slides were also reviewed where necessary. Data entry and analyses were performed using SPSS Version 16.0 software.

RESULTS A total number of 118 patients with RB were identified (56% male and 44% female). The median age at enucleation was 24 months and 89% were below 5 years. Unilateral disease was predominant at 95.5% and bilateral eye involvement was seen in 8.5% of cases. No trilateral cases were identified. The majority (90.7%) of patients had enucleation while 9.3% underwent exenteration procedure due to advanced disease. Most patients (92%) fell within Group E (very high-risk category), according to the International Classification of Intraocular Retinoblastoma. Pathologic high-risk characteristics were present as following: anterior chamber invasion (20%), massive choroid invasion (65%), optic nerve invasion (prelaminar: 6%, retrolaminar: 26%, resection line involvement: 22%) and extraocular extension at 34%).

CONCLUSIONS Our patients tend to present with characteristics for high risk of metastatic disease, probably due to late presentation. This may reflect a lack of awareness about early signs of RB in primary health care and the Rwandan population. Raising awareness about RB is needed.

Sabul C

P023 | ROLE OF COUGH MONITOR IN LUNG CANCER CARE: AMPATH MULTINATIONAL LUNG CANCER CONTROL PROGRAM EXPERIENCE

Sabul C[1], Chemweno C[1], Asirwa C[1,2], MLCCP Team[1]
[1]Academic Model Providing Access to Healthcare, [2]Indiana University

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE To outline the role of cough monitors in lung cancer care.

METHODS Involvement of cough monitors within the program started in November 2017. A total of 24 cough monitors from 12 different peripheral centres were trained on identification of signs and symptoms of lung cancer based on a simplified checklist especially for clients who had been treated for pulmonary TB and with Gene x-pert negative results and/or sputum AAFBs negative. The checklist included the following; persistent cough, shortness of breath/wheezing, chest pain unexplained weight loss, bloody sputum, hoarseness of voice and difficulty in swallowing. Tools used by cough monitors include; a referral form that contains the clients' details and the weekly log that contains clients' contact information. Cough monitors liaise very closely with a cough monitor point person, an employee of AMPATH MLCCP who fills in a call log and contacts the clients referred. Clients who honour the referral are booked by the point person for further diagnosis by the MLCCP clinicians. Feedback which includes the diagnosis, is then given to the cough monitors on the progress of the referred clients for possible follow up.

RESULTS Since the inception of the linkage system by the program in November 2017, a total of 95 clients have been referred to the program. All the 95 clients came for further screening out of which, 27 (28.4%) were found with lung mass. Out of the 27 clients with lung masses, 9 (33.3%) were diagnosed with lung cancer. Others were diagnosed with other chronic lung conditions and care was given with back-referral to the community centres for further follow-ups.

CONCLUSION Involvement of cough monitors in the program has not only increased awareness on lung cancer within peripheral facilities but has also helped in increasing the number of patients with lung cancer who get optimal care.

PRESENTATION 787

LIGHTNING TALKS 4: BASIC SCIENCES | BIOLOGY | BIOMARKERS; CHEMOTHERAPY | SYSTEMIC THERAPY; SURGERY | SURGICAL ONCOLOGY

Sahabi S

MALIGNANT TESTICULAR TUMOURS IN SOKOTO, NORTH-WESTERN, NIGERIA: ANALYSIS OF 12 CASES

Sahabi S[1], Abdullahi K[1], Mohammed U[1], Agwu P, Khalid A[1]
[1]Usmanu Danfodiyo University Teaching Hospital

MEETING ROOM 3

Thursday
7 November 2019
13:30–14:30

INTRODUCTION Testicular cancer is a rare malignancy worldwide, particularly in Africa and black population of another continent. Its aetiology is largely unknown but can be associated with maldescended testis. Five factors may feature prominently in the increase frequency of testicular tumours. These include abnormal germ cell, elevated temperature, and interference with blood supply, endocrine disturbances and gonadal dysgenesis.

OBJECTIVES To highlight the pattern of malignant testicular tumours based on age of patient and histological types in Sokoto, North-western, Nigeria.

METHOD This was a retrospective study of all patients histologically confirmed to have malignant testicular tumour at the Usmanu Danfodiyo University Teaching Hospital, Sokoto from January 2006 to December 2015. Information was obtained from database of Department of Histopathology. The data were validated using Microsoft Excel and exported to SPSS for analysis. The data was analysed for age, sex and histological types using SPSS version 20 software. The results are presented in form of simple frequency, percentages and tables.

RESULTS A total of 12 patients were seen with histologically confirmed malignant testicular tumours out of the 3933 patients with malignancies between the years 2006 and 2015, accounting for 0.3% of all malignancies diagnosed in the same period. Their mean age was 34.67 with SD $\pm$ 30.6, and age range of 3–77 years. The two common malignant testicular tumour were yolk sac tumour 4 (33.3%) and metastatic carcinoma 4 (33.3%). Others were rhabdomyosarcoma 2(16.7%), Burkitts Lymphoma 1 (8.3%) and seminoma 1(8.3%).

CONCLUSION Malignant testicular tumours are rare in our environment. Yolk sac tumour and metastatic carcinoma are the predominant histological types. Late presentation, poverty, paucity of resources and the high cost of newer imaging and treatment modalities are major challenges suffered by these patients.

Sahabi S

P281 | GASTROINTESTINAL MALIGNANCIES IN A TERTIARY HOSPITAL IN NORTH-WESTERN NIGERIA: A HISTOPATHOLOGICAL ANALYSIS

Sahabi S[1], Abdullahi K[1], Mohammed U[1], Bashar B[1]
[1]Usmanu Danfodiyo University Teaching Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND The gastrointestinal tract and the accessory organs of digestion are responsible for more cancers and more deaths from cancer than any other system in the body. Yet, there is significant geographic variation in the rates of different gastrointestinal cancers worldwide.

AIM This study was undertaken to determine the relative frequencies and histopathological characteristics of gastrointestinal malignancies seen in a tertiary Hospital in Northwest Nigeria.

METHODOLOGY The material used for this study consisted of paraffin embedded tissue blocks, histology glass slides and histology report forms of all malignancies of the gastrointestinal system received between January 2006 to December 2015 in the Department of Histopathology, Usmanu Danfodiyo University Teaching Hospital. Data were analyzed using SPSS version 20 and expressed as simple frequency tables with percentages.

RESULT There were a total of 398 cases of gastrointestinal malignancies histologically confirmed out of 3933 malignancies during the study period, these constituted 10.12% of all the malignancies in the same period. The mean age of patients was 45.5 ± 16.7, with an age range of 3–90 years. The peak age incidences are 6thand 7th decade of life which constituted 43.7%. Two hundred and eighteen (54.8%) were males, and 180(45.2%) were females, with a male to female ratio of 1.2:1. About 48.7% (194 cases) of gastrointestinal malignancies were adenocarcinoma. Out of 194 cases, 49.% (95) were well differentiated, 41.2% (80 cases) were moderately differentiated, and 9.8% (19 cases) were poorly differentiated. The commonest anatomical site affected was Colorectum 174 (43.7%), followed by Anal 76 (19.1%), Gastric 53 (13.3%), Peritoneum 42 (10.6%) and Oesophagus 23 (5.8%)

CONCLUSION Colorectal adenocarcinoma remains the commonest GIT malignancies in our centre. However, our review highlights the need for incidence data in many regions of the world, particularly from developing countries. Future genetic studies in these regions are required to provide further insight into the genetic basis of these GIT malignancies.

Sahabi S

P282 | HISTOPATHOLOGICAL CHARACTERISTICS OF FEMALE GENITAL TRACT MALIGNANCIES: A REVISIT IN SOKOTO, NIGERIA

Sahabi S[1], Nnadi D[1], Mohammed U[1], Abdullahi K[1]
[1]Usmanu Danfodiyo University Teaching Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION Gynaecological malignances constitute the largest group of cancers in females. With the introduction of screening centres for cervical cancer in most teaching/specialist hospitals in Nigeria, it is hoped that the incidence of cancer of the cervix and other gynaecological cancers will be reduced.

OBJECTIVES The aim of this study was to determine the pattern and relative frequencies of gynaecological malignances as seen at Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria.

METHOD This was a retrospective study of all female patients who were histologically confirmed to have malignancies of the genital tract at Histopathology Department of Usmanu Danfodiyo University Teaching Hospital, Sokoto from January 2010 to December 2015. Information was obtained from database of Department using histology request cards, histology and cytology registers. The data were validated using Microsoft Excel and exported to SPSS for analysis. The data was analysed for age, sex and histological types using SPSS version 20 software. The results are presented in form of simple frequency, percentages and tables.

RESULT There were a total of 444 cases of gynaecological malignances seen during the study period. The mean age of female patient was 47.4 with SD±16.5, and age range of (3–92). 248 (55.9%) had cervical cancer, followed by ovarian cancer 105 (23.6%), uterine cancer 76 (17.1%), cancer of the Vulva 10 (2.3%), and vagina 5 (1.5%) respectively.

CONCLUSION Cancer of the cervix uteri ranked highest and it remained the most common female genital tract malignancy in our study. Health education and public enlightenment on the importance of routine screening and treatment of pre -malignant lesions of the cervix are necessary tools to reduce the incidence, morbidity and mortality associated with this disease.

Saidu R

SELECTING HPV GENOTYPES TO OPTIMISE PERFORMANCE OF GENEXPERT AND LINEAR ARRAY IN SOUTH AFRICA

Johnson L[2], **Saidu R[1]**, Mbulawa Z[1], Tergas A[2], Denny L[1], Kuhn L[2]
[1]University of Cape Town, [2]Columbia University, [3]Cepheid

MEETING ROOM 3

**Thursday
7 November 2019
13:30–14:30**

OBJECTIVE Compared to cytology, HPV DNA testing is highly sensitive but often lacks in specificity. Our objective was to investigate whether select combinations of HPV genotypes, ascertained by Linear Array (LA) and GeneXpert (GX), can optimise sensitivity/specificity trade-offs to detect CIN2+.

METHODS Seven hundred fourteen women aged 35 to 60 years were recruited in Cape Town, South Africa. Each woman underwent a pelvic exam to collect cervical samples (tested by LA and GX for 14 high-risk HPV genotypes) and biopsy, LEEP, or ECC (reviewed by a pathologist for CIN2+). Using multivariable logistic regression, we determined HPV genotypes 16, 18, 31, 33, 35, 52, and 58 were significantly associated with CIN2+ ($P<0.05$). We included these 7 types, along with HPV 45, in our sensitivity and specificity calculations of selected typing. Full typing included all 14 high-risk types.

RESULTS We found that sensitivity estimates for full typing were similar to that of selected typing: 89.2% (full) vs. 84.8% (selected) for LA and 91.6% (full) vs. 89.2% (selected) for GX. Specificity estimates improved for selected vs. full typing: 77.2% (full) vs. 82.4% (selected) for LA and 75.3% (full) vs. 80.2% (selected) for GX.

CONCLUSION To optimise the performance of GX and LA as tools for cervical cancer screening in high-burden, under-resourced settings like South Africa, only HPV 16, 18, 45, 31, 33, 35, 52, and 58 should be included to define screen-positive. We recommend inclusion of HPV 45 for its known link to adenocarcinoma. HPV 51, 59, 39, 56, 66, 68 could be considered for exclusion.

Saidu R
THE FUTURE OF POINT OF CARE SCREEN AND TREAT IN AFRICA

Saidu R[1]
[1]University of Cape Town, [2]South African Medical Research Council

PLENARY VENUE

Wednesday
6 November 2019
08:30–10:00

The World Health Organization (WHO) recommended screen and treat strategies for low-income countries to overcome some of the challenges of cytology-based multiple visit screening strategies. Currently, molecular HPV tests are the recommended screening tests in a SAT setting, and where this is not available, visual inspection with acetic acid (VIA) can be used. With advancing technologies, point of care (POC) molecular HPV testing methods are becoming available. Visual Inspection with Acetic acid (VIA), while truly a point of care test, is fraught with logistical and quality assurance issues. Cryotherapy is the most common treatment modality used in SAT settings in LMIC. In recent years, the use of thermocoagulation has gained popularity due to the logistical issues surrounding the use of cryotherapy. In the very near future, many screening technological advances are expected. In our recent study, we improved the specificity of Xpert HPV test in HIV positive women by restricting the test to certain HPV types and changing the cycle threshold cutoffs to reduce overtreatment. Many HPV oncogenic biomarker tests are also currently in development to improve the diagnostic accuracy of traditional HPV tests Self-sampling for HPV testing is a strategy that seeks to address some cultural and logistical barriers to screening in LMIC. This method has been found to be acceptable by women and comparable to clinician collected samples. Many self-sampling devices currently being investigated. Enhanced digital analysis is truly POC devices that enhance the accuracy of detection of visual methods and allow real-time remote assistance by expert colposcopists. Many of these devices are at various stages of development. Artificial intelligence algorithms are being developed to detect premalignant and malignant diseases of the cervix from a single cervical image within seconds with over 90% accuracy. These algorithms are being incorporated into enhanced digital imaging devices. These technological advances are crucial to achieving the WHO target of screening 70% of women with a high-precision test, towards the elimination of cervical cancer.

Sakafu L

P024 | EVALUATION OF FACTORS RELATED TO DELAY IN PRESENTATION FOR IMAGING IN WOMEN WITH BREAST CANCER IN TANZANIA

Sakafu L[1], Sama Philipo G[1], Vallen Malichewe C[1], Fundikira L[1], van Loon K[3], Y Lee A[3]
[1]Muhimbili University of Allied Health Sciences, [3]University of California San Francisco

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Breast cancer is prevalent in developed and developing regions. The prognosis is worse in low- and middle-income countries (LMICS), where women are typically diagnosed at more advanced stages. In Tanzania, approximately 80% of women are diagnosed at stage III or IV. Factors associated with Tanzanian women delay for imaging diagnostic studies after onset of breast symptoms are not known.

OBJECTIVE To evaluate factors in the delay between symptom onset and diagnostic imaging among breast cancer patients in Tanzania.

METHODS This IRB-approved qualitative study was performed at Muhimbili National Hospital in Dar es Salaam, Tanzania. Women with pathologically confirmed breast cancer diagnosis after mastectomy were purposively recruited after obtaining informed consent. In-depth interviews from a pre-designed, open-ended questionnaire were conducted. Data on demographics, time from symptom to diagnosis, use or lack of breast imaging, psychosocial factors related to delay in imaging, breast cancer knowledge and pre-conceptions, health seeking behaviour, preference for alternative treatment, and the contribution of culture and norms will be collected. The transcribed interviews will be evaluated using thematic analysis with a grounded theory approach.

RESULTS This study is actively ongoing targeting recruit 25 patients. Currently 10% of interviews are completed which show our initial recurring themes for factors in delayed imaging presentation being lack of basic knowledge about breast cancer, financial hardship, access to healthcare facility and the role of culture (religious/ministries belief, prioritising family care) in decision making. Complete data will be compiled and analyzed, and the detailed formal analysis after complete patient recruitment and interviews will be presented at the AORTIC 2019 meeting.

CONCLUSIONS To our knowledge, this is the first study on factors involved in delayed imaging of symptomatic breast cancer in Tanzania. The long-term goal is to use this information to develop strategies to improve early imaging diagnosis of breast cancer in Tanzania.

Salamanca P

P143 | PROFICIENCIA DOS CUIDADOS A DOENTES COM CANCRO DA MAMA NO INSTITUTO ANGOLANO DE CONTROLO DE CANCER

Salamanca P[1], Sales I[1], Sebastião M[1], Fuentes A[1], Vunda I[1], Miguel F[1]
[1]Instituto Angolano de Controlo de Câncer

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVO O cancro da mama (CM) é prevalente na África Sub-Sariana, com uma taxa de mortalidade elevada e é necessário constituir equipas multidisciplinares para optimizar o seu tratamento. Avalia-se a proficiência dos cuidados a doentes com cancro da mama no Instituto Angolano de Controlo de Câncer (IACC).

MÉTODOS Coorte retrospetiva de casos de CM admitidos e/ou tratados em 2018 no IACC. Caracterização clínico-patológica da população. Em todos os casos foi efectuada avaliação anatomo-patológica no IACC. Aferida proficiência pela análise do tempo entre o diagnóstico e o início de tratamento.

RESULTADOS Incluídos 108 doentes (99% mulheres) com idade mediana de 45 anos (âmbito: 21–90). O CM (NST) invasivo foi o mais frequente (83.3%). Em 60.2% expressavam receptores de estrogénio e 38% de progesterona; 16.7% tinham sobre-expressão HER2 e 22.2% eram triplo negativo. A maioria apresentava doença localmente avançada ou metastática (estádio IIIB – 31.5%; estádio IV – 25.9%); e nenhum caso em estádio I. A quimioterapia neoadjuvante foi o tratamento primário mais realizado (35.2%), 47 doentes foram submetidos a tratamento cirúrgico (mastectomia radical modificada em 78.7% dos casos). Nenhum doente realizou radioterapia ou trastuzumab por indisponibilidade da técnica e do fármaco. A mediana de tempo entre a primeira consulta e o diagnóstico foi de 34 dias. A mediana de tempo entre o diagnóstico e a consulta de decisão terapêutica multidisciplinar (CDTMD) foi de 31 dias (âmbito: 25–37) e entre a CDTMD e o primeiro tratamento oncológico de 8 dias (âmbito: 3–13). À data de encerramento do estudo 31 doentes tinham-se perdido para o seguimento (12 antes do diagnóstico histológico; 1 antes da CDTMD; 11 antes do início e 7 durante o tratamento).

CONCLUSÃO O diagnóstico do cancro da mama em Angola é tardio, é necessário explorar formas de cuidados integrados que permitam reduzir o tempo para diagnóstico, decisão terapêutica e o início de tratamento.

Salmi F

P144 | TRADUCTION ET VALIDATION DE LA QUALITÉ DE VIE DES PATIENTS ATTEINTS DU CANCER DE LA PROSTATE AU SEIN D'UNE POPULATION MAROCAINE

Salmi F[1], Bendahhou K[2], Jouhadi H[1]
[1]Université Hassan II, [2]Registre des cancers de la région du grand Casablanca

NEW HALL

Tuesday
5 November 2019
18:15–20:00

RÉSUME L'objectif de cette étude était d'étudier les propriétés psychométriques d'une version dialectale Marocaine du questionnaire de la qualité de vie PR-25 (EORTC QLQ-PR25). L'étude a été menée auprès des patients du service d'oncologie du Centre Hospitalier Universitaire Ibn Rochd de Casablanca, Maroc. L'étude a porté sur des patients atteints du cancer de la prostate suivie au sein du centre Mohammed VI pour le traitement des cancers durant la période de l'étude. Un total de 82 sujets ont été inclus, dont l'âge moyen était de 69,6 ans avec un écart type de 7,9 ans. La majorité d'entre eux étaient analphabètes avec une proportion de 59,8%, les personnes issues du milieu urbain représentaient environ 60%. Une bonne fiabilité a été révélée pour la version dialectale Marocaine avec un coefficient alpha de Cronbach allant de 0,17 pour la dimension «fonction sexuelle» à 0,83 pour la dimension «symptômes urinaires». La reproductibilité de l'échelle était bonne avec des coefficients de corrélation intra-classe allant de 0,69 pour la dimension «fonction sexuelle» à 0,87 pour la dimension «symptômes urinaires». La version dialectale obtenue a montré une bonne fiabilité pour la dimension «symptômes urinaires» et acceptable pour les autres dimensions sauf pour «fonction sexuelle» qui n'était pas satisfaisante.

Salomao J

A BROAD OVERVIEW OF SURVIVAL AND SURVIVORSHIP: WHAT DOES IT MEAN TO BE A "CANCER SURVIVOR" IN AFRICA: MOZAMBIQUE ILLUSTRATION

Salomao J[1]
[1]Self

NEW HALL

Friday
8 November 2019
07:15–08:20

The author describes the bleak picture in cancer care in Mozambique. The nonexistence of routine health checkups generally leads to the detection of cancer cases in advanced stages, making treatment and recovery a great challenge. Only a handful of people have health insurance and the provision of health services to the population in general falls well short of the theoretical right to them. Patients diagnosed with cancer almost face a death sentence, as they are unable to pay for the treatment. A few life stories of patients are presented showing either the way how they were able to raise the required funds or, for another patient, there has been no success in the effort to acquire the drugs for the prescribed treatment. As patients must go abroad for care or to complete treatment, the reasons behind the choice of the destination country are explained. The medical and social impact of delayed diagnosis or of not being able to afford the treatment are presented. The limited medical resources and the need to get the treatment drugs abroad enables cases of self-medication.

Samuel G

LB003 | PATIENT HOSTELS – AN APPROACH TO STRENGTHENING PEDIATRIC PALLIATIVE CARE IN UGANDA

Samuel G[1], Namulwa C[1], Schardt M[1], Buhiire Asimwe M[1]
[1]Kawempe Home Care (KHC)

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE In Uganda it is estimated that 7000 children are affected by cancer annually according to the medical registry in the Uganda Cancer Institute (UCI). Of these children 55% survive annually and yet in developed countries 80% of children are cured. This calls for a combined effort towards reducing the impact of cancer in Sub-Saharan Africa. Kawempe Home Care (KHC), a non-profit community based healthcare organisation in Kampala, opened New Hope Children's Hostel in September 2016 to provide palliative care for children with cancer who receive treatment at UCI. With our hostel, we aim to reduce the impact of childhood cancer through increasing access to specialist care for poor and vulnerable children from all over Uganda.

METHOD The hostel targets poor and vulnerable children from upcountry who receive cancer treatment at UCI, but cannot be accommodated at Mulago Hospital due to limited capacity. KHC collaborates with UCI to identify families in need of our service. KHC provides a child and one caretaker (e.g. a relative) with free accommodation, food, psychosocial support and daily transport to UCI. Psychosocial support includes counseling, spiritual care, informative sessions for children and caretakers, play and music therapy for children. Pain management is done by KHC medical staff through proper administering of morphine and other medicines prescribed by UCI. Through the MUAC-scale, we identify children with severe acute and moderate malnutrition and put them on specialised diet. In case of emergency, first aid provided and the child is rushed to UCI for further management. Children discharged from UCI and referred for palliation are linked to hospices nearby their villages for pain management.

RESULTS Between September 2016 and June 2019, 414 children and their caretaker have been hosted at New Hope Children's Hostel at KHC. Follow-up studies show that until to date 110 children successfully completed their cancer treatment and are now on quarterly routine medical review. 10 are on palliation in their homes, 195 are still on cancer treatment and sadly 99 children passed away. Assessment of child and caretaker psychosocial wellbeing with POS-C (Palliative Outcome Scale, APCA, 2012) indicates that our clients' overall disease-related quality of life improved throughout their stay at KHC.

CONCLUSION Our analysis shows a strong need for holistic palliative care services in pediatric oncology. The establishment of Patient Hostels can provide a viable solution to the care gap of limited access to specialist care for poor and vulnerable children in Uganda.

Sayed S

BETTER OUTCOMES IN BREAST PATHOLOGY: PRE-ANALYTICAL HANDLING OF BREAST SPECIMENS

Sayed S[1], Njoroge R[2], Mutebi M[1]
[1]Aga Khan University Hospital, [2]National Public Health Laboratory- Ministry of Health

PLENARY VENUE

Tuesday
5 November 2019
14:30–16:30

Using breast cancer as an example this presentation will provide a situational analysis of sample handling processes in sub-Saharan Africa, specifically in Kenya, and its impact on hormone receptor and HER2 results.The presentation will also discuss the efforts being made to standardise the pre-analytic processes of sample handling in Kenya and the move towards sample handling guideline development.

PRESENTATION 936

EDUCATION AND TRAINING IN ONCOLOGY IN AFRICA

Sayed S

IMPROVING ANATOMIC PATHOLOGY IN SUB-SAHARAN AFRICA TO SUPPORT CANCER CARE: THE EXPERIENCE OF KENYA WORKSHOPS

Sayed S[1,4], Wilson M[2,3,4], Eslan A[4], Lester S[4,5,6], Moloo Z[1,4], Guarner J[4,7]

[1]Aga Khan University Hospital, [2]Department of Pathology and Laboratory Services Denver Health, [3]University of Colorado School of Medicine, [4]African Strategies for Advancing Pathology, [5]Brigham and Women's Hospital, [6]Harvard University, [7]Emory University

PLENARY VENUE

**Thursday
7 November 2019
14:40–16:30**

In 2016–2017, the College of Pathologists of East Central and Southern Africa (COPECSA) in partnership with the University of Colorado Cancer Centre and African Strategies for Advancing Pathology (ASAP) was the recipient of an NCI PAR 15–155 initiative, a regional programme for improving anatomical pathology to support cancer care. This was a 17 month research strategy that focused on evaluating the best approaches to training pathologists and senior residents in East, Central & Southern Africa (ECSA) with high quality standardised cancer staging in order to determine which approach is most effective at improving the expertise of the pathology workforce in Low Middle Income Countries (LMICs). One outcome of the project was to share the lessons learned to contribute to future training efforts. A follow-up training workshop was held in November 2018 funded through an NIH R13 grant award. This presentation will describe the process of developing the curricula and the outcomes from these training workshops.

BREAST CANCER MOLECULAR PROFILING AND ITS PRACTICABILITY FOR AFRICA

Sayed S

TUMOUR INFILTRATING LYMPHOCTYES IN MOLECULAR SUBTYPES OF BREAST CANCER

Sayed S[1], Govender D[2], Naidoo R[2], Moloo Z[1], Gardner K[3], Yang R[4]
[1]Aga Khan University Hospital, [2]University of Cape Town, [3]Columbia University Medical Center, [4]National Cancer Institute/National Institute of Health

PLENARY VENUE

Thursday
7 November 2019
08:30–10:00

This presentation will provide a background of Tumour Infiltrating lymphocytes (TILs) in cancer and specifically in breast cancer and examine the link between the tumour microenvironment and molecular breast cancer subtypes, prognosis and clinical outcomes. The presentation will include preliminary results from a study examining TILs and molecular breast cancer subtypes in Kenyan women with breast cancer.

Schnipper L

HR-HPV SUBTYPE PREVALENCE IN RURAL ZIMBABWE IN HIV-POSITIVE AND HIV-NEGATIVE WOMEN

Schnipper L[1], Burke-Fitzpatrick M[2], Thistle P[3], Manasa J[5]
[1]Beth Israel Deaconess Medical Center/Harvard, [2]Stanford University, [3]Karanda Mission Hospital, [4]Chidamoyo Christian Hospital, [5]University of Zimbabwe College of Medicine

MEETING ROOM 4

**Wednesday
6 November 2019
10:30–11:30**

BACKGROUND High-risk human papilloma viruses (hr-HPV) are the primary cause of cervical cancer. HPV vaccination is expected to prevent cervical cancers caused by HPV types included in the vaccines, and perhaps by cross-protection from other types. This study was designed to determine the hrHPV type distribution in women at two rural communities in Zimbabwe.

METHODS We implemented a cross-sectional study in two rural communities in Zimbabwe. 618 community-based self-collected swabs were collected in the Chidamoyo region. Samples were initially analyzed by Cepheid GeneXpert with hrHPV typing analysis performed using SeeGene Anyplex RT-PCR. At the Karanda Mission Hospital, clinician-collected cervical swabs were obtained from 400 women presenting for visual inspection with acetic acid screening; hrHPV analysis was as described for the Chidamoyo cohort.

RESULTS Chidamoyo

- hr-HPV prevalence: 17% (105/618); 34% (39/115) vs. 13% (66/503) among HIV-1-positive vs. -negative participants, respectively
- HPV 35 was detected most frequently (20%); an equal percentage of HPV16, HPV18, HPV52, and HPV 68 were detected (16%).
- 30% of women had an infection with HPV16 and/or –18 (included in the bivalent vaccine)
- Only 40% of the women had an infection(s) that would be included in the 9-valent vaccine types

Karanda

- hrHPV prevalence: 17% (67/400); 28% (19/68) vs. 17% (69/400) among HIV-1 positive vs. negative participants, respectively
- 8/17 (48%) hrHPV isolates from HIV+ women not covered by vaccines in current use
- HPV16 – most frequent type 22% (15/67); second HPV35 – 18% (12/67) and HPV 18 – 10% (7/67)
- 45% (30/67) harbored an hrHPV type not covered by the vaccines

CONCLUSIONS As many as 45%-60% of hrHPV isolates from women in both rural hospitals are types not covered by the bivalent (HPV16/18) or 9-valent vaccines. HPV 35 was detected in 18 and 20% of isolates at Karanda and Chidamoyo respectively, and HPV 16 was detected in 22 and 16%, respectively.

Scott A

P316 | LOW DOSE RATE VERSUS HIGH DOSE RATE BRACHYTHERAPY FOR CERVICAL CANCER: THE EXPERIENCE OF A SINGLE INSTITUTION

Scott A[1], Yarney J[1], Jhingran A[2], Vanderpuye V[1], Aidoo C[1]
[1]Korle Bu Teaching Hospital, [2]MD Anderson Cancer Center

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE Brachytherapy plays a crucial role in the treatment of cervical cancer. In 2014, our institution transitioned from low dose rate (LDR) brachytherapy to high dose rate (HDR) brachytherapy. We report the clinical outcomes for cervical cancer patients treated with curative intent with LDR vs. HDR brachytherapy at our institution from 2008–2017.

METHODS This is a retrospective study of stage IB–IIIB cervical cancer patients, treated with primary radiotherapy from 2008–2017. Clinical and treatment prognostic factors including age, stage, relevant radiation doses, chemotherapy use, duration of treatment and toxicity data were recorded. The linear-quadratic formula was used to calculate the LDR dose-equivalent to Point A for the HDR treatments.

RESULTS Over the 10-year period, 284 LDR (2008–mid-2014) and 136 HDR (mid-2014–2017) patients fit the inclusion criteria. The average follow-up was 82.29 vs. 17.97 months in LDR vs. HDR group respectively. For all stages combined, the 2-year local control (LC) rates were comparable between the LDR and HDR groups (80.6% and 77.9% p=0.520) respectively. For stages IB, IIA, IIB, IIIA and IIIB disease, the 2-year LC rates for LDR vs. HDR were 65.4% vs. 64.3% p= 0.409, 86.3% vs. 90.0% p=0.680, 86.4% vs. 88.0% p=0.798, 66.0% vs. 60.1% p=0.674 and 77.0%vs 40.4% p= 0.004 respectively. Acute and Chronic toxicities for LDR vs. HDR were 30.3% vs. 31.6% p=0.781 and 43.7%vs.27.2%, p=0.001 respectively. The overall survival is pending.

CONCLUSIONS Comparable LC was observed for IB, IIA, IIB and IIIA patients treated with LDR or HDR brachytherapy. Also the chronic toxicity was better in the HDR group. It can therefore be concluded that HDR brachytherapy for the treatment of cervical cancer is a viable alternative to conventional LDR. However, poorer the LC rate observed for IIIB patients treated with HDR brachytherapy highlights the need for continued refinement of HDR methods at this institution.

Selekwa M

P229 | PROGRAM EVALUATION OF A THEORY-DRIVEN IMPLEMENTATION STRATEGY FOR TANZANIA'S NATIONAL CANCER TREATMENT GUIDELINES UPTAKE

Selekwa M[1], Meena S[2], Ruhar R[3], Lin T[3], Ndumbalo J[2], Van Loon K[3], DeBoer R[3]

[1]Muhimbili University of Health and Allied Sciences, [2]Ocean Road Cancer Institute, [3]University of California

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES Despite international efforts to develop resource-stratified cancer treatment guidelines, little research has been done on strategies for implementation. Ocean Road Cancer Institute (ORCI), in collaboration with Tanzania's Ministry of Health, developed National Cancer Treatment Guidelines to standardise cancer treatment within the country. We hypothesise that a theory-informed implementation strategy is the optimal way to ensure consistent use of guidelines. We aim to develop an implementation strategy for guideline-based practice at ORCI and evaluate its feasibility, adoption, and early effectiveness.

METHODS The COM-B/BCW (Capability, Opportunity, Motivation and Behaviour/Behaviour Change Wheel) framework was used to derive an implementation strategy. We then created a Logic Model to identify relevant indicators for program evaluation and classified them using the Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM) framework. Next, we developed a program evaluation plan using a pre-post design with mixed methods approach consisting of focus groups, field observation, and questionnaires. Focus groups will address the role of care delivery systems in guideline adherence. Direct observation will measure the activities and outputs of our intervention. Questionnaires will assess provider perceptions, attitudes, and motivations. Qualitative and quantitative data will be analyzed using the Framework Method and descriptive statistics, respectively.

RESULTS The phased implementation strategy will include: 1) guideline dissemination as hard and soft copies along with publicity campaign; 2) knowledge and skills training at a National Cancer Treatment Guideline Summit in 2019; 3) ongoing reinforcement through environmental restructuring, point-of-care clinical forms, and behavior modeling by champions. Results of the program evaluation will be presented.

CONCLUSION In Tanzania and other African countries, shifting to guideline-based practice requires modifications to clinical practices and provider behaviours; guideline publication alone is unlikely to result in meaningful change. Program evaluation of a theory-informed implementation strategy for guideline-based practice will facilitate dissemination and adaptation to other settings.

Selemane C

P404 | CARACTERÍSTICAS CLÍNICAS E ANATOMO-PATOLÓGICAS DOS DOENTES OPERADOS POR CARCINOMA COLORRETAL NO HOSPITAL CENTRAL DE MAPUTO DE 1 DE JANEIRO DE 2012 A 31 DE DEZEMBRO DE 2014

Selemane C[1], Arroz J[1], Lara V[1], Mapasse D[1], Carrilho C[1]
[1]Hospital Central de Maputo

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUÇÃO O carcinoma coloretal (CCR) é a doença cancerosa que afeta o intestino grosso e/ou o recto com maior disseminação mundial, e é a terceira causa mais frequente de mortalidade por câncro no mundo. Vários estudos sobre o CCR tem sido conduzidos em países de renda alta a média, porém, nenhum estudo foi conduzido em Moçambique. O objectivo deste estudo é de descrever as características clínicas e anatomo-patológicas dos doentes operados por carcinoma colorretal no Hospital Central de Maputo de Janeiro de 2012 a Dezembro 2014.

MATERIAL E MÉTODOS Foi realizado um estudo descritivo, transversal e retrospectivo, com recurso a dados secundários, onde foram descritas as características demográficas, clínicas e anatomo-patológicas, encontradas nos processos clínicos, relatórios anatomo-patológicos de todos doentes submetidos a tratamento cirúrgico e internados na enfermaria de cirurgia do Hospital Central de Maputo, no período entre Janeiro de 2012 e Dezembro de 2014.

RESULTADOS No período entre 2012 e 2014, foram registados 33 casos de cancro colorectal, dos quais 15 (45,5%) em 2012, 2 (6,1%) em 2013 e 16 (48,5%) em 2014. Dos 33 casos, a idade variou dos 20 a 76 anos com uma idade média de 46 anos (DP = 14,9). Vinte e cinco por cento dos pacientes com CCR tinham idade inferior a 32 anos. Dos 33 casos 67% eram do sexo masculino. O tamanho mediando do tumor foi de 3,0cm x 3,0cm x 2,0cm. Dos 31 pacientes com registo da localização do tumor, a maior parte (35,5%) foi no recto, seguido de colon ascendente (19,4%). Dos 11 pacientes com registo do estadiamento clínico de Dukes, a maior parte (54,5%) esteve no estadio B. Dos 26 pacientes com registo de características macroscópicas, 18.5% eram ulcerativos e úlcero-infiltrativos. Dos 33 pacientes com registo de informação do tipo histológico de cancro colorectal, a maior parte (66,7%) foi do tipo adenocarcinoma.

CONCLUSÕES Neste estudo o CCR afectou pacientes, de ambos sexos, na faixa etária dos 20 aos 76 anos, em que a maior parte estão localizados no recto. A maior parte dos CCR são do tipo histológico adenocarcinoma. Falhas no registo de informação importante foram observadas em várias variáveis clínicas e anatomo-patológicas.

Semeere A

TOWARDS THE DEVELOPMENT OF A POINT-OF-CARE DIAGNOSTIC TEST FOR CANCER: QUANTIFICATION OF KSHV DNA FOR THE DIAGNOSIS OF KAPOSI SARCOMA IN AFRICA

Semeere A[1], Lukande R[1], Ssemakadde M[2], Mwebesa B[3], Erickson D[4], Cesarman E[5], Martin J[6]
[1]Makerere University, [2]Masaka Regional Referral Hospital, [3]Mbarara Regional Referral Hospital, [4]Cornell University, [5]Weill Cornell Medical School, [6]University of California San Francisco

MEETING ROOM 4

**Wednesday
6 November 2019
14:40–16:30**

OBJECTIVE Delays and inaccuracies limit histopathologic diagnosis of Kaposi sarcoma (KS) in Sub-Saharan Africa. We hypothesised that quantification of DNA from the etiologic agent of KS, Kaposi sarcoma-associated herpesvirus (KSHV), could distinguish KS from non-KS and be developed into a point-of-care diagnostic test.

METHODS We performed skin punch biopsies among consecutive patients with skin lesions suspected clinically to be KS in Uganda. Histopathologic evaluation of the biopsies was done in Uganda and by up to 3 pathologists in the US. DNA from KSHV ORF 26 from the biopsy tissue was quantified by polymerase chain reaction (PCR), performed by conventional methods, and by loop-mediated isothermal amplification (LAMP), performed in a novel portable device named Tiny Isothermal Nucleic Acid Quantification System (TINY). Using consensus of the US histopathology as gold standard and receiver operating characteristics curves, we estimated the performance of PCR and LAMP via TINY for the diagnosis of KS.

RESULTS Among 506 participants with skin biopsies, consensus US pathology revealed that 330 biopsies were KS, 149 not KS and 27 indeterminate. Compared to gold standard pathology, sensitivity of African pathology was 95% and specificity 70%. Quantification of KSHV DNA by PCR found an area under the curve (AUC) of 0.96; at one optimal cut-point, sensitivity for KS was 98% and specificity was 90%. In the first 262 biopsies evaluated in TINY, AUC was 0.94, with an optimal cut-point yielding 86% sensitivity and 85% specificity. In this same 262 biopsies, AUC for PCR was identical, and an optimal cut-point yielded 87% sensitivity and 87% specificity.

CONCLUSIONS Quantification of KSHV DNA from skin lesions, using both PCR and a new portable device employing LAMP, can accurately distinguish a high fraction of cases of KS from non-KS in Africa. The findings set the stage for development of a point-of-care diagnostic test for KS.

Sengayi-muchengeti M
SURVIVAL FROM CANCER OF THE CERVIX IN SUB-SAHARAN AFRICA

Sengayi-muchengeti M[1,2], Joko-Fru W[3,4], Liu B[3,4], Singh E[1,2], Kantelhardt E[6], Parkin D[3,5]
[1]National Cancer Registry, National Health Laboratory Service, [2]University of the Witwatersrand, [3]The African Cancer Registry Network, [4]Oxford University, [5]University of Oxford, [6]Martin-Luther-University Halle-Wittenburg

MEETING ROOM 3

Wednesday
6 November 2019
14:40–16:30

BACKGROUND Cervical cancer is the most common cause of cancer death in African women. We sought to estimate population-based survival and evaluate excess hazards for mortality in African women with cervical cancer, examining the effects of country-level Human Development Index (HDI), age and stage at diagnosis.

METHODS We selected a random sample of 2760 incident cervical cancer cases, diagnosed in 2005–2015 from 13 population-based cancer registries in 11 countries (Benin, Cote d'Ivoire, Ethiopia, Kenya, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Uganda and Zimbabwe) through the African Cancer Registry Network. Of these, 2735 were included for survival analyses. The 1, 3 and 5-year observed and relative survival were estimated by registry, stage and country-level HDI. We used flexible Poisson regression models to estimate the excess hazards for death adjusting for age, stage and HDI.

RESULTS The mean age at diagnosis for the study cohort was 53.4 years, and among patients with known stage, 65.8% were diagnosed with late-stage disease. The 5-year relative survival for early-stage cervical cancer patients from high HDI registry areas was 67.5% (42.1–83.6) while it was much lower [42.2% (30.6–53.2)] for low HDI registry areas. Independent predictors of mortality were late-stage disease, medium to low country-level HDI and age >65 years at cervical cancer diagnosis. The estimated average relative survival from cervix cancer in the 11 countries was 69.8%, 44.5% and 33.1% at 1, 3, and 5 years, respectively.

CONCLUSION Factors contributing to the human development index (such as level of education and a country's financial resources) are critical for cervical cancer control in SSA and there is need to strengthen health systems with timely and appropriate prevention and treatment programmes.

Seraphin T

P146 | THE STATE OF DIAGNOSTIC WORKUP AND TREATMENT OF PROSTATE CANCER IN SUBSAHARAN AFRICA ON A POPULATION-BASED LEVEL

Seraphin T[1], Griesel M[1], Akele Akpo M[2], N'da G[3], Liu B[4], Jemal A[5], Kantelhardt E[1]
[1]Martin-Luther-Universität Halle-Wittenberg, [2]Cotonou Cancer Registry, [3]Registre des Cancers d'Abidjan, [4]African Cancer Registry Network, [5]American Cancer Society

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Prostate cancer (PCa) is the most commonly diagnosed cancer among men in Sub-Saharan Africa (SSA). This study aimed to characterise the diagnostic workup and the treatment patterns of PCa patients in the region.

METHODS We randomly selected 693 prostate cancer patients diagnosed between 2010 and 2015 from logbooks of 11 population-based cancer registries in 10 SSA countries (Abidjan, Addis Ababa, Bamako, Brazzaville, Bulawayo, Cotonou, Eldoret, Kampala, Maputo, Nairobi, Namibia). The register data were amended using medical records, pathology reports and/or phone calls to patients or patients' relatives. Data collection was conducted from September 2016 to May 2018.

RESULTS Of the 693 total patients, detailed information on tumour characteristics and treatment was available for 365 of the patients (229 cases non-metastatic and 136 metastatic, median age 70). Only 11% of these patients had documentation of complete diagnostic workup (including TNM stage, Gleason Score and PSA level). Gleason score was <7, 7 and >7 for 14.0%, 12.9% and 18.4% of the patients, while for 54.8% it was not documented. PSA level at diagnosis was <10 ng/ml, 10–19 ng/ml, 20–99 ng/ml, and ≥100 ng/ml for 3.3%, 1.9%, 11.0% and 17.8% of the patients, respectively, while for 66.0% it was not documented. Of the 229 non-metastatic patients, 17.5% received curative intent therapy, 55.0% underwent different kinds of cancer-directed therapy without curative potential and 27.5% remained without cancer-directed therapy. Of the 136 metastatic patients, 59.6% received androgen deprivation therapy (ADT), 17.6% underwent different kinds of cancer-directed therapy without ADT and 22.8% remained without cancer-directed therapy.

CONCLUSIONS Under-staging and under-treatment are the reality for many PCa patients in SSA. Our findings underline the need to improve diagnostic workup and access to care in the region as recommended by the newly released harmonised NCCN guidelines for Sub-Saharan Africa.

Seremba E

PREDICTORS OF IMMUNORESPONSE OF HIV-INFECTED ADULTS IN UGANDA TO THE HEPATITIS B VACCINE

Seremba E[1], Ocama P[1], Mayanja-Kizza H[1], Katabira E[1], Reynolds S[2,3], Casper C[4,5], Phipps W[4,5]
[1]Makerere University College of Health Sciences, [2]Johns Hopkins University, [3]National Institutes of Health, [4]University of Washington, [5]Fred Hutchinson's Cancer Research Center

MEETING ROOM 4

**Wednesday
6 November 2019
10:30–11:30**

BACKGROUND Coinfection with hepatitis B virus (HBV) and human immunodeficiency virus (HIV) is common in Sub-Saharan Africa (SSA) and can lead to progression of liver disease, cirrhosis and hepatocellular carcinoma (HCC). In Uganda HCC is the 3rd commonest cancer in males and 4th in women. 60–80% of HCC in Africa is attributed to HBV. Recent data demonstrate ongoing HBV transmission among HIV-infected adults in SSA, suggesting that HCC in the setting of HIV/HBV coinfection could be prevented with prior HBV vaccination. Because HBV vaccine efficacy is poorly understood among HIV-infected persons in SSA, we sought to characterise the humoral response of HIV-positive Ugandan adults to the vaccine.

METHODS We enrolled HIV-infected adults in Kampala, Uganda with no serologic evidence of prior exposure to HBV. Baseline socio-demographic variables, HBV and HIV history were obtained by participant interview and medical chart review. Three 20μg HBV vaccine doses were administered at intervals of 0, 1 and 6 months. Anti-HBs levels were measured at 4 weeks after the third vaccine dose. "Response" to the vaccine was defined as anti-HBs levels $\geq$10 IU/L and "high response" as >100 IU/L. Univariate and multivariate regression analysis were used to determine the predictors of vaccine response.

RESULTS Of 251 HIV-positive adults screened, 132 (53%) had no prior HBV-infection or vaccination and were enrolled. Most participants were women 89 (67%) and had a median (IQR) age of 32 years (27–41). 68 (52%) were on antiretroviral therapy >3 months. Median (IQR) CD4 count was 426 (261–583), and 64 (94%) of the 68 receiving ART had undetectable HIV RNA. Overall, 117 (92%) seroconverted to the vaccine (anti-HBs titers $\geq$10IU/L) with majority 109 (86%) being high-level responders (anti-HBs $\geq$100IU/L). Eight (6.3%) were low-level responders (anti-HBs 10–100IU/L) and 10 (7.9%) non-responders (anti-HBs <10). In univariate analysis, only baseline CD4 >200 cells/mm3 was associated with both response (p=0.02) and high-level response (p=0.01). In multivariate analysis baseline CD4 was associated with "high response", with each unit increase in CD4 count corresponding to a 0.004 increase in vaccine response (p=0.01, CI 0.001–0.008).

CONCLUSIONS Half of the screened patients did not have immunity to HBV-infection, suggesting a large "at risk" population for the infection among HIV-positive adults in Uganda. The vaccine was effective in eliciting a protective humoral immunologic response, particularly among those with higher CD4 counts. Our findings support routine HBV vaccination among HIV-positive adults at risk for HBV infection in a bid to prevent HCC.

Shah M

A NON-PROFIT ORGANISATION PARTNERING WITH INSTITUTIONS IN AFRICA TO ADVANCE RADIATION THERAPY-RELATED CANCER CARE: SUCCESSES AND CHALLENGES

Shah M[1], Einck J[2], Ladd T[5], Fisher B[3], Daugherty L[4], Shulman A[5]
[1]Henry Ford Cancer Institute, [2]University of California, [3]Gamma West Cancer Services, [4]Alaska Cancer Treatment Center, [5]Radiating Hope

MEETING ROOM 4

Friday
8 November 2019
12:45–13:45

OBJECTIVE Radiation therapy (RT) is critical to cancer care, providing benefits of overall survival, local control and palliation, cost-effectively; however, over 15 African nations remain without RT. Radiating Hope (RH) is a nonprofit organisation committed to advancing RT-related cancer care globally.

METHODS In Dakar, Senegal RH donated a high dose rate brachytherapy unit (HDRBU) to the Institut Jolio Curie (2012), followed by in-person training trips with US physicians and physicists. At the Sweden Ghana Medical Center (SGMC) in Accra, an RH physicist spent 2014–2015 training medical physicists on safe RT delivery. This centre also received in-person brachytherapy (BT) training from US physicians and physicists (2018). Another centre in Ghana received 2 HDRBUs (2018). RH donated a linear accelerator (linac) and an HDRBU (2014–2015) to the Bugando Medical Center in Mwanza, Tanzania.

RESULTS Dakar, Senegal: Cervical cancer was curable in Senegal once treatment with brachytherapy (BT) started in 2013. The training was designed to treat safely, with fewer fractions and to use a library of pre-designed RT plans minimising need for complex treatment planning. This centre is self-sustaining in treatment delivery with BT, now with new HDRBUs and linacs. Source changes, limited physician and room availability, and equipment downtime can be significant and impede treatment delivery. Accra, Ghana: Physicists at SGMC have trained others within Ghana, Nigeria and Senegal. The SGMC team benefitted from training and is using BT with continued remote assistance. The other site in Ghana that received HDRBUs is lost to communication. Mwanza, Tanzania: The donated linac and HDRBU remain in shipping crates due to assembly cost, obtaining maintenance contracts and governmental challenges in meeting these needs.

CONCLUSIONS RH has successfully worked with institutions in Africa providing RT equipment, training and building partnerships to form self-sustainable models of training and care. Challenges remain in making RT equipment donations functional.

Shindiapina P

EVALUATION OF IMMUNE RECOVERY FOLLOWING AUTOLOGOUS HEMATOPOIETIC STEM CELL TRANSPLANTATION IN HIV-RELATED LYMPHOMA: RESULTS OF THE BMT CTN 0803/AMC 071 TRIAL

Shindiapina P[1], Pietzak M[1], McLaughlin E[1], Ahmed E[1], Lozanski G[1], Baiocchi R[1]

[1]Ohio State Univ., [2]Jagellonian Univ., [3]Emmes Corp., [4]City of Hope Comp. Cancer Center, [5]Center for Intl Blood & Marrow Transplant Research, [6]Emory Univ., [7]Atara Biotherapeutics, [8]Johns Hopkins Univ.

MEETING ROOM 4

**Wednesday
6 November 2019
14:40–16:30**

BACKGROUND We report on the quantitative and functional analysis of immune reconstitution in HIV+ patients treated with autologous stem cell transplant (AHCT) on BMT-CTN-0803/AMC-071 phase II study.

METHODS Immunome analysis was performed by 5 colour flow cytometry. Comparisons were made between HIV+ (n=40, lymphoma, BEAM conditioning) and HIV- (n=30, myeloma, melphalan conditioning) AHCT, age-matched recipients at 56, 180, and 365 days post-AHCT and 72 healthy controls (HC). Unsupervised PCA examined differences in immune cell proportions across 18 cell subsets for 3 cohorts, and across 108 cell subsets comparing HIV+ AHCT recipients to HC. Independent unsupervised analysis with importance index (IN) identified contributions of cell populations expressing immune markers to the differences between HIV+ and control immunomes. Wilcoxon rank-sum tests compared absolute counts of cell subsets. Functional responsiveness of was evaluated by Elispot.

RESULTS PCA analysis across 18 immune marker combinations showed HIV+ and HIV- AHCT recipients clustered away from HC and from each other at Day 56 and approached HC by Day 365. PCA performed across 106 markers showed increasing similarity between HIV+ and HC over time. IN identified the following subsets as significantly impacting differences between HIV+AHCT recipients and controls, (confirmed by Wilcoxon tests): activated T cells (higher HIV+); cytotoxic memory T cells (higher HIV+); effector cytotoxic T cells (higher HIV+); naïve T helper (lower HIV+); memory T helper cells (lower HIV+). HIV+ patient T cells showed higher production of INFγ with HIV and EBV pepmixes compared to controls.

CONCLUSIONS Analysis of immune recovery showed HIV+ AHCT patients exhibit lymphocyte profiling seen with chronic HIV infection and respond robustly to antigen recall. Differences included pro-inflammatory changes with increased markers of immune-activation, cytotoxic T cell numbers, depletion of naïve and expansion of memory T cells observed in chronic, treated HIV infection.

Shinondo P

P097 | SHORT 2 DAY PAEDIATRIC SURGICAL ONCOLOGY REVIEW COURSE: ZAMBIA EXPERIENCE

Shinondo P[1], Kalota S[1], Bhakta M[2], Bhakta N[2], Abdelhafeez H[2], Bvulani B[1]
[1]University of Zambia, [2]St Jude Children's Research Hospital

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVE A two-day Paediatric Surgical Oncology course was held in Zambia supported by St. Jude Children's Research Hospital. The paediatric surgical training program in Zambia began in 2015 and is still in its infancy. The objective of this course was to increase knowledge and effect behaviour change in care of childhood cancers in a resource limited setting.

METHODS The course was held on 12/2/19 and 13/2/19, with seven paediatric surgeons, five paediatric surgical trainees, and a paediatric oncologist in attendance. Day one included open discussions of common paediatric solid tumors and talks on drivers of poor outcome among others. Day two was a practical workshop that included preoperative dynamic cross-sectional images, operative videos, and 3D printed patients' tumours. A post-course survey was conducted by handing out questionnaires to all participants.

RESULTS The course highlighted the role of multidisciplinary approach and identified causes of poor cancer outcome in LMICs and set goals and deliverables.

In terms of preoperative planning course learning strategies, summary of indications and contra-indications of upfront resection, preoperative biopsy & neo-adjuvant therapy was ranked more helpful when compared to discussion of preoperative imaging and preoperative oncology check list. The most helpful operative learning strategy was breakdown of procedures to critical steps and critical anatomy. The following changes in practice were noted by participants since the course was held:

1. Establishing multidisciplinary approach for tumours
2. Wilms tumour lymph node sampling
3. Tumour biopsy strategies

CONCLUSION There is a role for paediatric surgical oncology short courses in capacity building and standardisation of surgical care. Summary of indications and contraindications of upfront resection, preoperative biopsy & neo-adjuvant therapy; discussion of operative videos and breakdown of procedures to critical steps were perceived as more effective tools, while 3D printed models were a less effective learning tool.

Shyirambere C

P230 | USING A PATIENT CALL BACK SYSTEM TO DECREASE LOST TO FOLLOW UP AT A CANCER CENTRE IN RWANDA

Shyirambere C[1], Nguyen C[1], Anderson T[1], Habimana O[2], Haskins L[1], Shulman L[3]
[1]Partners In Health, [2]Butaro Hospital, [3]University of Pennsylvania

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE High-rates of lost to follow up is a major challenge to providing cancer care in low-resource settings. This study aimed to evaluate the impact of a call back system implemented at Rwanda's Butaro Cancer Center of Excellence (BCCOE) on patient retention among those who miss scheduled oncology clinic or chemotherapy appointments.

METHODS BCCOE uses an electronic medical record (EMR) system to manage patient schedules and track visits. Historically, patients who do not present within two days of a missed appointment are unlikely to return within six months. A call back system was implemented since December 2017 where lists of patients who missed an appointment are generated weekly by EMR and used by nurses to call patients to reschedule the appointment. Information from the call are documented in a standardised form. Data from all calls made and all oncology visits between December 2017 and April 2019 were extracted from EMR. Descriptive statistics were used to analyze these data.

RESULTS 787 calls were made to 666 oncology patients who missed an appointment. Of those with documented reasons (n=267), patients most commonly missed appointments because they were being seen or waiting to be seen at a different health facility (34.8%), too unwell to travel (15.4%), or unable to afford transport (14.2%). After the call, 300 patients who missed their appointment had it rescheduled (38.1%), 173 of which (57.7%) returned to care within two weeks of the appointment.

CONCLUSIONS A call back system can be a useful tool to understand and address challenges patients face in respecting their appointments. When patients were reached and their appointment rescheduled, most do return to care. More timely calls following missed appointments and better documentation of reasons for missing an appointment will continue to inform programmatic changes to decrease barriers to attending appointments and improve patient retention.

Shyirambere C

NEW HALL

P317 | DEVELOPMENT OF RADIOTHERAPY PRIORITISATION GUIDELINES USING FAIR DELIBERATIVE PROCESS AT BUTARO HOSPITAL IN RWANDA

Shyirambere C[1], DeBoer R[2], Bigirimana J[1], Rusangwa C[1], Shulman L[3], Triedman S[4]
[1]Partners In Health, [2]University of California, [3]University of Pennsylvania, [4]Dana Farber Cancer Institute

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Radiotherapy (RT) is an essential component of effective treatment for many cancers, yet many African countries do not have adequate RT capacity to serve their populations. In the setting of limited resources, RT may be rationed implicitly based on factors such as ability to pay, or explicitly based on agreed-upon prioritisation methods. The oncology team at Butaro Hospital in Rwanda has developed, implemented, and revised RT prioritisation guidelines with the goal of maximising clinical benefit. Here we aim to describe this process and share our guidelines with others facing limited RT resources.

METHODS In 2016 our team established preliminary RT prioritisation guidelines through expert opinion. Patients were categorised by disease, stage, age, and other relevant factors, and prioritised based on estimates of potential survival benefit from RT. After two years of practical experience using these guidelines, we sought to revise them through a three-step process. First, we performed a comprehensive literature review to compile evidence that facilitates objective comparison across cancer types. Second, we held an external consultation session with global radiation oncology experts to discuss application of this evidence to RT prioritisation. Third, the Butaro oncology team convened to finalise revisions of the guidelines using fair deliberative process, drawing upon the literature review, expert recommendations, and qualitative data indicating the beliefs of program stakeholders about non-clinical factors and values that supplement objective clinical criteria.

RESULTS After a thoughtful and consultative multiphase revision process we established new radiotherapy prioritisation guidelines which are more evidence-based and consider both clinical and non-clinical criteria, which will be summarised in our presentation.

CONCLUSIONS This process highlighted the complexities of prioritising radiotherapy patients in a country with limited resources, the importance of international collaborations, and the need for ongoing revision of guidelines using an evidence-based approach.

Sidat M

PREPARING FUTURE MEDICAL DOCTORS TO CARE FOR ONCOLOGICAL PATIENTS: THE ROLE OF MEDICAL SCHOOLS

Sidat M[1]
[1]University Eduardo Mondlane

PLENARY VENUE

**Thursday
7 November 2019
14:40–16:30**

The morbidity and mortality due to cancer is increasing in Mozambique, like in many sub-Saharan countries. Most cancer patients in Mozambique are cared, at some point in time during their cancer-related experiences, by newly graduated medical doctors working at primary health care (PHC) level where they start their clinical carriers. Consequently, it is expected that new medical graduates are capable to appropriately care for cancer patients at PHC level. However, the prevalent perception in Mozambique, as in many other countries worldwide, is that the new medical graduates have deficient competencies in oncology and palliative care. Moreover, the curricula implemented in Medical Schools are inadequate by lacking oncology-related topics and have limited time allocated for clinical practice with cancer patients. Therefore, a need to revisit the curricula of undergraduate medical education to embrace all aspects of care of patients with cancers, including: psychosocial and ethical issues, screening, diagnosis and initial management of cancer patients; follow-up of patients after chemotherapy and radiotherapy; recognition and management of oncological emergencies; palliative care among other oncology-related issues. There are also significant lack of oncology and palliative care related research, particularly in Mozambique. Medical Schools have, therefore, an important role in preparing future medical doctors with essential competencies for cancer patients care and educate populations for cancer prevention, but also to carry research to inform better clinical and public health policies and practice for improved care of patient with cancer and other illnesses. Thus, this presentation will reflect on current state of medical training and explore opportunities for improvements in preparing future medical doctors for clinical and public health practice as well as for carrying out particularly implementation research to inform better local policies and practice for oncological patient care in Mozambique.

Simba H

LB015 | SYSTEMATIC REVIEW OF GENETIC FACTORS IN THE ETIOLOGY OF ESOPHAGEAL SQUAMOUS CELL CARCINOMA IN AFRICAN POPULATIONS

Simba H[1], Kuivaniemi H[1], Lutje V[2], Tromp G[1], Sewram V[1]
[1]Stellenbosch University, [2]Cochrane Infectious Diseases Group

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Esophageal squamous cell carcinoma (ESCC), one of the most aggressive cancers, is endemic in Sub-Saharan Africa, constituting a major health burden. It has the most divergence in cancer incidence globally, with high prevalence reported in East Asia, Southern Europe, and in East and Southern Africa. Its etiology is multifactorial, with lifestyle, environmental and genetic risk factors. Very little is known about the role of genetic factors in ESCC development and progression among African populations. The study aimed to systematically assess the evidence on genetic variants associated with ESCC in African populations.

METHODS We carried out a comprehensive search of all African published studies up to April 2019, using PubMed, Embase, Scopus and African Index Medicus databases. Quality assessment and data extraction were carried out by two investigators. The strength of the associations was measured by odds ratios and 95% confidence intervals.

RESULTS Twenty-three genetic studies on ESCC in African populations were included in the systematic review. They were carried out on Black and Admixed South African populations, as well as on Malawian, Sudanese and Kenyan populations. Most studies were candidate gene studies and included DNA sequence variants in 58 different genes. Only one study carried out whole-exome sequencing of 59 ESCC patients. Sample sizes varied from 18 to 880 cases and 88 to 939 controls. Altogether over 100 variants in 37 genes were part of 17 case-control genetic association studies to identify susceptibility loci for ESCC. In these studies 25 variants in 20 genes were reported to have a statistically significant association. In addition, eight studies investigated changes in cancer tissues and identified somatic alterations in 17 genes and evidence of loss-of-heterozygosity, copy number variation and microsatellite instability. Two genes were assessed for both genetic association and somatic mutation. We determined the linkage disequilibrium (LD) measures between the SNPs reported in the same genes, using the imputed data set from the Thousand Genomes Project and identified thirteen pairs of SNPs with $r^2 > 0.45$.

CONCLUSIONS Comprehensive large-scale studies on the genetic basis of ESCC are still lacking in Africa. Sample sizes in existing studies are too small to draw definitive conclusions about ESCC etiology. Only a small number of African populations have been analysed, and replication and validation studies are missing. The genetic etiology of ESCC in Africa is, therefore, still poorly defined.

Boni SP

P147 | CERVICAL CANCER SCREENING UPTAKE AMONG WOMEN IN GENERAL POPULATION IN ABIDJAN, COTE D'IVOIRE: A CROSS-SECTIONAL STUDY

Boni SP[1,2], Comoé JC[1,3], Gnahatin F[1], Didi-Kouko J[4,5], Horo A[4,6], Adoubi I[1,3,4]
[1]Programme National de Lutte contre le Cancer, [2]Programme PAC-CI, [3]Service d'Oncologie, Centre Hospitalier Univ. de Treichville, Abidjan, [4]Univ. Félix Houphouet Boigny, [5]Centre National d'Oncologie Médicale et de Radiothérapie Alassane Ouattara, [6]Centre Hospitalier Universitaire de Yopougon

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Cervical cancer (CC) is the second most common cancer among women in Cote d'Ivoire. CC screening (CCS) program has been scaled up to all districts nationwide since 2012. This study aimed at assessing the CCS uptake among women in the general population living in Abidjan.

METHODS A cross-sectional survey was conducted from July to September 2018 in three health facilities selected through a stratified systematic random procedure. Among the 10 health districts of Abidjan, three were randomly selected, then in each district two health facilities were selected, one with a CCS unit (CCSU) and another one without CCSU. During the study period, all women aged 25 to 55 years old, visiting one the selected health facility were invited to participate. A standardised questionnaire allowing collection of Sociodemographic characteristics, knowledge on CC, personal history of CCS and barriers to CCS was administered by trained research assistants. A logistic regression procedure was used to determine factors associated with CCS uptake.

RESULTS A total of 1,158 women with a median age of 32 (IQR: [29–42]) including 648 (56%) with primary or no education level and 764 (66%) living in couple, were included. Among the participants, 786 (67.9%) had ever heard about CC, mostly women with at least secondary education level (89.0% vs 51.2%; p<0.001). Screening and HPV immunisation were known as CC prevention methods by 416 (52.9%) and 167 (21.2%) participants, respectively. The proportion of CCS uptake at least once in a lifetime, was 7.5% [95% CI: 6.0–9.0]. Women with at least the secondary education level were more likely to have ever been screened compared to less educated ones (12.2% vs 3.9%; p<0.001). In multivariable analysis, age over 35 years (OR: 3.1 [1.7–5.6], p<0.001), receiving a self-considered clear information on CC (OR: 9.1 [5.0–16.7], p<0.001) and receiving information on CC during a mass campaign (OR: 4.2 [1.8–10.1], p=0.001) were positively associated with the uptake of CCS. There is no difference between health facilities with CCSU and CCS uptake (p=0.34). The main barriers to screening were lack of knowledge on CC (83.5%), negligence (14.0%) and fear of additional costs (2.6%).

CONCLUSIONS Mass awareness campaigns need to be increased with the adjunction of tailored messages based on the level of women's education to enhance the CCS coverage.

Simonds H

P148 | GEOGRAPHIC AND SOCIO-ECONOMIC FACTORS HINDER ACCESS IN A COHORT OF CERVICAL CANCER PATIENTS IN SOUTH AFRICA

Ramesar V[2], **Simonds H**[1,2]
[1]Stellenbosch University, [2]Tygerberg Academic Hospital

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVES This study examines the socio-economic and demographic factors leading to delays in start of treatment in a cohort of patients attending with cervical cancer at our institution.

PATIENTS AND METHODS This is a retrospective study. Patients included are those referred for radical radiotherapy and underwent a PET-CT radiotherapy planning scan- between 2015 and 2018. Demographic data was collected from patient records including age, socio-economic group as defined by the hospital means test, residence (local versus distant), and HIV status. Date of biopsy and start date of radiotherapy were recorded. Statistical analysis included frequencies, Chi-squared tests and logistic regression models (SPSS).

RESULTS Comprehensive data was available from 243 individuals. Patients had a median age of 47 years. The median time from biopsy to start of RT was 65 days (iQR 50–86 days). The patients were of divergent socioeconomic groups with the majority (88.4%) being unemployed with no income, as expected in a public hospital setting, and 52.7% pf patients attended from the local area. HIV positive patients were significantly more likely to be unemployed (98.6% vs 66%; p=0.02). There was a trend to more HIV positive patients living in the metro areas (61.3% vs 49.7%; p=0.09). There was no difference in socio-economic status by location. The lower socio-economic group was less likely to start RT within 90 days (69.3% vs 85.2%; p=0.08). On multivariate analysis controlling for HIV status, socio-economic group and location, local patients were significantly more likely to start RT within 90 days (OR 2.3, p=0.05, CI 1.3–4.1).

CONCLUSION Patients local to the centre were more likely to be HIV positive and to commence radiotherapy within 90 days. Despite the Western Cape being a well-resourced province, this small study demonstrates that geographic challenges and socio-economic factors continue to impact access to care in Southern Africa.

Sitoe N

LB005 | CARCINOMA DE CÉLULAS ESCAMOSAS SCHISTOSOMA HAEMATOBIUM RELACIONADOS, REPORTE DE CASOS, ABORDAGEM TERAPÊUTICA COM PRESPECTIVA FUTURA

Sitoe N[1]
[1]Maputo Central Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

RESUMO Em sua maioria os trabalhos sobre câncer de bexiga orientam sobre o tratamento e sobrevida do tipo histopatológica urotelial descrito também como carcinoma de células transicionais que corresponde à cerca de 90–95% dos casos diagnósticados na América do Norte e na Europa[2]. A prevalência reduzida nos EUA, cerca 2–5% [2] dos casos de carcinoma de células epidermoides não permite estabelecer protocolo eficaz de tratamento e seguimento de modo a determinar a sobrevida geral, sobrevida livre de progressão e qualidade de vida dos pacientes com este diagnóstico histopatógico. Como etapa ínicial pretendemos verificar a eficácia dos tratamentos instituídos em 2015 e 2016 em situação de recursos não completos e orientar para elaboração de protocolos favoráveis e com menor toxicidade tendo como prespectiva a qualidade de vida do paciente.

MATERIELS ET MÉTODOS É um estudo descritivo retrospectivo para observar a sobrevida geral dos pacientes com diagnóstico carcinoma epidermoide schistosoma haematobium relacionado, em dependência do tratamento instituído e do esquema de quimoterapia administrado que revele maior benefício com menor toxicidade. Os pacientes são coletados da base de dados do serviço de anatomia patológica, dos registos no serviço de urologia e oncologia.

RESULTADOS De 1 janeiro de 2015 à 31 de Dezembro de 2016 foram registados no Hospital Central de Maputo cerca de 125 pacientes com descrição tumor de bexiga. Destes 05 foram exluídos por apresentar laudo anatomo-patológico com dignóstico de carcinoma de células transicionais, 01 pelo diagnóstico de adenocarcinoma do reto pós RTUB por queixa de hematúria, 107 foram excluídos por não terem o comprovativo do diagnóstico histopatológico, entre estes 47,2% tem registo de diagnóstico histológico na base de dados do serviço de anatomia-patológica porém não se encontraram nos processos e na base de registo dos laudos deste serviço os comprovativos do diganóstico. 38,4% dos pacientes não foi efectuado o exame de diagnóstico. Um total 12 [9,6%] pacientes tiveram diagnóstico histológico da anatomia patológica de carcinoma epidermoide da bexiga com presença de ovos de schistosoma haematobium. 3,2% dos pacientes foram submetidas à cistectomia e neobexiga após o diagnóstico. Somente 4 pacientes foram tratados com quimoterapia dois com quimioterapia como tratamento difinitivo e dois como tratamento adjuvante. A sobrevida geral foi de 8,3% em 3 anos. Em pacientes que receberam a quimioterapia a anemia seguiu sendo a principal complicação.

Smith-Togobo C

HIGH FREQUENCIES OF TUMOUR-INFILTRATING AND CIRCULATING VΔ1+ ΓΔ T CELLS IN ENDEMIC BURKITTS LYMPHOMA PATIENTS

Smith-Togobo C[1,2], Quintana M[2], Ofori M[1], Hviid L[1]
[1]University of Ghana, [2]University of Copenhagen

MEETING ROOM 4

**Thursday
7 November 2019
10:30–11:30**

OBJECTIVE Endemic Burkitts Lymphoma (eBL) is an aggressive B-cell cancer that is only seen in children exposed to early Epstein-Barr virus infection and living in areas with stable and intense transmission of the malaria parasite Plasmodium falciparum. There, eBL can be the most common paediatric cancer. High frequencies (>5% of all circulating T cells) of Vδ1+ γδ T cells have been reported in various infectious and neoplastic diseases, but also among healthy individuals from areas with stable transmission of P. falciparum malaria. On the above basis, we set out to test the hypothesis that the Vδ1+ T-cell subset is expanded in patients with endemic Burkitts Lymphoma (eBL).

METHODS Cell samples were obtained from tumour fine-needle aspirates and peripheral blood of Ghanaian children with eBL, and from healthy age-matched control children (peripheral blood only). The phenotypes of tumour and peripheral blood cells were determined by multi-colour flow cytometry, using the following antibody markers: CD3, CD4, CD8, CD10, CD20, CD21, CD25, CD27, CD45RA, IgG, IgM, PD-1, TCR-γδ, and TCR-Vδ1. Surface marker expression pattern analysis included conventional hierarchical analysis of cell phenotypes, as well as t-distributed stochastic neighbour embedding (t-SNE) analysis.

RESULTS Our preliminary evidence documents high frequencies of Vδ1+ γδ T cells in both cell compartments (tumours and peripheral blood). We will present the complete results of our multi-parameter analysis of samples from all recruited participants, in the first detailed report of its kind in patients with this important tropical cancer.

CONCLUSIONS The function of the Vδ1+ T-cell subset is largely unknown, but it appears to be "adaptive-like" and quite distinct from that of the "innate-like" and largely complementary Vγ9Vδ2+ γδ T-cell subset. The data presented here support our hypothesis that the still quite enigmatic Vδ1+ T-cell subset serves an adaptive auto-regulatory function in conditions characterised by massive and/or chronic B-cell activation.

Smith-Togobo C

P242 | RETROSPECTIVE ASSESSMENT OF TUMOUR CELL AND TISSUE MORPHOLOGY-BASED DIAGNOSIS OF ENDEMIC BURKITT LYMPHOMA IN RESOURCE-CONSTRAINED SETTINGS IN GHANA

Smith-Togobo C[1,2], Pedersen M[3], Jensen S[3], Duduyemi B[4], Gyasi R[5], Ofori M[1], Paintsil V[4], Renner L[5], Nørgaard P[3], Hviid L[2]

[1]University of Ghana, [2]University of Copenhagen, [3]Herlev University Hospital, [4]Komfo Anokye Teaching Hospital, [5]Korle-Bu Teaching Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Endemic Burkitts Lymphoma (eBL) is an aggressive B cell lymphoma, which is a common childhood cancer in areas with high and early Epstein-Barr virus exposure and intense transmission of Plasmodium falciparum parasites. Early and accurate diagnosis is a prerequisite for successful therapy, but it optimally involves advanced laboratory investigations. These are technologically demanding, expensive, and often difficult to implement in settings where eBL is prevalent. Diagnosis is therefore generally based on clinical assessment and morphological examination of tissue specimens from tumour biopsies or cells in fine-needle aspirates (FNAs). The purpose of the present study was to assess retrospectively the accuracy of eBL diagnosis at two tertiary hospitals in Ghana.

METHODS We studied FNAs from 29 eBL patients and 21 non-eBL lymphoma patients originally diagnosed in 2018. In addition, we examined 111 archival formalin-fixed and paraffin-embedded (FFPE) tumour biopsies from Ghanaian patients originally diagnosed as eBL (N=55) or non-eBL (N=56) between 2010 and 2017. Availability-based subsets of samples were subjected to haematoxylin-eosin or Giemsa staining, C MYC immunohistochemistry (IHC), and fluorescence in situ hybridisation (FISH) analysis of c myc abnormalities.

RESULTS Retrospective assessment of FNAs by cell morphology and FISH documented high accuracy of the original diagnoses based on clinical presentation and local laboratory examination of FNAs. Retrospective assessment of FFPE sections revealed no evidence of increased C-MYC expression (by IHC) or c-myc translocation (by FISH) in some patients originally diagnosed as eBL.

CONCLUSIONS In general, we found a good correlation between original diagnoses based on clinical presentation on cell/tissue morphology and subsequent retrospective assessment of samples, although there was some indication of eBL over-diagnosis. Poor preservation of some archival samples precluded reliable retrospective assessment, and greater care in preservation of samples for long-term storage would improve opportunities for future research. The main clinical eBL problems in Ghana remain late diagnosis and inadequate compliance.

Snell J
NATURAL LANGUAGE PROCESSING TO IMPROVE RADIOLOGY EFFICIENCY

Snell J[1]
[1]Rad AI

MEETING ROOM 4

Friday
8 November 2019
12:45–13:45

OBJECTIVE We demonstrate a natural language processing (NLP) method to enable radiologists to accurately read more studies per day across all radiology modalities independent of patient population.

METHODS In radiology reports, the impression section is in many ways a summary of the key items from the more extensive findings section. We modified a long short-term memory and pointer generator artificial neural network with state-of-the-art performance in summarising news articles into findings to impression NLP model for radiology reports. We gathered the necessary data to train the scaled up neural network through partnerships with radiology groups across the United States to collect millions of reports across all modalities and diagnoses. From this data we generated synthetic training datasets designed to follow radiology best practices and the most up-to-date published recommendations. We trained the NLP model on the synthetic data for each radiology modality, evaluated results in a double-blind fashion with a panel of radiologists, and are live beta-testing with radiology groups.

RESULTS We show that significant improvement in radiologist efficiency can be achieved with NLP. Radiologist time typically scales linearly with increasing findings lengths, but with the NLP model radiologist time scaled sub-linearly. For short reports radiologists saved on average 10%. When using the NLP model, radiologists saved on average 10% of time on short reports (radiographs) and 25% for longer reports (CTs). Across an average workday, a radiologist using the NLP model can read an additional 15 to 38 studies.

CONCLUSIONS This and methods like it could be highly scalable and cost-effective methods for reducing radiologist scarcity in resource-poor regions. As we integrate computer vision with our NLP models on increasingly large data sets we expect to see further improvements in efficiency. For the most common modalities we see these end-to-end radiology models doing the majority of the boring radiology work.

Snell J

P231 | ARTIFICIAL INTELLIGENCE IN MEDICINE AND ITS OPPORTUNITIES IN AFRICA

Snell J[1]
[1]Rad AI

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE A high level review of the role artificial intelligence (AI) is increasingly playing in medicine and how these cheap, high-performance algorithms can be applied to cancer control and care in Africa.

METHODS AI is the computer science field focused on training machines to perform tasks believed to require a not insignificant cognitive load in humans. Recently deep learning neural networks, a sub-field of AI, have begun outperforming human physicians in narrow tasks across medicine. Convolutional neural networks, previously used to recognise cats in images, can now identify dysplastic cells on pap smears, diagnose chest x-rays, grade tumours on histopathology slides, and classify melanoma as benign or malignant. Natural language processing neural networks can now provide personalised, targeted cancer therapy recommendations from the entire scientific literature and predict inpatient mortality or 30-day readmission from a fast healthcare interoperability resource (FHIR) patient chart.

RESULTS In each of these cases the AI performs at a greater sensitivity and specificity than its board-certified human clinician equivalent. The cost to train a melanoma or pap smear classifier is quickly falling to the cost to obtain a high-quality training dataset. Further, the cost of the hardware necessary to run a trained classifier is falling exponentially, many smartphones today have the necessary compute.

CONCLUSIONS The increasing capabilities of AI in healthcare combined with the exponentially decreasing hardware costs necessary to train and run it are an obvious win for regions with limited healthcare resources, particularly specialists. With adequately large and representative training datasets, proven AI architectures could be retrained for use in cancer control and care in Africa exponentially more quickly and cheaply than equivalently trained human clinicians.

Snyper N

P044 | THE ROLE OF ROUTINE AND NOVEL BIOMARKERS AND THEIR CORRELATION WITH CLINICAL OUTCOME MEASURES IN PATIENTS UNDERGOING TRANSPERINEAL TEMPLATE BIOPSY OF THE PROSTATE (TTBP)

Snyper N[1,3,4], Pike J[1], Hughes S[2,3], Shergill I[2,3]

[1]Wrexham Glyndwr University, [2]Besti Cadwaladr University Health Board, [3]North Wales Clinical Research Centre, [4]37 Military Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Prostate cancer is the most common cancer among men and its management presents an increasing demand on already strained healthcare systems in many countries. With an increasingly ageing population, recent evidence shows an increase in transperineal template biopsy of the prostate (TTBP) operations, especially as a day-case procedure. As a diagnostic procedure it must be of low risk, however post-operative complications such as infection (1.1%) and bleeding (1.4%) do occur. This may result in hospitalisation with associated patient morbidity and resource implications. The use of antibiotics to impede surgery complications are very common. However, the emergence of organisms resistant to antibiotics is significantly increasing the risk for infection following biopsy. An evaluation of the role of biomarker pathways after TTBP may provide additional knowledge to an area that has not been well established, with the aim of providing predictive markers for post-operative complications. The purpose of this study is to investigate the changes in selected biomarkers after TTBP to test the hypothesis that changes in biomarkers are associated with post-operative complications.

METHOD Wales Research Ethics Service (REC) 4 Committee has approved this study. 160 patients scheduled for TTBP at the Wrexham Maelor Hospital, UK will be recruited after informed consent. Blood and urine samples will be collected pre-operatively, and at 30 mins, 2 hrs, 4 hrs and 24 hrs postoperatively. Samples will be analysed using appropriate methods for various markers of inflammation, infection, endothelial activation, haemostatic function as well as routine hematological and biochemical parameters. Patients will be monitored for postoperative infectious & bleeding complications.

CONCLUSION Findings from this study may provide an early simple blood/urine test or a panel of blood tests to predict the risk of patients developing post-operative complications and specific changes to their management could be instituted to improve patients' outcomes. This intervention could possibly have benefits for the patients through early treatment and may also offer cost benefits to healthcare providers by reducing the cost of treatments and readmissions due to postoperative complications.

Soanes L

HOW THE NEEDS OF ADOLESENTS AND YOUNG ADULTS WITH CANCER CAN BE RECOGNISED AND MET IN HEALTHCARE SYSTEMS

Soanes L[1]
[1]University College Hospital

MEETING ROOM 4

**Thursday
7 November 2019
08:30–10:00**

Applying often accepted age range of 15–39 years, there are approximately 3 billion adolescents and young adults (AYA) living in the world today, an estimated 1 million of whom will develop cancer; many without access to diagnosis or treatment1. In countries with younger populations there is a higher cancer burden, and implications for the present and future economy as AYA form a key component of the working population and care for younger and older generations. The ability of care providers to assist AYA with cancer varies dramatically from continent to continent, regardless AYAs with cancer are often treated less comprehensively than children and older adults, nor is the evidence base, knowledge and scientific understanding of their cancer as robust; with a corresponding lack of improvement in survival rates 2. This age group includes individuals who may be particularly complicated to care for, with varying levels of maturity, and specific socio-psychological needs. In terms of health care delivery, it has become apparent that AYA patients are at best placed in neither paediatric nor adult cancer services and with consequences in terms of the quality of care and outcome. Recently the cancer community has become aware of these gaps and AYA cancer programmes are being formed in an attempt to address them and the unmet needs of this age group. These programmes navigate the obstacles of culture, physical space, and provider expertise in the attempt to achieve an improvement in outcomes. Among the most important factors for the successful establishment of these programmes are the degree of engagement of paediatric and adult clinicians, the philanthropic support of powerful charities, and the role of dedicated professionals across a range of disciplines2. This presentation discusses how these issues were addressed to develop an organisational model of care using a patient-focused multidisciplinary approach. How similar models have evolved in other countries to suit local health and social care systems and how collectively a comprehensive, multipronged effort to bridge the gaps in the care of AYA cancer patients is emerging as a new global cancer discipline.

Soares O

P166 | CANCRO DA CABEÇA E PESCOÇO NO HOSPITAL CENTRAL DE MAPUTO: A DIMENSÃO DO PROBLEMA

Soares O[1], Monteiro K[1], Macuacua J[1], Tulsidas S[1], Lara L[2]
[1]Hospital Central de Maputo, [2]Instituto Portugues de Oncologia

NEW HALL

Tuesday
5 November 2019
18:15–20:00

Os tumores malignos da cabeça e pescoço correspondem a uma ampla variedade de neoplasias que ocorrem em diferentes estruturas da cavidade oral, faringe, cavidade nasal e laringe[1]. São o sexto cancro mais comum e tem vindo a aumentar na África Sub-Sahariana, sendo problema nos cuidados de saúde. Cerca de um terço são de causa infecciosa, sendo o carcinoma de células escamosas a variante mais comum[2]. Está descrito o HPV como o principal fator de risco para o cancro da orofaringe em doentes jovens e sem história de exposição ao álcool e tabaco[3]. Em África é escassa a informação sobre epidemiologia, prática clínica e prognóstico destes cancro, no entanto existem estudos que relatam o aumento da incidência dos cancros associados ao HPV[3].

MATERIAL E MÉTODOS Foi feita uma revisão dos livros de registro de movimentos dos doentes admitidos no Serviço de Oncologia do HCM no período compreendido entre 2013 e 2018.

RESULTADOS E CONCLUSÕES A maioria dos doentes apresentam-se em estádios avançados, e muitos com algumas co-morbilidades particularmente o HIV / SIDA. Principais constrangimentos: a maioria dos doentes são tratados apenas com quimioterapia. Registam-se elevadas recorrências, progressão, opções terapêuticas limitadas, baixa sobrevivência, número insuficiente de cirurgiões de cabeça e pescoço, faltam próteses de reconstrução e protesistas treinados, inexistência de estudo do perfil biológico, indisponibilidade da vacinação contra o HPV e, falta de terapêutica-alvo. Principais desafios: apostar numa prevenção primária de qualidade, com vista a informar e alertar junto da população sobre os factores de risco dos tumores malignos da cabeça e pescoço, e prevenção secundária para identificar e corrigir o mais precocemente possível as lesões pré-malignas. Desafios: organizar um programa global que envolva a definição dos factores de risco dos cancros da cabeça e pescoço em Moçambique, educação das populações, melhorar o diagnóstico e boas práticas clínicas, aumentar o treino em cirúrgica oncológica, radioterapia e oncologia médica. Identificar apoios. Cremos que este programa poderá levar a uma melhor organização dos serviços de saúde num contexto de baixos recursos, o que levaria a uma melhoria dos resultados nos doentes com cancros da cabeça e pescoço.

Soares O

P405 | FIBROSSARCOMA DA MAMA EM MULHER JOVEM

Soares L[1], De ᴹiranda H[1], Garcia C[1], Fernandes F[2], Carilho C[2]
[1]Hospital Central da Beira, [2]Hospital Central de Maputo

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO Descrever caso raro de tumoração da mama em mulher jovem.

MÉTODOS Colheita de história clínica, mastectomia e estudo histológico

RESULTADOS Sarcomas de mama pertencem ao raro grupo heterogéneo de neoplasia maligna da mama de origem não-epitelial. Embora a caractéristica clinica de sarcoma da mama seja similar a do carcinoma da mama, a terapia e o prognóstico diferem-se em vários aspectos. Ocorre em menos de 1% de todas neoplasias malignas e <5% de todos sarcomas dos tecidos moles. Fibrossarcoma é uma variante histológica do sarcoma mamário que corresponde a 16% de todos sarcomas da mama. Outros subtipos referidos são fibrohistiocitoma (44%), lipossarcoma (24%), sarcoma das células claras, sarcoma neurogênico, leiomiossarcoma, sarcoma alveolar ds tecidos moles acometendo 4% cada. No Hospital Central da Beira nos últimos 5 anos so foi diagnosticado 1 caso de sarcoma da mama. Caso clínico: 32 anos, feminina, negra. História de tumoração indolor na mama esquerda com com 3 meses de evolução, de rápido crescimento, sem outros sintomas associados.Gesta 2 Para 2 Abortos 0 Filhos vivos 2.

- Aleitamento materno: 12 meses | Sem história familiar de Ca mama | Sem antecedentes de uso de anticonceptivos orais

OBJECTIVAMENTE Aumento do volume da mama esquerda a custa de tumoração envolvendo toda a mama, com retracção mamilar e áreas de circulação colateral. A palpação apresentava consistência dura e com áreas de flutuação.

- Axilas, fossas supra e infraclaviculares: sem gânglios palpáveis
- Rx tórax e Ecografia abdominal: sem imagens sugestivas de metástases;

Levado ao Bloco operatório onde no intra-operatorio foi feita congelamento onde revelou tecido neoplásico com característica sugestiva de neoplasia maligna mesenquimal e de seguida feita mastectomia simples e a peça enviada a serviço de Anatomia patológica. Cujo resultado-tumor fusocelular maligno de alto grau (carcinoma sarcomatóide?). Nota: Neoplasia Não Tem Padrão Clássico Dos Tumores Da Mama. Sugere-se Realização IHQ Para Melhor Caracterização da lesão. Como o Hospital Central da Beira não tinha reagentes para fazer imunohistoquimica, os blocos foram enviados ao Hospital Central de Maputo (dista-se a mais de mil Km) tendo confirmado tratar-se de fibrossarcoma da mama.

CONCLUSÃO fibrossarcoma da mama é geralmente diagnosticado por exclusão. Dermato-fibrossarcoma é uma variante rara da fibrossarcoma, podendo ocorrer 5/1.000.000 casos. Podem ocorrer em qualquer idade mas sendo mais comum entra os 40–50 anos. Não apresenta característica clínica que difere dos outros tumores mamários. Recomenda-se como tratamento a mastectomia simples e não esta comprovado o papel de quimioterapia no seu tratamento.

Soko U

P025 | PARTICIPATION IN IMPROVING CLINICAL OUTCOMES OF CANCER PATIENTS BY NON-GOVERNMENTAL ORGANISATIONS IN LOW AND MIDDLE INCOME COUNTRIES (LMICS): A CASE FOR ZAMBIA

Soko U[1], Lombe D[2]
[1]Zambian Cancer Society, [2]Oncocurae Consultancy

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE To improve clinical outcomes of cancer patients by filling in the financial gap in cancer care in Zambia.

METHODS The Zambian Cancer Society (ZCS) is a non governmental organisation dedicated to fighting cancer along the continuum of care. Until recently, ZCS had provided non clinical social support to patients by donating food, toiletries, clothing and transport money. The society also runs a patient navigation desk at the national Cancer Diseases Hospital, which provides information to patients, cancer survivors and their care givers. In 2018, ZCS in collaboration with Oncocurae Consultancy decided to participate in clinical outcomes by fundraising for service delivery costs. Strategy: The Zambian Cancer Society engaged with technocrats in the field of oncology to understand the barriers to quality care and good outcomes for cancer patients treated at the national Cancer Diseases Hospital. Solutions within realistic budget lines were then proposed. Partners such as the Rotaract Club of Lusaka, Zambia Active Ambassadors, Zambians in the UK and many more were sensitised to these needs for fundraising. Three main areas were identified: 1. Knowledge gap in implementation of more conformal radiotherapy techniques. 2. Diagnostic costs inhibitive for patients (especially paediatric oncology and breast cancer) 3. Lack of organised preventative, screening and surveillance services at the cancer hospital.

RESULTS Activity 1: Sponsorship for radiotherapist to international congress Cost: $1,000. Return: Achieved networking and mentorship relationships with the view to enhance skills and training opportunities.

Activity 2: Provision of funds to allow for timely diagnosis of disease to enable treatment. Cost: ongoing. Return: Payment for diagnostic tests and donation of contrast for imaging scans.

Activity 3: Equipment for preventative, screening and surveillance clinic bought. Cost: $2,700. Return: Impending launch of preventative, screening and surveillance clinic at Cancer Diseases Hospital.

CONCLUSION The traditional role of NGOs in low resource environments has been social support. Participation of local NGOs in fundraising for clinical and research based activities improves patient care and provides an opportunity for locally generated scientific evidence. Leveraging of relationships between NGOs and goodwill sponsors can bridge financial gaps in poorly funded health care systems.

Somdyala N

P336 | INCREASING CERVICAL CANCER INCIDENCE IN RURAL EASTERN CAPE PROVINCE OF SOUTH AFRICA DURING 1998–2012: A POPULATION-BASED STUDY

Somdyala N[1], Bradshaw D[1], Dhansay M[2], Stefan C[3]

[1]South African Medical Research Council, [2]Stellenbosch University, [3]African Organisation for Research and Training in Cancer

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Consistently increased cervical cancer incidence observed in this selected population is difficult to associate either with increased availability of the free cytology screening or other factors. The objective of this study is to investigate trends in the age-standardised and age-specific incidence rates in two distinct regions (the northern and southern areas) covered by the Eastern Cape Cancer Registry.

METHOD 1998–2012 data of all women with topography C53.0–C53.9 were extracted from the registry database. The annual cervical cancer incidence trends were calculated for the period 1998–2012, a 15-year period encompassing the initiation of the national cervical cancer free cytology screening programme in South Africa. Information on age and stage distribution assessed, proportion of cases with pathologically verified diagnoses checked. In addition, trends in coverage of the cervical cancer screening programme were assessed using the routine health service data.

RESULTS Annual age-standardised incidence rates per 100,000 population increased significantly in the northern area from 24.0 (95%CI: 21.1–27.0) in 1998–2002 to 39.0 (95%CI: 35.6–42.5) in 2008–2012 with a screening coverage rate of 15% by 2012. In contract, no increase was observed in the southern area with rates of 20.0 (95%: 18.5–21.4) in 1998–2002 and 18.8 (95%CI: 16.2–21.4) in 2008–2012, with a higher screening coverage of 41% in 2012. Percentage distribution of stage at diagnosis showed that 28.5% of cases were diagnosed at stages I and II, 35% III and IV and 36% of missing stage information, 77% were histologically verified of which only 12.3% were by cytology.

CONCLUSION The significant increase in the incidence in the northern area does not appear to be directly related to the screening programme but may portend increases associated with the widespread provision of highly active ante-retroviral therapy.

Stracca V

DIAGNOSTIC APPLICATIONS OF TELEPATHOLOGY: THE APOF EXPERIENCE IN THE HORN OF AFRICA

Acciai F[1], Botteghi M[1], Giovenali P[1], Guzzetti S[1], **Stracca V**[1]
[1]APOF Patologi oltre Frontiera

MEETING ROOM 4

**Tuesday
5 November 2019
09:00–11:00**

The Horn of Africa project has the ambitious goal to create a network of pathology laboratories in different Countries of the Horn of Africa. Since 2010, APOF has been carrying out a project at the Balbala hospital, Republic of Djibouti, to create a pathology department which at present is fully equipped, including 4 technicians and 2 pathologists. In 2015, APOF received a request from the Hargeisa Hospital in Somalia for the creation of a pathology department. Three years after the Military Hospital in Djibouti asked APOF to create a novel and fully equipped laboratory of Pathology, including telepathology service. APOF has launched a project for a network of pathology laboratories using the "Hub & Spoke" method, in which the pathologists operating at the Balbala hospital will provide diagnostic activity by telepathology for the nearby Military Hospital and Hargeisa Hospital, which have no pathologists. The Microvisioner software, a microscope and a CCD camera allows the scanning of entire slides in a manual process performed by the lab technicians after a 3-hour training. Once the virtual slide is saved on the workstation the remote pathologist can immediately access it. The transmission capacity was very low but with WaidX, an innovative solution for Telemedicine, we obtained an emission bandwidth of more than 5 Mbps, allowing a telepathology activity of good level. We presented this device at World Cancer Congress 2018, held in Malaysia, together with an oncological case discussed via a remote tumor board, bringing together medical oncologists and pathologists on different Countries. The Hub & Spoke method can optimise local resources and will be hopefully extended to other regions of the Horn of Africa. Finally, telepathology could play a pivot role in remote tumour boards, in which various specialists discuss a clinical case to propose a shared tailored diagnosis and therapy.

Strauss R

P098 | THE BOTSOGO (BOTSWANA ONCOLOGY GLOBAL OUTREACH) TUMOR BOARDS: A MODEL FOR CASE-BASED GLOBAL ONCOLOGY EDUCATION

Strauss R[1], Baedorf Kassis S[2], Efstathiou J[1], Nsingo-Bvochora M[3], Vader P[1], **Dryden-Peterson S[2]**
[1]Massachusetts General Hospital, [2]Brigham and Women's Hospital, [3]Gaborone Private Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Botswana has implemented successful programs to treat HIV, but still faces attendant challenges in higher cancer rates, including longer times to diagnosis and limited treatment resources. BOTSOGO (Botswana Oncology Global Outreach) was established in 2011 as a collaboration between Massachusetts General Hospital (MGH) and Botswana Harvard AIDS Institute to improve cancer care and education in Botswana. A centralised forum was needed for specialists to come together and review cases.

METHODS The Tumour Board model, in which a multidisciplinary team meets regularly to review cases, is widely accepted as improving cancer outcomes. Beginning in February 2012, BOTSOGO implemented a monthly Tumour Board in which MGH and two oncology centres in Botswana connect via an internet conferencing platform. A recent cancer case is presented by the treating team in Gaborone, and disease experts recruited from MGH discuss recommended treatment strategies.

RESULTS We have held 69 Tumour Boards, with attendance of 70–80 in Gaborone, 10–15 at MGH and 15–20 in Francistown. Cervical cancers and lymphomas are among the most frequent cases presented. Special sessions have discussed ethical issues in oncology; research by Gaborone-based oncologists; and vaginal stenosis resulting from radiation for cervical cancer (which led to the implementation of a program to introduce the use of dilators to treat vaginal stenosis). Beginning in 2016, BOTSOGO has offered Continuing Medical Education credits through Harvard Medical School. 92.3% of attendees reported they would "definitely" recommend attending the BOTSOGO tumour board.

CONCLUSIONS The Tumour Board continues to anchor the BOTSOGO partnership, with consistently high attendance and feedback. We seek to improve the experience by selecting topics of most relevance and interest to participants, and by recruiting new partners in Botswana to present cases. The Tumour Board is recommended for other global oncology partnerships to consider as a means to develop collaborations and provide case-based education.

Swanson M

P149 | PREDICTORS OF DELAY ALONG THE PATHWAY TO TREATMENT FOR WOMEN WITH CERVICAL CANCER IN UGANDA

Swanson M[1], Nakalembe M[2], Ueda S[1], Chen L[1], Namugga J[3], Nakisige C[4], Huchko M[5]
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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE About 8 out of 10 women with cervical cancer in Uganda present at a late stage. This study uses survival analysis to identify factors that delay steps in the pathway to treatment.

METHODS We surveyed 268 women with cervical cancer presenting for care at the two cancer referral hospitals in Kampala. Participants provided a timeline for their process of obtaining care. We divided the pathway to care into three discrete steps: the patient interval (recognition of problem to first presentation at a clinic), the diagnostic interval (first presentation to consultation with specialist for diagnosis, staging and treatment recommendations), and the treatment interval (consultation to treatment initiation). We fit Cox proportional hazards models. The dependent hazard variable was time taken to complete each step, thus greater HRs indicate faster completion of a given step. Models were adjusted for age, education, distance from referral centre, marital status and parity.

RESULTS The patient interval (median 62 days, IQR 18–212 days) and the diagnostic interval (median 78 days, IQR 33–227 days) were relatively longer than the treatment interval (median 24 days, IQR 8–44 days). Factors associated with delay during the patient interval included: perception that symptoms were "not serious" (HR 0.59, 95% CI 0.42–0.83), attributing symptoms to infection/menstrual irregularities (HR 0.43, 95% CI 0.25–0.75), experiencing vaginal bleeding (HR 0.49, 95% CI 0.30–0.81), not knowing where to go (HR 0.44, 95% CI 0.30–0.63), financial constraints (HR 0.58, 95% CI 0.40–0.84), and pursuing alternative therapies (traditional herbal remedies and/or spiritual healing, HR 0.69, 95% CI 0.48–0.98). Delay during the diagnostic interval was associated with initially presenting at a clinic other than one of the two referral centres (HR 0.44, 95% CI 0.24–0.80). Delay during the treatment interval was associated with perceived long wait for treatment (HR 0.57, 95% CI 0.37–0.88).

CONCLUSIONS This study identified key factors associated with delay in seeking care for cervical cancer. Interventions that seek to address these factors, especially modifiable factors like knowledge of cervical cancer symptoms as well as use of alternative therapies during the patient interval, may reduce delay and facilitate obtaining care earlier.

Sylvester K

P318 | COMPARISON OF THE RADIOPROTECTIVE POTENTIALS OF ALLIUM CEPA-SYNTHESISED SILVER NANOPARTICLES (AgNPs) AGAINST RADIATION-INDUCED NEPHROTOXICITY IN WISTAR RATS ADMINISTERED AgNPs PRE AND POST TOTAL BODY IRRADIATION OF GRADED DOSES

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[1]University of Nigeria Teaching Hospital, [2]University of Nigeria

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE To compare the radioprotective potential of Allium cepa-synthesised silver nanoparticles (AgNPs) against radiation-induced nephrotoxity in Wistar rats administered AgNPs pre & post total body irradiation of graded doses.

METHOD 70 Wistar rats weighing 170 ± 20g were divided equally into seven groups of: (1) control, (2) 4GY-IRR, (3) 6GY-IRR, (4) 4GY-IRR + AgNPs-PRE, (5) 6GY-IRR + AgNPs-PRE, (6) 4GY-IRR + AgNPs-POST, (7) 6GY-IRR + AgNPs-POST. All the groups received deionised water and feed ad libitum during the 28 days of experimental period. In addition, Wistar rats in groups (4) and (5) were treated daily with 1000 mg/Kg b.wt of AgNPs for 14 days before irradiation, while groups (6) and (7) were treated daily with 1000 mg/Kg b.wt of AgNPs for 14 days after irradiation. Except for the control, all the groups were exposed to total body irradiation of 4 Gy and 6 Gy respectively from a linear accelerator on day 15. All the animals were sacrificed on day 29 for biochemical assay of malondialdehyde (MDA), reduced glutathione (GSH), superoxide dismutase (SOD), catalase (CAT) and glutathione-S-transferase (GST) as well as the level of renal biomarkers; creatinine, urea and cystatin C.

RESULTS Results indicated that in groups (2) and (3), MDA concentrations were significantly high, the level of GSH and the activities of SOD, CAT and GST decreased significantly, the level of renal biomarkers; creatinine, urea, and cystatin C were significantly high compared to the control. Conversely, administration of AgNPs for 14 days before irradiation ameliorated the effect of radiation in the renal tissues of rats in groups (4) and (5). Although administration of AgNPs to groups (6) and (7) for 14 days after irradiation decreased the level of MDA and the kidney biomarkers as well as increased the content and activities of GSH, SOD, CAT, and GST, the amelioration was slightly significant compared to the control.

CONCLUSION The result is suggestive that the Allium cepa extract-synthesised silver nanoparticles (AgNPs) possess great radioprotective and antioxidative potentials hence ameliorated the radiation-induced nephrotoxicity in the Wistar rats exposed total body irradiation of varying doses. It also exhibited the potentials to be a prophylactic and partly mitigating radioprotective agent. With further studies, AgNPs can be a promising adjuvant to radiotherapy.

Szumacher E
P099 | MENTORSHIP IN MEDICINE AND OTHER HEALTHCARE PROFESSIONS

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES Mentors are role models who often guide students, trainees, and early career individuals about personal and professional development over time. However access to mentors can be challenging, including in low to middle income countries. The literature review in the last 5 years was conducted with specific focus on different approaches to mentorship, mentor-mentee roles and responsibilities and benefits, interprofessional mentorship and importance of gender and culture in mentorship.

METHODS 2013–2018 literature review was conducted in Ovid/Medline. 35/589 articles served as a source of this review.

RESULTS The literature is not restricted to North American context. One of many examples of successful mentorship programs can be mentorship and coaching interventions implemented in five African countries (Ghana, Mozambique, Rwanda, Tanzania, and Zambia) as components of health systems strengthening (HSS) strategies funded through the Doris Duke Charitable Foundation's African Health Initiative. There were improvements in quality of care and health systems. Mentorship and coaching represented an important component of HSS activities impacting positively on effective coverage, in achieving Universal Health Care. Different approaches to mentorship including the roles and the benefits for mentors and mentees, interprofessional mentorship, gender and culture will be discussed to help better understand and improve mentoring in healthcare and research. Female medical trainees and physicians and allied health providers from different ethnic groups may require modified mentoring programs that tackle ethnicity, socioeconomic factors, gender diversity and career planning in medicine and allied healthcare professions.

CONCLUSION The benefits of mentoring are not limited to the mentees, but to the mentors as well, particularly with respect to professional satisfaction and institutional recognition. Women in academia as well as ethnic minorities entering medicine and allied health professional programs face systematic local and systemic barriers to mentorship. Distance and interprofessional mentoring may contribute to substantially ameliorate these challenges in North America and Africa.

Taku N

RADIOTHERAPY IN GHANA: IMPACT OF THE IAEA TECHNICAL COOPERATION PROGRAMME

Taku N[1], Edwerd M[2], Yarney J[3], Vanderpuye V[3], Zubizaretta E[2], Hopkins K[2]
[1]The University of Texas MD Anderson Cancer Center, [2]International Atomic Energy Agency, [3]Korle Bu Teaching Hospital

MEETING ROOM 4

Friday
8 November 2019
12:45–13:45

OBJECTIVE The Technical Cooperation Programme (TCP) is the principal mechanism by which the International Atomic Energy Agency (IAEA) transfers technology and training to Member States. We aim to evaluate the impact of radiotherapy (RT)-related, TCP projects on the professional and academic capacity of Ghana.

METHODS The TCP database was searched for projects conducted in Ghana. Fellows trained as radiation oncologists (ROs), medical physicists (MPs), radiotherapy technicians (RTTs), or oncology nurses (ONs) were identified, and a search for their current employers was performed. PubMed was searched for publications by TCP fellows, and stakeholders were consulted regarding the status of the educational infrastructure.

RESULTS RT services are offered at Korle Bu Hospital (KBH), Komfo Anyoke Hospital (KAH), and Sweden Ghana Medical Centre (SGMC). The TCP has trained 35 fellows (10 ROs, 8 MPs, 9 RTTs, 8 ONs). Eight are working as ROs (2 at KBH, 3 at KAH, 2 at SGMC, 1 in South Africa). Seven MPs are employed in Ghana including 3 at KBH, 2 at KAH, 1 at the Ghana Atomic Energy Commission, and 1 as a senior lecturer at a Ghanaian university. ROs and MPs have co-authored 72 journal articles, including 17 first author publications. Both KBH and KAH now offer clinical training in radiation oncology. With the support of the IAEA, masters and PhD-level studies in medical physics are offered at the University of Ghana. A 4-year degree in therapy radiography is also available. Since 2009, Ghana has hosted 22 TCP fellows from other African countries for academic training.

CONCLUSIONS The TCP has enhanced the professional and academic RT capacity of Ghana. Nearly all TCP-trained ROs and MPs are working in Ghana, and these fellows have made significant clinical and scholarly contributions. The Ghana experience highlights the ability of the TCP to assist in the development of sustainable, RT-related, human resource infrastructure.

Tapela N

IMPROVED TIME TO TREATMENT AND CANCER STAGE WITH PROVIDER EDUCATION AND CARE NAVIGATION: RESULTS FROM THE CONTROLLED, NON-RANDOMISED PROSPECTIVE POTLAKO PILOT IN RURAL BOTSWANA

Tapela N[1,2,3], Iyer H[4], Gabegwe K[2], Rabasha B[2], Kohler R[4], Dryden-Peterson S[2,3]

[1]University of Oxford, [2]Botswana Harvard AIDS Institute Partnership, [3]Brigham and Women's Hospital, [4]Harvard TH Chan School of Public Health

MEETING ROOM 4

**Thursday
7 November 2019
13:30–14:30**

OBJECTIVES Delayed cancer treatment contributes to poor cancer survival globally, particularly in resource-limited settings. We implemented and assessed impact of the multi-level Potlako ("hurry") intervention intended to improve timely cancer treatment in Botswana.

METHODS We conducted a controlled, non-randomised pilot trial of the Potlako intervention compared with standard care. Intervention components included short-course training of primary care providers and phone-based navigation for cancer suspects. The Potlako intervention was implemented in rural Kweneng-East (35 health facilities, population 110,000) beginning in April 2016. Primary endpoints were time from first clinic visit for cancer symptom to cancer treatment, and proportion treated for limited stage cancer (IIIA or lower) for adults 18+ years. Endpoints were measured in nationwide Thabatse Cancer Cohort. We employed a difference-in-difference analytic approach utilising inverse-probability weighted Cox and log-binomial marginal structural models to compare endpoints pre- and post-Potlako in Kweneng-East and similar non-intervention districts. Models were adjusted for cancer type, sex, wealth, type of health facility visited, age, and HIV status.

RESULTS From July 2014–January 2019, 798 patients (79% female, 49% HIV+, 46% limited stage) presented with symptoms subsequently found to be cancer (39% cervix, 20% breast, 10% anogenital). 114 patients presented in Kweneng-East after April 2016 and were considered Potlako-exposed (intent-to-treat). Baseline characteristics were similar. Median time-to-treatment was 7.6 months (95%CI 5.9–9.7 months) and 10.9 months (95%CI 9.6–12.0 months) for Potlako-exposed and -unexposed, respectively. In adjusted analyses, there was improvement across assessed districts in time-to-treatment (p=0.010), but improvement appeared greater in Potlako-exposed, aHR 1.72 (95%CI 0.95–3.15). The proportion of patients treated for limited-stage cancer was greater among Potlako-exposed, aRR 2.10 (95%CI 1.07–4.11).

CONCLUSIONS A resource-conscious intervention involving provider education and telephone-based navigation support for cancer suspects was associated with meaningfully earlier treatment and reduced cancer stage. This strategy has promise to reduce cancer mortality and should be investigated further.

Taylor J

AUTOPSY FINDINGS OF INTRACRANIAL TUMOURS IN A LARGE URBAN FORENSIC POPULATION

Taylor J[1,2], Straub S[1,2], Krcedinac Marks J[1,2], Folkerth R[1,2]
[1]Office of the Chief Medical Examiner, [2]New York University School of Medicine

MEETING ROOM 3

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVES The goal of this presentation is to provide an overview of intracranial tumor types seen in a large urban forensic population and correlate these tumour types with cause of death.

BACKGROUND Central nervous system tumours may only come to attention at autopsy. Past forensic surveys, which involve high numbers of unattended deaths, very often among vulnerable or underserved populations, have noted intracranial tumours format a frequency of 0.02–2.1%. Thus, forensic autopsies, particularly in a large, diverse urban setting, can contribute to a public health surveillance function by highlighting under-appreciated trends. Here, we sought to characterise all cases with autopsy evidence of intracranial mass lesions at the office of the Chief Medical Examiner in the City of New York, during a 12-year period.

METHODS We screened cases referred for Neuropathology consultation from 2004–2014, and 2017–present for decedents with intracranial neoplasms and mass lesions such as cysts. Demographic information, diagnoses, and cause of death were recorded.

RESULTS Among 12,295 cases referred for Neuropathology evaluation, we identified 197 cases (a prevalence of 1.6%), of which 91 were women, and 106 men. The ages ranged from 2 weeks to 92 years, with 14 cases (7%) less than 20 years of age, 53 cases (26.9%) in the 20–50 age range and 130 (65.9%) greater than 50. Most were Black/African American (n=81, 41%); 23.8% were Latino/Hispanic (n=47); 28.4% were White/Caucasian (n=56); 6.5% were Asian/Pacific Islander (n=13). There were 12 main types of primary intracranial mass lesions, including meningioma (30.4%), pituitary adenoma (9%), GBM (5.5%), lymphoma (3.5%), cysts (arachnoid, pineal, epidermoid; 9.6%), colloid cyst of the third ventricle (4.5 %), central neurocytoma (9%), subependymal giant cell astrocytoma (2.5%), and lipoma (1.6%); gliomas of grades I-III comprised 2%. Metastatic (secondary) intracranial neoplasms made up 19%. The mass lesions contributed to the cause of death in 104 (52.8%) and were previously undiagnosed in 99 (50%). Complications of therapy (including surgery) contributed to death in 17(8.6%) instances.

CONCLUSIONS Our forensic cohort shows a diverse assortment of tumour types, over half of which were undetected in life. Tumours were directly related to the cause of death in a majority of cases, including an appreciable proportion with therapeutic (operative) complications. Finally, we further emphasise the value of autopsy in diagnosis and public health surveillance for oncologic disorders and their outcomes.

Vieira G

P319 | ANGIOSSARCOMA CUTÂNEO TRATADO COM RADIOTERAPIA EXTERNA A TÍTULO EXCLUSIVO COM RESPOSTA COMPLETA

Teixeira R[1], Vale Fernandes P[2], Silva L[2], **Vieira G**[1]
[1]JCS-Clínica de Radioncologia da Madeira, [2]Hospital Dr. Nélio Mendonça

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO Pretende-se apresentar um caso clínico de angiossarcoma da perna tratado apenas com Radioterapia externa com boa resposta clínica.

MÉTODOS Doente de 86 anos de idade, sexo feminino, antecedentes de cardiopatia isquémica e linfedema da perna esquerda, que recorreu à consulta de Dermatologia com múltiplas pápulas violáceas hemorrágicas, úlcera na face antero-externa e nódulo com 20x20mm na face anterior da perna esquerda com oito meses de evolução. Foi submetida a biópsia por shaving do nódulo, cuja histologia revelou um Angiossarcoma de alto grau de padrões epitelióide e fusiforme. Por apresentar doença localmente extensa, mas sem metastização à distância nos exames complementares de diagnóstico, foi referenciada à consulta de cirurgia com a proposta de amputação da perna esquerda, o que foi recusado pela doente. Foi orientada para tratamento com Radioterapia externa 3D-CRT, tendo recebido a dose de 50.4Gy/28fr/5.5s (1.8Gy/fr/dia) sobre as lesões com margem, seguido de boost à maior lesão com margem com a dose de 16Gy/8fr/1.5s (2Gy/fr/dia). Foram utilizados fotões de 6 MV e electrões de 6Mev respectivamente. O tratamento teve uma periocidade diária e decorreu de 19/06/18 a 27/08/18 com boa tolerância da doente.

RESULTADOS A Radioterapia externa induziu a regressão completa das lesões cutânas, mantendo-se a doente sem doença até ao último follow-up 5 meses após o final do tratamento.

CONCLUSÕES O angiossarcoma é uma neoplasia vascular agressiva e rara com origem nas células epiteliais, caracterizada por altas taxas de recidiva local e metastização precoce. O tratamento standard consiste em cirurgia seguida de Radioterapia pós-operatória. Contudo, a Radioterapia a título exclusivo pode ser eficiente em alguns doentes.

Vieira G

P320 | CARCINOMA BASOCELULAR LOCALMENTE AVANÇADO: TRATAMENTO COM RADIOTERAPIA EXTERNA APOS PROGRESSÃO DE DOENÇA COM VISMODEGIB

Teixeira R[1], Vieira P[2], Figueiroa M[2], **Vieira G**[1]
[1]JCS-Clínica de Radioncologia da Madeira, [2]Hospital Dr. Nélio Mendonça

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO O tratamento padrão para o carcinoma basocelular é a cirurgia, sendo a radioterapia uma opção para tratamento adjuvante ou exclusiva em tumores recorrentes, inoperáveis ou em caso de defeito pós-operatório desfigurante ou incapacitante funcionalmente. No carcinoma localmente avançado o Vismodegib apresenta respostas em cerca de 43% doentes porém existem poucos estudos a longo prazo. Pretende-se demonstrar a importância da radioterapia VMAT (volumetic arc therapy) na administração de uma dose alta, num caso clínico de carcinoma basocelular localmente avançado que progrediu sob Vismodegib.

MÉTODOS Trata-se de uma doente do sexo feminino, com 69 anos de idade, submetida em 2011 a exérese de lesão na pálpebra esquerda, cuja histologia revelou um carcinoma basocelular com margens positivas. Posteriormente foi submetida a múltiplas cirurgias por doença recorrente. Em Junho de 2016, por apresentar doença irresecável na região orbito naso etmoidal esquerda foi referenciada para tratamento com radioterapia, que a doente recusou devido ao risco de cegueira. Na consulta de oncologia iniciou tratamento com Vismodegib em outubro de 2016. Contudo, por apresentar progressão de doença, o tratamento foi suspenso em março de 2018. A doente foi então novamente orientada para consulta de radioterapia. Ilustra-se os diferentes passos inerentes ao planeamento de radioterapia, desde a imobilização, a definição dos volumes alvo a tratar (fusão RM com TAC de planeamento), a dosimetria e o controlo de qualidade.

RESULTADOS O tumor apresentou uma boa resposta ao tratamento com diminuição da lesão. A dose aos órgãos de risco foi minimizada (ex: olho direito), encontrando-se a doente livre de doença seis meses após o tratamento, porém sem visão do olho esquerdo.

CONCLUSÕES O tratamento do carcinoma basocelular localmente avançado constitui um desafio que deve ser abordado no âmbito de uma equipa multidisciplinar e em que a Radioterapia pode ser uma opção terapêutica.

Vieira G

P321 | QUIMIORADIOTERAPIA CONCOMITANTE INTENSIVA VERSUS QUIMIOTERAPIA DE INDUÇÃO SEGUIDA DE QUIMIORADIOTERAPIA EM DOENTES COM CARCINOMA DA OROFARINGE LOCALMENTE AVANÇADO

Teixeira R[1], Cavaleiro A[1], Vieira P[2], André T[2], Castro A[2], **Vieira G**[1]
[1]JCS-Clínica de Radioncologia da Madeira, [2]Hospital Dr. Nélio Mendonça

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO Pretende-se comparar os resultados do tratamento de doentes portadores de carcinoma localmente avançado da orofaringe tratados com Quimioradioterapia concomitante (QRT) intensiva versus Quimioterapia de indução (QI) seguida de QRT retrospectivamente.

MÉTODOS Os doentes portadores de carcinoma da orofaringe localmente avançado, estadio III e IV sem doença à distância, foram avaliados em consulta multidisciplinar de cabeça e pescoço de Fevereiro de 2009 a Fevereiro de 2019 e propostos para Quimioradioterapia concomitante (QRT) intensiva ou para Quimioterapia de indução (QI) seguida de QRT em casos de doentes com grandes volumes tumorais rapidamente progressivos e sintomáticos. A QI consistiu em TPF (Taxotere, Cisplatina e 5-FU), PF (Cisplatina, 5-FU) e TP (Cisplatina Taxotere). A Quimioterapia concomitante com a Radioterapia na maioria dos doentes foi a cisplatina administrada nos dias 1, 22 e 43. Os tratamentos foram realizados com Radioterapia Conformacional 3D até Novembro de 2017 e posteriormente com a técnica VMAT (Radioterapia em arco volumétrico). Os eventos adversos foram avaliados de acordo com Common Terminology Criteria for Adverse Events (CTCAE v.5.0) e as sobrevivências foram estimadas pelo método de Kaplan-Meier.

RESULTADOS Foram tratados 93 doentes, 55 (59,1%) com QRT e 38 (40,9%) com QI seguida de QRT e o follow-up médio foi de 28,4 meses. Aos 5 anos a sobrevivência global (SG) para QRT versus QI seguida de QRT foi de 41,2% vs 15,7% respectivamente (p=0,004). O controlo local (CL) aos 5 anos é de 55% no grupo que fez QRT e 30% nos doentes que realizaram indução (p=0.008). A toxicidade foi semelhante em ambos os grupos com 63,4% do total dos doentes a completarem a QRT sem interrupções (p=0,04)

CONCLUSÕES Os dados sugerem que a QRT apresenta SG, CL, sobrevivência livre de doença superior à QI e que esta não melhora o controlo à distância.

Nsabimana T

P265 | PAIN MANAGEMENT BY DOCTORS AND NURSES AT ONE DISTRICT HOSPITAL WITH PALLIATIVE CARE UNITY IN RWANDA

Nsabimana T[1]
[1]Kibagabaga Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

BACKGROUND Pain management is a critical component of comprehensive care for patients with cancer and prior studies have shown that doctors and nurses are key mediators of effective pain management. Though palliative care is growing in Rwanda there have been no prior studies measuring the knowledge attitudes and practice of managing pain among doctors and nurses at District hospital. Such information is essential to design relevant and effective intervention to address this important component of palliative care in Rwanda.

OBJECTIVE The primary aim was to establish baseline data on the knowledge, attitudes and practice of pain management in patients with cancer among doctors and nurses at district hospital. The secondary aim was to investigate the specific barriers to effective pain management in order to make future recommendations that will target these barriers and help to improve the care of patients with cancer throughout Rwanda.

METHODS A cross sectional, descriptive study, aimed at evaluating the knowledge, attitudes and practice of pain management among doctors and nurses at Kibagabaga hospital was conducted. A modified version of the validated Knowledge Attitude Survey regarding Pain tool and demographic questionnaire was used as the primary outcome measure.

RESULTS A total of 28 doctors and 107 nurses were included in the study. The results revealed a widespread knowledge deficit and poor attitude focused in the area of pain assessment and pharmacological management of pain. Even though 92.0% of doctors and 88 % of nurses in our study strongly believed that pain relief is an essential part of care for patients with advanced disease, a large number of respondents incorrectly answered questions regarding the specific management of pain. This included 43% of respondents stating that vital signs are the best indicator of the presence of pain, and 63.7% of respondents failing to recognise that aspirin and other nonsteroid anti-inflammatory drugs are effective treatment for bone pain. Knowledge deficits were also present for the use of morphine, as 60.8% of respondents did not know the time to peak effect of morphine, 54.2% did not know the usual duration of analgesia of IV morphine, and 35.5% did not know how to correctly convert IV morphine to PO morphine.

CONCLUSION There was a widespread knowledge deficit and poor attitude of doctors and nurses regarding pain management at one district hospital with palliative care unity in Rwanda. Further education and quality improvement initiatives are needed to improve the pain management in Rwanda.

Theyra-Enias H

P392 | SOCIODEMOGRAPHIC AND CLINICOPATHOLOGIC PATTERN OF PATIENTS WITH COLORECTAL CANCER SEEN IN AHMADU BELLO UNIVERSITY TEACHING HOSPITAL, ZARIA

Theyra-Enias H[1], Adewuyi S[2], Alabi A[3], Jimeta D[4], Zubairu I[2]

[1]Barau Dikko Teaching Hospital / Kaduna State University, Kaduna State., [2]Ahmadu Bello University Teaching Hospital, [3]Lagos University Teaching Hospital, [4]Federal Medical Centre

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Colorectal cancer is a major source of morbidity and mortality in the world. It accounts for 10.2% of cancer incidence globally with a mortality of 9.2%. It ranks third in incidence but second in terms of mortality. Colorectal cancer is not uniformly common throughout the world. Its incidence is increasing in developing countries. The aim of this study was to determine the pattern of patients with colorectal cancer seen in the department of Surgery, Radiotherapy and Oncology Centre, Ahmadu Bello University Teaching Hospital (ABUTH), Zaria over a ten-year period.

METHODOLOGY In this retrospective study, data was collected from the case files and treatment cards of one hundred and twenty-two (122) patients with colorectal cancer managed at the Surgical, Radiotherapy and Oncology department of ABUTH Zaria, from January 2006 to December 2015. Data items analyzed included Age, Sex, Residential area, Occupation, Duration of symptoms, presenting complaints, Subsite, Histological type, Grade, Stage. All analyses were performed using SPSS version 20.

RESULTS An annual incidence of 12.2 cases/annum was seen. Seventy (57.4%) were males, and fifty-two (42.6%) females. Male: female ratio 1.3:1. Age range was between 12 years–78 years, majority were between 31–40 years (24.6%), with a mean age of 42.2 years, median age of 41 years. It was found to be commoner among the urban dwellers with the public/civil servants being the most affected (36.0%). The duration of presenting complaints ranged from 3 weeks to 10 years, most patients presenting at 7–10 months with more than one symptom. Bleeding per rectum was the commonest symptom seen. Adenocarcinoma was the predominant histology seen in 73% (n=89). The rectum was the commonest subsite, while left sided lesions (20%) were commoner than right sided lesions (17%). 18% (n=22) had distant metastasis.

CONCLUSION The study showed that colorectal cancer was commoner among the younger age group with a slight male preponderance. They were mostly urban dwellers and civil/public servants. Bleeding per rectum being the commonest complaint, majority of the cases presented at an advanced stage. Early detection through public health education, screening programs, affordable and effective treatment and follow up will help reverse this trend.

Tougri G

P245 | EPIDEMIOLOGICAL PROFILE OF PAEDIATRIC CANCERS IN BURKINA FASO

Tougri G[1], Lompo O[2], Yé D[2], Bouda C[3], Liu B[4], Parkin D[4]
[1]Ministry of Health, [2]University of Ouagadougou, [3]CHU-Yalgado Ouedraogo, [4]African Cancer Registry Network

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE The epidemiological transition is reflected in developing countries such as Burkina Faso by a still high prevalence of cancers in adult population but also by the emergence of these pathologies in very young population. The prevalence of cancer in children is still high. However, there is a golden opportunity to cure these diseases if interventions in the fight against this scourge are better planned. The objective of the present research is to evaluate the epidemiological profile of cancers in the pediatric population in Burkina Faso.

METHODS Our analysis uses data from the national pediatric cancer registry of Burkina Faso. It is a cancer registry based on population. The pediatric cancer case is actively collected across the country. All the structures where the diagnosis of cancer head the child can be done have regularly visited. The data collected using a pre-established form concerned the period from 2016 to 2018. The CanReg5 software was used for data entry and analysis.

RESULTS As of March 5, 2019, 799 cases of childhood cancer have been registered. A crude rate was 30 per million in Burkina Faso. Central Region leads with 121 cases. CHU-Yalgado Ouedraogo is the place where childhood cancer is more diagnosed with 282 cases. The sex ratio was 1.2. Lymphomas accounted for 26.8%, leukemias 26.2% and nephroblastomas 14.4 %.

CONCLUSIONS Childhood cancers are common in Burkina Faso. Good planning to combat this scourge must be put in place to overcome this disease in children.

Warren E

DISSECTION OF THE KAPOSI SARCOMA TUMOUR MICROENVIRONMENT AT THE SINGLE CELL LEVEL

Warren E[1,2], Towlerton A[1], Xu Y[1], Kafeero J[3], Mooka P[3], Okoche L[3], Phipps W[1,2,3]
[1]Fred Hutchinson Cancer Research Center, [2]Uganda Cancer Institute, [3]University of Washington

MEETING ROOM 4

**Wednesday
6 November 2019
10:30–11:30**

OBJECTIVE Kaposi sarcoma (KS) is an AIDS-defining cancer and a cause of enormous cancer morbidity and mortality in Sub-Saharan Africa. KS lesions comprise a complex tumour ecosystem with heterogeneous malignant and non-malignant cellular components. Characterising the elements that comprise KS tumours and how these components interact in vivo will advance our understanding of KS tumorigenesis.

METHODS We evaluated KS tumour and normal skin samples obtained from HIV-positive and HIV-negative adults with KS enrolled in an ongoing study at the Uganda Cancer Institute – Fred Hutch Cancer Centre in Kampala, Uganda. We have developed and implemented a platform for isolating and interrogating viable single cells from KS biopsies. Cryopreserved single cell suspensions are subsequently analyzed on a BD FACSAria™ II sorter, using a panel of antibodies to identify non-malignant cells such as CD3+CD8+ T-cells and candidate KS tumour cells carrying the CD34+/VEGFR3+/LYVE-1+ surface phenotype. To date, targeted transcriptional profiling and T-cell receptor-alpha (TRA) / T-cell receptor-beta (TRB) variable region sequencing was performed on single CD8+ T-cells from KS tumour biopsies.

RESULTS Transcriptional profiling of single CD8+ T-cells using multiplex RT-PCR with primers for 24 genes relevant to lineage, function, proliferation, or exhaustion, followed by high-throughput sequencing of indexed PCR products, revealed significant heterogeneity in the expression of many genes, but uniformly low expression of several genes associated with proliferation and functional activation, including Ki-67, granzyme B, and TNF-alpha. Sequencing of TRA and TRB CDR3 regions carried in single CD8+ T cells from KS biopsies revealed several TRB sequences that our group has tentatively identified as candidate "public" KS-specific TCRs.

CONCLUSIONS Our preliminary data suggest that the transcriptional profile of CD8+ cells in KS tumours is consistent with an "exhausted" profile, which may have implications for the use of therapeutic agents for reversing T-cell exhaustion in the treatment of KS.

Towlerton A

P190 | DYNAMICS OF THE T-CELL REPERTOIRE IN HIV+ ADULTS WITH DIFFUSE LARGE B CELL LYMPHOMA IN UGANDA

Towlerton A[1], Omoding A[1,2], Coffey D[1,3], Okoche L[1,2], Namirembe C[1,2], Phipps W[1,2,3], Warren E[1,3]
[1]Fred Hutchinson Cancer Research Center, [2]Uganda Cancer Institute, [3]University of Washington

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Survival of HIV+ adults in Uganda with diffuse large B cell lymphoma (DLBCL) is poor. We hypothesise that one-year survival after diagnosis of DLBCL in HIV+ adults will be associated with superior reconstitution of the T-cell repertoire.

METHODS We performed serial high-throughput DNA sequencing of the T-cell receptor b (TRB) and T-cell receptor a (TRA) loci in peripheral blood T-lymphocytes of HIV+ adults who presented to the Uganda Cancer Institute with confirmed DLBCL. Clinical data and blood samples were prospectively collected from subjects at study entry and after 6 and 12 months of follow-up. TRB/TRA sequencing was also performed on blood T-cells of two control populations from the US: (1) 16 HIV-seronegative adults without cancer, and (2) 30 HIV+ adults without cancer. The diversity and composition of the T-cell repertoire at 0, 6, and 12 months in the HIV+ subjects with DLBCL was inferred from the TRB/TRA sequence data, compared with that in the control groups, and analyzed for potential associations with clinical outcome.

RESULTS T-cell repertoires of HIV+ adults with DLBCL were significantly less diverse than those of HIV+ and HIV-seronegative controls, and often dominated by expanded T-cell clones. "Public" TRB and TRA sequences associated with prototypic T-cell responses to HIV and herpesviruses such as CMV and EBV were frequently identified in the HIV+ DLBCL and HIV+ control cohorts, as were semi-invariant TRA sequences associated with NK/T-cell responses to mycobacterial lipids. No significant increase in repertoire diversity was observed in the minority of HIV+ DLBCL subjects who survived to the 6- or 12-month assessments.

CONCLUSIONS Survival of HIV+ adults with DLBCL in Uganda remains poor, despite ART and chemotherapy. T-cell repertoires in these subjects contain expanded populations of T-cells associated with prototypic responses to viral and mycobacterial pathogens, suggesting that concurrent infection contributes to poor clinical outcome.

Travado L
CLINICIAN-PATIENT COMMUNICATION SKILLS TRAINING IN ONCOLOGY

Travado L[1]
[1]Champalimaud Clinical Centre

MEETING ROOM 2

Tuesday
5 November 2019
11:30–13:30

Dr Parker, Dr Banerjee, and Dr Travado will describe communication skills training, both overall and in special contexts. Memorial Sloan Kettering Cancer Center has developed an evidence-based, robust program in communication skills training with a mission "to work in partnership with clinicians of all disciplines to improve communication with cancer patients and their families, and thus enhance overall adaptation to the illness." Recognising clinical challenges and developing healthcare provider-focused communication skills training to improve patient outcomes highlights the thematic similarity of many research endeavors in the Communication Skills Training and Research Lab. This presentation will include an overview of communication skills training for different oncology clinicians, followed by a focus on training clinicians caring for special populations, i.e., older adult with cancer, and pediatric patients. We will conclude with an overview of evaluation of communication skills training programs and future directions.

GROWING AND DEVELOPING PSYCHOSOCIAL ONCOLOGY PROGRAMS IN AFRICA: CHALLENGES AND OPPORTUNITIES

Travado L
COMMUNICATION SKILL AS FIRST LEVEL OF PYSCHOSOCIAL CARE

Travado L[1]
[1]Champalimaud Clinical Centre

MEETING ROOM 2

Wednesday
6 November 2019
08:30–10:00

Good communication with patients and their families contribute to improve patients' knowledge about their disease and how to better manage their life, emotions and behavior, it has the potential to reduce patients' anxiety and uncertainty, identify their unique concerns and needs, and lead to appropriate referrals for necessary care. Good communication skills enable clinicians to provide clinical information in a sensible way tailored to patients' needs and preferences, promoting patient-centred care, compliance with treatment, patient's adaptation and satisfaction with care, contributing to improve patients' outcomes. Good communication skills is considered a key component of good medical practice, and a core competence for clinical training for healthcare providers, particularly for doctors and nurses. We will discuss why are good communication skills the first level of psychosocial care for patients and families. We will also present current clinical guidelines for patient-clinician communication (e.g., ASCO), and discuss recommendations for continuous communication skills training in clinical settings.

Travado L

P266 | DISTRESS PREVALENCE, PSYCHOSOCIAL CHARACTERISTICS AND NEEDS OF METASTATIC BREAST CANCER (MBC) PATIENTS: FINDINGS FROM THE DISTRESSBRAIN STUDY

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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Cancer patients experience high levels of cancer-related distress, which may negatively impact on their clinical outcomes, such as survival and quality of life. Distress brain study, aims to examine the associations between psychosocial variables, specific brain regions, and inflammatory processes in metastatic breast cancer (mBC) patients, an understudied group. The present investigation aims to characterise this population in terms of the prevalence of distress, anxiety, depression, psychological morbidity, self-management skills, affect, social and familiar well-being, and psychosocial needs, to better understand their needs and what resources are needed.

METHODS Participants are mBC patients in the initial stage of treatment at our centre, with no CNS impairment and 0–1 ECOG. Psychosocial variables were assessed using the Distress thermometer and Problem List (DT; NCCN 2018), Hospital and Anxiety Depression Scale (HADS; Zigmond & Snaith,1983), Brief Symptom Inventory (BSI; Derogatis, 1993), the Measure of Current Status/S1 (MOCS/S1; Carver, 2005) for measuring perceived self-management skills, Positive and Negative Affect Scale (PANAS/SF; Galinha et al, 2014), and the Social and Family well-being (FACT-SWB scale; Cella et al, 1993).

RESULTS The study is ongoing and recruiting patients attending the Breast Unit of the Champalimaud Clinical Centre in Lisbon. 100 eligible patients with mBC under treatment undergoing a whole body FDG-PET study including brain data acquisition as part of their work-up and best clinical practice are being recruited and will complete this full set of psychological measures. Preliminary findings with 30 patients indicate that 56,7% of mBC patients reported moderate to high levels of distress, 26,7% depression and 34,5% anxiety. We intend to present the final results at the congress.

CONCLUSIONS mBC is a highly demanding phase in patients' lives, with an uncertain path and difficulties presenting a challenge to adjustment. Preliminary findings suggest high psychosocial needs in these patients and justify providing psychosocial care and interventions to reduce their emotional burden and improve their coping resources.

Tumba N

P323 | RADIOTHERAPY WAITING TIME IN NORTHERN NIGERIA: EXPERIENCE FROM A RESOURCE-LIMITED SETTING

Tumba N[1], Adewuyi S[1], Eguzo K[2], Adenipekun A[3], Oyesegun R[4]
[1]Ahmadu Bello University Teaching Hospital, [2]University of Saskatchewan, [3]University College Hospital, [4]National Hospital

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE Access to radiotherapy facilities is limited in Nigeria. This leads to delays in treatment with long waiting time. This innovative study describes the trend of radiotherapy waiting time at a publicly funded tertiary radiotherapy facility in Northern Nigeria.

METHODS This was a retrospective cohort study of patients who were managed with radiotherapy between 2010 and 2014. Data included diagnosis, travel distance to facility, and treatment provided. Wait-time was categorised into intervals (1) between diagnosis and first radiation consultation; (2) first consultation to radiotherapy treatment; (3) diagnosis to treatment and; (4) decision-to-treat to treatment. Data analysis involved descriptive statistics, T-tests and chi-square tests.

RESULTS A total of 258 cases were involved, including cervical (50%; 129/258), breast (27.5%; 71/258), nasopharynx (12.8%; 33/258), colorectal (5%; 13/258) and prostate cancers (4.7%; 12/258). The mean age was 48 ($\pm$12.9) years. Treatment with radical intent comprised 67% (178/258) of cases while 33% (80/258) had palliative treatment. The median time from diagnosis to first radiation consultation was 40 (IQR:17–157.75) days for all patients, with prostate cancer having the longest 305 days (IQR:41–393.8). Median time between the first radiation oncology consultations and first radiotherapy treatment was 130.5 (IQR:14–211.5) days; cervical cancer patients waited a median of 139 (IQR:13–195.5)] days. The median time between diagnosis and first radiotherapy for breast cancer patients was 329(IQR:207–464)] days, compared to 213(IQR:101.5–353.5)] days for all patients. Only 27.5% (49/178) of cases who needed radical treatment and 53.8% (43/80) of palliative treatments where done within the recommended duration by the International Atomic Energy Agency of $\leq$30 days or $\leq$10 days, respectively.

CONCLUSION Study shows that waiting time for radiotherapy in Nigeria was generally longer than what is recommended internationally. Waiting time varied by diagnosis and treatment intent. This reflects the need to improve access to radiotherapy in Nigeria.

Muluken G

P120 | WHY DO WOMEN REFUSE CERVICAL CANCER SCREENING IN ETHIOPIA?

Muluken G[1,2], Ruddies F[2], Brhanu T[1], Tamrat A[1], Kaufmann A[4], Adamu A[1], Kantelhardt E[2,5]

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NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

BACKGROUND Attaining high coverage for cervical cancer screening is a key to effectively combat the high burden of cervical cancer in developing countries. Social, economic, and cultural factors have been associated with participation of women in cervical cancer screening programs elsewhere. Therefore, this study aimed to identify factors associated with the participation in cervical cancer screening and reasons for refusal in Ethiopia.

METHODS A community-based randomised cluster trial was conducted at the Butajira Health and Demographic Surveillance Site (HDSS) in Ethiopia. A total of 2356 women aged 30–49 in 22 randomised clusters were invited to receive one of the two screening approaches (self-collected HPV tests or VIA). The differences between those who participated and who did not were analysed according to the socio-demographic and economic characteristics. We have inquired reasons for refusal of women who did not participate in screening in both arms.

RESULTS Out of sensitised women in both arms, 49.5% and 15.9% of women refused cervical cancer screening using VIA and HPV, respectively. In both arms, compared with women who had been screened, women who had not were living in rural area and had no formal occupation. The majority of participants, 112 (89%) and 204 (77.3%) in the HPV and VIA arm, respectively, perceived themselves to be at no risk of cervical cancer. The main reasons for refusal were being busy (72.5%), physical wellbeing (13%), and fear of misconceptions in the community (5.9%).

CONCLUSION Perceived irrelevance of screening, being busy with other tasks, and assuming no personal risk played a key role for women to withhold screening. To increase the uptake of screening at community level, a swift and convenient screening-service has to be offered to allow participation in a short time and at the doorstep. Also, behavioural changes should be aimed to resolve misconceptions related with screening.

Ueda S

P100 | ASSESSING THE IMPACT AND IMPLEMENTATION OF A FORMAL GYNECOLOGIC ONCOLOGY TRAINING PROGRAM IN UGANDA

Ueda S[1], Namugga J[2], Okoth A[3], Nakishige C[3], Ajeani J[2], Lee P[4]
[1]University of California, [2]Mulago Hospital, [3]Uganda Cancer Institute, [4]Duke University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE To assess the impact of an in-country, gynecologic oncology training program in Uganda with external, international mentors.

METHODS Surveys were distributed to medical faculty and local Ugandan physicians. In-person feedback sessions with fellows, local faculty, and external mentors as well as formal evaluations of surgical and clinical skills were conducted prior to the start of a formal fellowship program, and after 6 months and 1 year.

RESULTS Two-thirds of Ugandan physician's desire skills sessions and hands-on training with international mentors. Only 17% feel that simulation and online modules are beneficial. All physicians surveyed valued surgical skills building above all other components of training including palliative care, managing chemotherapy and radiation side effects, and cervical cancer screening. Multidisciplinary care with "expert" consultation via skype and mobile messaging apps as well as in-person feedback sessions were most valued by residents and fellows. Video diaries better captured the personal impact of training on local physician rather than surveys, which required printed forms and demonstrated limited engagement (<35%).

CONCLUSIONS Successful global clinical training requires strong community partnerships, sensitivity to cultural needs, and a commitment to reciprocity. Monitoring the quality and comprehensiveness of teaching should be done frequently and consistently. Challenges remain in how to empower and assess capacity scale up in low middle income countries (LMICs), but exposing providers to intellectually stimulating experiences and focused mentorship lead to perceived positive change.

Uldrick T

ANTI-PD1 THERAPY IN PATIENTS WITH HIV AND CANCER: SAFETY CONSIDERATIONS, UNMET CLINICAL NEEDS AND FUTURE OPPORTUNITIES IN SUB-SAHARAN AFRICA

Uldrick T[1]
[1]Fred Hutchinson Cancer Research Center, [2]University of Washington

PLENARY VENUE

**Thursday
7 November 2019
13:30–14:30**

Immune checkpoint inhibition with anti-PD1 and anti PD-L1 therapy is revolutionising cancer management. There are 6 monoclonal antibodies targeting PD-1 or PD-L1 that have been approved for 15 distinct cancers. Cancer is a leading cause of death for the 37 million people living with HIV (PLWH) worldwide. Anti-PD1 therapy is indicated for several cancers associated with HIV, including lung cancer, head and neck cancer, liver cancer, cervical cancer and Hodgkin lymphoma. There is an ongoing study evaluating pembrolizumab in Kaposi sarcoma. Recent clinical trials and observational cohort studies suggest the safety profile of immune check point inhibitors for use in people with HIV and cancer is acceptable for those with a CD4 count >100 cells/uL. Meaningful responses were noted in Kaposi sarcoma, primary effusion lymphoma, lung cancer and liver cancer in Cancer Immunotherapy Trials Network-12. CD4 counts tend to increase in HIV infected patients receiving anti-PD1 therapy and HIV remains controlled in people on concurrent ART. Oncologists using this class of agents should be knowledgeable about managing immune related adverse events. Special consideration is required for people with concurrent infections, as tuberculosis immune reconstitution syndrome and KSHV lymphoproliferation has been observed. Safety and feasibility studies of check-point inhibitors are warranted in sub-Saharan. Unique and new indications may exist for immune checkpoint inhibitors in HIV infected and HIV uninfected cancer patients in this setting.

Uwayezu M

ONCOLOGY NURSING PRACTICE AND EDUCATION FROM THE FRENCH SPEAKING COUNTRIES: FROM RWANDA'S PERSPECTIVE

Uwayezu M[1]
[1]University of Rwanda

MEETING ROOM 2

Friday
8 November 2019
10:30–12:00

INTRODUCTION Oncology care is a highly specialised subset of nursing that requires a higher level of training and education. Over hundred years ago, people affected by cancer were cared by general nurses and in developed countries such as Canada, the training of oncology nurses as a specialty was initiated in 1947. Rwanda, a developing country, initiated education of oncology nurse specialists in 2015 through the collaboration between United States of America (USA) / Human Resources for Health (HRH) faculty and Rwandan Ministry of Health In 2015.

BACKGROUND Since inception of the master program in oncology nursing for which the rational was to fight the increase of the incidence and mortality rate of cancer, the program has had two successful cohorts graduating. This program is implemented in module system with sixteen (16) modules to complete before graduation. The modules put emphasis on cancer screening and diagnosis of different cancers and their treatment, management of treatment related side effect, palliative care, end of life care and rehabilitation. The program is implemented by USA/HRH training specialists from around the Globe together with Rwandan faculty. Moreover, oncology nursing track also has highly qualified and experienced honorary lecturer. Furthermore, graduate oncology nurses are now absorbed into the health care system to improve the quality outcome in cancer care. A part this formal education, Rwanda through Partners in Health and Rwanda Biomedical Center is also offering in service training of nurses on cancer treatment, preventive measures and early identification such as Clinical Breast Examination (CBE) and on the screening of cervical cancer. Like any new academic program, some challenges to mention but as few are financial constraints faced by students because they are self-sponsored. Moreover, they also continue to serve in their respective workplaces. Lack of Scholarship opportunities for PhD studies for faculty and therefore, faculty financial capacity to conduct clinical research is still limited.

FUTURE PLANS To continue to train oncology nurses for national and international level and provide continuous professional development for general nurses, both current and old graduates.

RECOMMENDATIONS African institutions should develop their own oncology nursing education programs in order to meet demands of their population because oncology nurses play a key role in cancer management and prevention.

Uwinkindi F

P351 | LAYING A STRONG FOUNDATION FOR THE ESTABLISHMENT OF A NATIONAL CANCER REGISTRY: INITIAL FINDINGS FROM RWANDA

Uwinkindi F[1], Hagenimana M[1], Businge L[1], Eagan A[2], Ndayisaba G[1]
[1]Rwanda Biomedical Center, [2]Harvard University

NEW HALL

Thursday
7 November 2019
16:30–18:00

INTRODUCTION In 1994, Rwanda's first population-based cancer registry halted due to the Genocide Against the Tutsi. In 2010, the registry was re-initiated and retrospective data collection from 2007 going forward was conducted. Yet in 2014, when external funding phased out, the registry stopped. In July 2018, the Ministry of Health through Rwanda Biomedical Center (RBC), in collaboration with partners, started a phased-based approach to build back the National Cancer Registry as a government-owned initiative. Aiming to build a sustainable system to provide reliable cancer epidemiology data in the country. The first phase was the creation of the Kigali Population-Based Cancer Registry (KPBCR), hosted in RBC under the Cancer Control Unit.

METHODOLOGY Data collection is being done at 29 health facilities in and around Kigali. After data from facility-based oncology patient files, electronic medical records, and register books is pulled using a standard abstraction form, data is entered and analyzed using CanReg5 software version 43.

RESULTS Over the course of 9 months; retrospective data collection has thus far identified 16,313 cases from 4 main cancer sites. 8,173 (50%) have been entered into CanReg5, adding to the 5,716 cases already in the system; CanReg5 now holds 13,889 cases spanning from 2007 to 2018. According to primary disease site, the two predominant cancers are breast and cervix, with 1,874 (13.5%) and 1,757 (12.7%) respectively. Among the 5,573 total male cases, the top cancers are stomach (11.3%), prostate (10.8%), Non-Hodgkin Lymphoma (6.6%), liver (6.3%), and Kaposi sarcoma (4.4%). Among the 8,316 total female cases, the top cancers are breast (22.5%), cervix (21.1%), stomach (7.9%), ovary (3.5%), and Non-Hodgkin Lymphoma (3.1%).

CONCLUSION Preliminary results show great promise that establishing the KPBCR will provide the solid basis of data needed for evidence-based planning, monitoring, and evaluation of cancer control program. Through its phased-based implementation approach, Rwanda is laying the strong foundation to establish a sustainable National Cancer Registry.

Uyisenga J

P283 | IDENTIFICATION OF GERMLINE MUTATIONS IN YOUNG RWANDAN WOMEN WITH BREAST CANCERS

Uyisenga J[1,2], Segers K[3], Lumaka A[2], Josse C[2,3], Mutesa L[1], Bours V[2,3]
[1]University of Rwanda, [2]Université de Liège, [3]CHU Liège

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE In Sub-Saharan Africa breast cancer is commonly detected at younger age and the profile is more aggressive with a high mortality rate compared to European countries. It is suggested that African specific genetic background plays a key role in this matter. We undertook this study to understand the role of genetic factors in breast cancer development in young Rwandan women.

METHODS We performed a massive parallel sequencing on Illumina MiSeq NGS system for the screening of 26 genes associated with hereditary breast cancer from twenty-six patients under 35 years old from two University Teaching Hospitals in Kigali, Rwanda. Sanger sequencing was used to confirm pathogenic and likely pathogenic mutations.

RESULTS Four patients out of 26 presented with pathogenic mutations: three patients carried BRCA1 or BRCA2 pathogenic mutations: One had BRCA2: c.1300_1303del; p.(Lys434Glufs*25),the second carried a BRCA2:c.3720_3723del; p.(Phe1241Valfs*17) while the third presented with a BRCA1: c.4065_4068del; p.(Asn1355Lysfs*10) mutation. A fourth patient showed a missense likely pathogenic TP53: c.726C>G; p.(Cys242Trp) mutation. We have also detected either missense, intronic, 5' and 3'UTR variants of unknown significance in all study participants.

CONCLUSION Our preliminary results suggest that the frequency of inherited mutations in young Rwandan women with breast cancer is similar to the observations made in Caucasians. However, further large studies including patients and controls would be interesting to better define inheritance of breast cancer risk in Sub-Saharan Africa and to explore environmental risk factors.

Vambe D

P150 | SUCCESSFUL INTEGRATION OF LUNG CANCER AND TB PREVALENCE SURVEYS IN THE KINGDOM OF ESWATINI: LESSONS LEARNT FROM THE FIELD

Vambe D[1], Mkhontfo M[2], Dlamini X[3], Mahlalela N[2], Maseko T[2], Mabuza N[4], Haumba S[2]
[1]Eswatini National Tuberculosis Control Programme (ENTCP), [2]University Research Company, [3]Eswatini National Cancer Registry, [4]Mbabane Government Hospital

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND AND OBJECTIVE The similarities of signs and symptoms of lung cancer and Tuberculosis contribute to the high mortality caused by lung cancer as most of the patients are initially misdiagnosed. Eswatini is among the 30 high per capita burdened TB/HIV countries, with high TB related mortality whilst the burden of lung cancer is unknown. We aimed to integrate lung cancer prevalence survey (LCPS) into TB prevalence survey (TB PS) to measure the national prevalence of lung cancer among adults aged 15 years and older.

METHODOLOGY The study involved an inclusive process between the National cancer registry office and National TB control programme to integrate the lung cancer prevalence survey as a sub-objective of the Eswatini TB prevalence survey. Conducted a national cross-sectional survey based on TBPS sample size. An integrated TB/Lung cancer screening algorithm was developed. Participants that presented with symptoms and risk factors for lung cancer and abnormalities on the chest X-ray and CAD4TB suggestive of lung cancer were enrolled and evaluated for lung cancer with a CT-scan. Participants CT-scan suggestive of lung cancer were referred to an oncologist for medical care.

RESULTS A total of 3279 participants were enrolled in the LCPS with presumptive signs and symptoms of lung cancer and 195 were referred for CT scan. Lessons learnt: Effective coordination of the two programs relied mostly on adopting an inclusive process; integrated training of research assistants to understand overlaps of risk factors of both diseases; administrative, technical and logistical collaboration to aid planning and leverage resources; and government commitment on collaborative efforts.

CONCLUSIONS Future joint studies are recommended and should explore the correlations of epidemiological burdens and trends for TB and Lung cancer. Integrated screening algorithms are recommended to offer further insights into the specific risk factors of lung cancer and contribute ending TB and Lung cancer mortality.

Van Wyk A

P284 | A HISTOPATHOLOGICAL STUDY OF PENILE SQUAMOUS CELL CARCINOMA IN CAPE TOWN, SOUTH AFRICA

Van Wyk A[1,2]
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NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVE The histopathological features of penile squamous cell carcinoma (SCC) in Africa have not been studied well. The aim of this study was to describe the histopathological characteristics of penile SCC in resection specimens in a tertiary hospital in Cape Town, South Africa.

METHODS Consecutive cases of penile SCC in the period from January 2008 to August 2015 were identified using the laboratory information system. Referred cases, cases without a resection specimen (i.e. biopsy only) and cases with missing tumour blocks were excluded. The following parameters were reviewed and recorded by an anatomical pathologist: tumour site, SCC subtype, grade, precursor lesions, lichen sclerosus, perineural invasion, lymphovascular invasion and lymph node status. SCC subtyping was done according to the 4th edition of the WHO Classification of Tumours of the Urinary System and Male Genital Organs. Grading was performed according to the College of American Pathologists guidelines. The results were recorded and analysed using Microsoft Excel (Washington, USA).

RESULTS 42 cases were included. The average age was 53.4 years (median: 53.5 years; range: 29 to 75 years). 14% of the patients were infected by HIV, 60% were HIV negative and the HIV status was unknown in the remainder (26%). The HIV-infected patients were on average 16 years younger than the HIV negative patients. 45% of the cases showed an HPV-related histological subtype. Five of the 6 HIV-infected patients had an HPV-related subtype. Nine of the 10 cases that showed perineural invasion and had an inguinal lymph node dissection, had lymph node metastasis. High grade and lymphovascular invasion were also associated with inguinal lymph node metastasis.

CONCLUSIONS High-risk HPV appeared to play a role in a significant number of penile SCCs in our study population. This will need to be confirmed with tests that are more specific for HPV. HIV infection seemed to play a synergistic role with high-risk HPV in the development and progression of penile SCC but the small number of HIV-infected cases in this study limited interpretation. The importance of perineural invasion, lymphovascular invasion and high grade as predictors of inguinal lymph node metastasis was confirmed.

Velha S

P324 | AVALIAÇÃO DAS BARREIRAS DE PROTECÇÃO CONTRA RADIAÇÕES IONIZANTES NO SERVIÇO DE RADIOTERAPIA DO HOSPITAL CENTRAL DE MAPUTO

Velha S[1], Marcelino C[1], Esmail R[2,3], Langa M[4], Alves F[1]

[1]Mercurius Health, [2]Ministério da Saúde de Moçambique, [3]Laboratório de Protecção e Segurança Radiológica, [4]Neopharma Lda

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVO O objectivo deste estudo foi avaliar o correcto dimensionamento das barreiras de protecção contra radiações ionizantes do Serviço de Radioterapia do Hospital Central de Maputo (SRTHCM), onde se encontra instalado um acelerador linear de electrões, de energia fotónica máxima de 15 MV e um tomógrafo, com tensão de ampola máxima de 130 kVp.

MÉTODOS Para a avaliação das barreiras de protecção radiológica foram feitas medições instantâneas dos débitos de equivalente de dose ambiente transmitida através das barreiras de protecção, para a sala do acelerador linear e de kerma no ar, para a sala do tomógrafo. Para o acelerador linear, foram ainda realizadas medições dos débitos de equivalente de dose ambiente para a radiação de neutrões, em diferentes pontos da área adjacente à porta de acesso à sala de tratamento. Para todas as medições, tanto o acelerador como o tomógrafo, foram colocados em funcionamento nas condições de irradiação consideradas mais desfavoráveis em termos de protecção radiológica.

RESULTADOS Para a estimativa da dose efectiva a que estão expostos profissionais e membros do público numa determinada zona de trabalho, foi considerada uma carga de trabalho de 231500 MU/semana, para o acelerador e de 258750 mA.s/semana, para o tomógrafo. Apresentamos como exemplo, os resultados obtidos para a estimativa de dose efectiva anual na consola: 1,16 mSv, para o acelerador e 0,01 mSv, para o tomógrafo, sendo a restrição de dose para esta zona de 6 mSv/ano.

CONCLUSÃO Com base nos resultados obtidos neste estudo e face aos riscos de exposição às radiações ionizantes, é possível estabelecer a classificação das áreas de trabalho. Os resultados permitem concluir que o SRTHCM apresenta condições de segurança adequadas no que se refere à protecção de profissionais e membros do público contra o risco de exposição às radiações ionizantes e em conformidade com os limites de dose aplicados pelos organismos internacionais.

Stückrath K

P046 | INTRINSIC SUBTYPING AND SINGLE GENE EXPRESSION PROFILING IN ETHIOPIAN BREAST CANCER TUMORS

Stückrath K[1], Desalegn Z[2], Porsch M[1], Anberber E[2], Bauer M[1], Adebe T[2], Kantelhardt E[1], Vetter M[1]
[1]Martin-Luther-University Halle-Wittenberg, [2]Addis Ababa University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE The liability of breast cancer care is escalating across the globe and becoming a major public health topic in Ethiopia. A coordinated multimeric approach for diagnosis and treatment will enhance a better survival of the patients. The aim of this study was the description and feasibility of intrinsic subtyping including differential single gene expression using specimens from Ethiopian breast cancer patients.

MEHODS The present cross-sectional study was carried out in Ethiopia for histopathological as well as for RNA-based subtyping. In total 210 patients were recruited: 106 from a rural area, 104 in Addis Ababa, half from a private hospital and the other half from a public hospital in the capital. According to the St. Gallen recommendation; since 2011 the biomarkers estrogen receptor (ER), progesterone receptor (PR), human epidermal growth factor receptor 2 (HER2) and Ki-67 determined by immunohistochemistry (IHC) classified the specimens into five subgroups. This classification was compared to the molecular subtyping using RNA expression data derived from the nCounter platform (NanoString) and applying the PAM50 algorithm according to Parker and colleagues.

RESULTS Risk assessment by histopathological markers was higher for the patients in the rural area by similar age of diagnosis. Although differences in ER- and PR- results in the rural and urban area the combination of these receptors as hormone receptor (HR)- status led to no differences. After adding Ki-67 results to the IHC receptor status (ER, PR, HER2) more patients switched to the high-risk group. The expression profiling performed very well independently of the RNA quality with a higher rate of luminal A subtypes in the urban area (32% to 22%) and a higher rate of HER2-enriched and Basal-like tumours in the rural area (25% to 18%; 23% to 19% respectively). Overall 28% belong to the luminal A, 19% to the luminal B, 21% to the HER2-enriched, 21% to the Basal-like and 11% to the Normal subgroup.

CONCLUSIONS We describe the distribution of breast cancer subtypes in a first Ethiopian cohort using molecular RNA profiling. Similar to previous immunohistochemistry results, we found a large majority of endocrine sensitive tumours so that anti-hormone therapy should be recommended even if the HR-status is not known.

Lopes L

P151 | PERFIL DOS DOENTES ONCOLÓGICOS ADMITIDOS E TRATADOS NA CLÍNICA SAGRADA ESPERANÇA EM LUANDA, ANGOLA

Lopes L[1]
[1]Clínica Sagrada Esperança, [2]Instituto Português de Cancro

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVO A Clínica Sagrada Esperança (CSE) é uma Instituição Pública de Saúde com gestão privada. O seu Conselho de Administração, face ao aumento de doentes oncológicos no país, decidiu criar em 2012 uma Unidade de Oncologia. Para tal, foram formados quadros, construída uma Unidade de Preparação de Quimioterapia, um Hospital de dia, um Serviço de Registo Oncológico e organizada a Consulta Multidisciplinar de Oncologia. Foi dado especial atenção aos tumores Urológicos e da Mama. Foram enquadrados na unidade os especialistas de cirurgia e realizados acordos para o tratamento com radioterapia em outras instituições. Pretende-se estudar o perfil dos doentes admitidos e tratados nesta Unidade de Oncologia em Luanda.

MÉTODOS Com base nos dados do Registo Oncológico da CSE, foi avaliado o perfil dos doentes admitidos e tratados na CSE, desde Setembro de 2012 a Fevereiro de 2019, em função da idade, género, naturalidade, localização e estádio da doença.

RESULTADOS No período estudado, foram admitidos um total de 546 doentes, dos quais, 306 (56%) eram homens e 240 (44%) mulheres. A idade mediana foi de 55 anos (mínimo 2 e máximo 97 anos). A maioria dos doentes eram naturais de Luanda (45.7%). Os 10 tumores mais frequentes foram, em ordem de frequência, a Próstata, Mama, Pele e Parte Moles, Estômago, Colo Uterino, Colo-Rectal, Pulmão, Linfoma, Fígado e Cabeça e Pescoço. Oitenta e cinco doentes (15.5%) tinham neoplasias digestivas. A maioria dos tumores eram localmente avançados no momento do diagnóstico e em 93 doentes (17%) a doença era M1. O número de novos doentes tem aumentado consecutivamente nos últimos cinco anos.

CONCLUSÕES O cancro da próstata, da mama e as neoplasias malignas digestivas, são predominantes. O diagnóstico tardio antecipa custos elevados no seu tratamento e sobrevivências diminutas.

Wabuke M

LB001 | GYNAECOLOGICAL ONCOLOGY CLINICAL STAGE OF CERVICAL PATIENTS A CASE OF MOI TEACHING AND REFERRAL HOSPITAL-KENYA

Wabuke M[1], Kiptoo S[1], Orango O[2], Tonui P[2], itsura P[2], Cu-Uvin S[3], Rosen B[4]
[1]Academic Model Providing Access to Healthcare, [2]Moi University, [3]Brown University, [4]Oakland University William Beaumont

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVE Increasingly, evidence is emerging from developing countries like Kenya on the burden of Gynaecological cancers from care after histological findings. This has been shown to negatively impact cervical cancer management. Unfortunately little or no information exists on the subject in the western Kenya. This study is designed to assess the common gynae cancer, and stages reported late.

METHODS We conducted a retrospective analysis for women, who presented for care with histology results to our Gyn-Oncology clinic in Moi teaching and referral hospital. Descriptive statistics were used to summarise data.

RESULTS A total of 1066 women were staged, age range was 17–88 years, with a mean of 49.9 years (STD=12). Clinical stage of cervical patients indicates 27.67 %(285) were stage 3B, 17.28% (185) were stage 2B, compared to FIGO staging which indicates that 40% (172) were 3B and 18.84% (81) were 2B. Univariate cox regression was conducted for HIV cases (HR=2.7, p-value=0.021), education (HR=2.6, p-value=0.026), married (HR=0.63, p-value=0.237) and Health insurance cover (HR=1.67, p-value=0.198). Cervical Cancer was observed as the common type of gynecological cancer reviewed

CONCLUSIONS Cervical cancer being the most killing cancer, we recommend increase installation of radiotherapy equipment to ease treatment and reduce the late reporting of cancer in Kenya.

Walsh M

P233 | EXPLORING THE PROCESS OF DEVELOPING A WEARABLE VITAL MONITOR FOR PAEDIATRIC CANCER PATIENTS IN LOW-RESOURCE SETTINGS: AN INTERDISCIPLINARY APPROACH

Albanti I[1], **Walsh M**[2], Thue J[2], Braunstein S[2], Adnan T[2], Mooney D[2]
[1]Dana-Farber Cancer Institute, [2]Harvard John A. Paulson School of Engineering and Applied Sciences

NEW HALL

**Thursday
7 November 2019
16:30–18:00**

OBJECTIVE Of the 200,000 children diagnosed with cancer worldwide each year, 80% live in low- and middle-income countries (LMIC) of which 20% or less survive. One of the leading causes of pediatric cancer mortality is infection and sepsis. This project examines and documents the way that an interdisciplinary team in engineering, public health, and medicine collaborated to tackle developing technological solutions to this global health challenge.

METHODS Design problem-solving theory was used as the theoretical framework. A thorough literature review, brainstorming sessions with diverse users, consensus-building exercises, and interviews with multidisciplinary pediatric oncology experts (clinicians, nurses, nutritionists, psychosocial providers, administrators) were conducted. Design process balanced trade-offs throughout the project to achieve highest impact for the most striking need.

RESULTS Three phases in the process were implemented: investigate (problem exploration, identification, definition), ideate (concept selection, design specification), and create (prototyping, testing, feedback). The final solution – a wearable vital monitor that measures heart rate, respiratory rate, and body temperature – was chosen and refined through several iterations of feasibility analysis and was presented with quantifiable design specifications and preliminary data on prototype accuracy. Feedback from all team members was continuous to ensure viability and applicability, and increase buy-in.

CONCLUSIONS Collaboration within medical and engineering disciplines is essential in designing devices to address global health issues. This device holds potential to improve the quality and treatment of pediatric cancer care in LMIC by providing technologically independent and affordable vital monitoring. Next steps include refinement and piloting the device, and continuation of the partnership.

Wekesa Wamukaya J

P054 | PSYCHOSOCIAL EFFECTS AMONG PATIENTS WITH CERVICAL CANCER RECEIVING CHEMOTHERAPY

Wekesa Wamukaya J[1]
[1]Eldoret Oncology Associates Cancer Centre

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

Patients with cervical cancer experience a variety of psychosocial effects which do affect them during treatment and through their cancer journey.

OBJECTIVES

1. To describe the psychosocial affects the patients with cervical cancer undergoing chemotherapy go through
2. Describe the interview measures taken to support these patients to cope with cancer
3. Highlight the available resources to help patients have their issues alleviated

METHOD

1. Surveys and interviews were used to obtain information from the patients
2. The participants were randomly picked.
3. Consent for participation was obtained.

RESULTS

a. Infertility: those in reproductive age were concerned whether they can have children after treatment
b. Stress: this was observed in patients who travelled long distances. Those with difficulties to pay
c. Isolation: some reported to be isolated by family members and colleagues.
d. Vomiting: some feared vomiting experience with chemotherapy
e. Depression: some reported low mood and ended up unable to bear requiring psychiatric treatment
f. Shame: some could not feel free to share their problems as they felt it shameful especially their children and relatives
g. Treatment cost: some could not afford the prescribed treatment as this made them helpless and hopeless
h. Suicide: some patients contemplated suicide.
i. Death: some felt death was iminent since they believed cancer was untreatable.

INTERVENTION

1) Counselling sessions were planned and patients attended to individually or through group discussion, 2) the introduction of a national hospital insurance fund is helping with treatment cost, 3) formation of support groups, and 4) treatment waivers

CONCLUSION Although many patients have psychological issues, there are interventional options to help as mentioned above. This intervention helps cancer patients cope and move on with cancer journey strong.

Watts H

LB022 | LESSONS LEARNED FROM IMPLEMENTATION OF CERVICAL CANCER SCREENING IN HIV TREATMENT SETTINGS IN THE U.S. PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF (PEPFAR)

Watts H[1], Albertini J[1], Cazier C[2], Kuzmich H[2], Shakarishvili A[3], Prainito A[1], Birx D[1]
[1]Office of the Global AIDS Coordinator, [2]George W. Bush Institute, [3]UNAIDS

NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES In 2018, PEPFAR, the George W. Bush Institute and UNAIDS, refocused their partnership to support cervical cancer (CC) screening within HIV treatment sites to reach women most at risk of CC, women living with HIV (WLHIV). We assessed progress and barriers to rapid expansion of screening within this population.

METHODS Within the renewed partnership, eight PEPFAR country programs with HIV prevalence above 10% in women were funded to integrate screening and treatment of pre-invasive lesions within HIV treatment settings in Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia, Zambia and Zimbabwe. Biannual screening with visual inspection with acetic acid was recommended for women aged 25–49 or per national guidelines if broader age range recommended, with one-time screening for women over age 49 not previously screened. Data tracked included number and type of screening (first, rescreen or follow up), findings, and treatment. Scale up began in Q4 of FY2018 although some sites had pre-existing programs.

RESULTS During FY2018, 108,993 WLHIV were screened; including 41,432 in the eight focus countries and 67,561 from previously established programs in Tanzania and Kenya. Of these, 99,219 (91%) screened negative, 7408 (6.8%) had abnormalities less than invasive CC (ICC), and 1788 (1.6%) were referred for suspected ICC. Treatment for pre-invasive lesions included 2,216 cryotherapy, 554 Loop Electrosurgical Excision Procedure (LEEP), and 47 thermal coagulation. Treatment of pre-invasive lesions was delayed by need for partner approval and limited referral sites for women requiring LEEP or assessment for possible ICC. Barriers to more rapid scale up included lack of space in clinics, delays in funds transfer, training and equipment acquisition, and need for development of quality assurance systems,

CONCLUSIONS Integration and rapid scale up of CC screening in HIV treatment settings are possible, but more intensive follow up is needed for women with abnormalities to receive appropriate evaluation and treatment. Expansion of LEEP providers and sites continues, and enhanced tracking systems are being developed. Evaluation of alternate screening options such as HPV testing is planned.

WELCOME RECEPTION AND POSTER SESSION ONE

Wekesa C

P027 | EFFECTS OF A BREAST NAVIGATION PROGRAMME AT MOI TEACHING AND REFERRAL HOSPITAL IN WESTERN KENYA

Wekesa C[1], Obat M[1], Wekesa B[1]
[1]Moi Teaching and Referral Hospital

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

BACKGROUND Breast Cancer Screening Programmes have been deployed in few developing countries to aid curb increasing burden. However Breast cancer is being detected in late stage, attributed to barriers in health care. Patient navigation programmes have been associated with early detection and timely diagnosis. Despite the consistence positive effects of breast navigation programmes, there are no studies conducted to show its effect in LMIC's where the needs are enormous.

OBJECTIVES To evaluate the effect of patient navigation programme on patient return after an abnormal clinical breast cancer screening examination finding at Moi Teaching and referral Hospital, Kenya. Setting: Women Presenting for Breast Screening.

METHODS cross-sectional research design a before-and-after study was conducted on 76 patients before and after implementation of navigation programme. They were followed up for 1 month. Measures included proportional of patient return and time to return.

RESULTS The proportion of return of patients in the navigated and non-navigated group was 57.9% and 23.7% respectively (odds Ratio 2.85 at 95% confidence Interval, 0.34–24.30, p value=0.34). The mean time to return in the navigated group was 7.33 days and 8.33 days respectively (p=0.67).

CONCLUSION There was an increase in the proportion of patients who returned for follow-up following abnormal clinical breast examination finding after implementation of breast navigation programme. Patient navigation programmes to be considered in screening programmes due to its significant effect. However, a more robust study design such as randomised controlled trial can be used to confirm this apparent superiority.

Wekesa C

P152 | CHARACTERISTICS OF BREAST CANCER PATIENTS ATTENDING MOI TEACHING AND REFERRAL HOSPITAL IN WESTERN KENYA

Wekesa C[1,2,3]
[1]Moi University, [2]Moi Teaching and Referral Hospital, [3]Academic Model Providing Access to Healthcare

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Breast cancer is the most common cancer in women worldwide, estimated to have caused over 508,000 deaths in 2011. Although breast cancer is thought to be a disease of the developed world almost 50% of breast cancer cases and 58% of deaths occur in low and middle income countries. Problem statement-Late diagnosis of breast cancer is common in most health institutions where 70–80% of cancer cases are diagnosed in late stages limiting their management. The status of many Kenyan women influences their health seeking behaviour especially in regard to breast cancer. The study sought to find out these factors and how they can be addressed.

OBJECTIVES To determine the characteristics of breast cancer patients attending MTRH in western Kenya, to determine the demographic characteristics of breast cancer patients, to determine the level of breast cancer awareness among women diagnosed with breast cancer, and to determine the factors that influence participation in breast cancer screening.

METHODS Cross-sectional research design was employed for the study. A total of 120 breast cancer diagnosed women were interviewed through self-administered questionnaires which comprised of closed and open-ended questions. Data was analyzed by descriptive and inferential statistics and represented on tables, Bar graphs and pie charts.

RESULTS Breast cancer affected persons from all ages, young and old. A majority (89%) of breast cancer patients sought medical attention because of presence of symptoms, felt discomfort and unusual changes. A majority (30.7%) of the respondents had stayed for a considerable length of time (1 year) with the cancer before they went to the hospital with a majority (31.7%) of the breast cancer Patients being diagnosed in stage 3 which was late. The main reason for late presentation was sighted as lack of knowledge on the symptoms of breast cancer (65.3%). The Women patients with breast cancer (81.2%) were aware of breast cancer and the main source of information being Barazas, Local radio and National television.

CONCLUSION Lack of disease awareness is the reason for late presentation. Even after the symptoms presented, many of the women still did not immediately visit the health facility but waited. Despite the awareness of breast cancer the knowledge was low and did not serve to help the women seek for immediate medical care. Awareness and education on breast cancer should be expanded to especially rural and peri-urban centres and campaigns mounted to increase screening uptake to improve outcomes

Were P

P028 | SHELTER PROVISION FOR CANCER PATIENTS: A KENYAN TERTIARY INSTITUTE INITIATIVE

Were P[1,2], Mbengei P[1], Kibet H[1], Opakas J[1,2], Muyodi D[1], Chite F[1,2,3,4]
[1]Academic Model Providing Access to Healthcare, [2]Moi Teaching and Referral Hospital, [3]Moi University, [4]Indiana University

NEW HALL

**Tuesday
5 November 2019
18:15–20:00**

OBJECTIVES There are 37,000 newly diagnosed cancer cases and over 28,000 deaths yearly in Kenya, which is a Lower and Middle Income Country (LMIC). One of the main challenges faced by cancer patients is inadequate diagnostic and treatment facilities as well as shortage of specialists. In our setting, patients seeking public facilities for cancer management have the option of the two main referral hospitals in the country. They travel for long distances to access care and lack accommodation as they await treatment. AMPATH Oncology with the support of TAKEDA rented a 3 bedroom apartment to accommodate patients/guardians who await investigation and treatment as a strategy to improve on patient care.

METHODS Standard operating procedures for patient admission to the shelter were developed. A social worker was engaged for assessment of eligibility for admission. Janitors were hired to provide all housekeeping services including meal preparation.

RESULTS A total of 229 patients have been sheltered for a period of 1 year from 25th April 2018 to 16th April 2019. This comprises 67% (n=154) females and 33% (n=75) males. Adults predominant 88.2% (n=202) in comparison with pediatrics 11.8% (n=27). Breast cancer patients were the majority sheltered (43.2%), NHL (14.8%), HL (11.4%) and cervical cancer (10.9%) among the leading cancers. Patients awaiting medical results and for further medical investigation accounted for 37.1% as the major reason for admission. The longest duration stayed was 4 days and the shortest period 1 day. This has resulted in improved treatment outcomes since patients do not default their clinic appointments.

CONCLUSION Shelter provision as part of patient care can improve patient outcomes in cancer management.

Were P

P029 | ENHANCING OUTREACH ACTIVITIES USING DIGITAL PLATFORM IN A RESOURCE LIMITED SETTING: THE AMPATH ONCOLOGY EXPERIENCE

Were P[1,2], Muyodi D[1], Kibet H[1], Bore J[1], Opakas J[1,2], Asirwa F[1,2,3,4]
[1]Academic Model Providing Access to Healthcare, [2]Moi Teaching and Referral Hospital,
[3]Moi University, [4]Indiana University

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Oncology Outreach, a department that focuses on helping the public clearly understands cancer's impact on our daily lives is a key component of any cancer centre that earns the coveted "comprehensive" designation from the National Cancer Institute. The AMPATH Oncology Institute (AOI) is engaged in an extensive, ongoing effort to provide training, education and outreach to the communities it serves to increase cancer awareness.

OBJECTIVE To highlights on how use of digital platform has improved the outreach activity services by: centralisation of patient's information, security of data, easy follow-up and accountability of patients.

METHOD A Point of Care system was designed and customised for outreach activity. Breast and cervical data collection forms were integrated into the system. Key components of breast and cervical were designed to fit the outreach flow. This included Demographics collected at registration point, vitals and risk assessment collected at triage area and screening findings collected at screening exit points. The system is real time for data analytics. The system alerts for follow-up after biopsy, Pathology findings and management of patients.

RESULTS 8,088 clients were screened in the year 2018 during mass community outreach activity using digital Point of Care system. These screenings were done in 27 different sites spread across 12 counties across the Western Region in Kenya. This comprised of 26.6% (2153/8088) that were screened for breast alone, 10.3% (836/8088) screened for cervix alone and 63.0% (5099/8088) that were screened for both breast and cervix. 24 % of Males were screened for breast cancer. The mean age of clients screened was 42.4. Conclusion: Most clients were screened for both breast and cervical. Males were also involved in breast cancer screening. Key benefits of Point of Care system being real time data analytics, follow-up plan and centralisation of client's information. Other stakeholders need to come on board.

Westmoreland K

P246 | IMPROVED OUTCOMES FOR HIGH-RISK PAEDIATRIC BURKITT LYMPHOMA IN MALAWI WITH HIGH-DOSE METHOTREXATE: A PROSPECTIVE SINGLE CENTRE STUDY

Westmoreland K[1,2], Wasswa P[3,4], Mtete I[3], Butia M[3], Mpasa A[3], Wachepa S[3], Manda G[3], Wanda W[3], Huibers M[3], Mzikamanda R[3], Martin S[3], Ozuah N[3,4], Kazembe P[2,3,4], Mehta P[3,4], Kim El-Mallawany N[3,4], Alexander T[2], Thompson P[2], Allen C[3,4], Poplack D[3,4], Gopal S[1,2]
[1]UNC Project Malawi, [2]UNC Chapel Hill, [3]Global Hope, [4]Bayor College of Medicine

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES Burkitts Lymphoma (BL) is the commonest pediatric cancer in Sub-Saharan Africa (SSA), with poor outcomes compared to resource-rich settings. High-dose methotrexate (HD-MTX) is a pillar of effective BL treatment, but reports of HD-MTX based regimens in SSA show marked variability in safety and efficacy.

METHODS We prospectively enrolled children <18 years with pathologically confirmed high-risk BL diagnosed from 2013–2018 at Kamuzu Central Hospital. Before 2016, children were treated with moderate-intensity CHOP. After 2016, children were increasingly treated with high-intensity regimens incorporating HD-MTX at doses 1–3 g/m2 as institutional practice shifted. Similar to most SSA centres, real-time monitoring of MTX levels was unavailable. We examined the outcomes of high-risk BL cases, defined as stage III/IV or lactate dehydrogenase (LDH) >2x normal.

RESULTS Of 170 high-risk cases, 103 (61%) received CHOP, 56 (33%) received HD-MTX, 11 (6%) died before intensive-treatment. Median age was 9 years (IQR 6–12), 104 (61%) were male, 108 (64%) had moderate-severe malnutrition, 157 (92%) had stage III/IV, median LDH was 900 (IQR 572–1,958). Children received a median of 5 (IQR 2–7) chemotherapy cycles [CHOP 5 (IQR 2–7), HD-MTX 4 (IQR 3–6)]. In February 2019, vital status was known for all but 8 (5%) children. HD-MTX significantly improved 12-month OS (53%, CI 38–66%) compared to CHOP (34%, CI 25–44%, p=0.02). Mortality was associated with poor performance (Hazard Ratio (HR) 0.42 CI 0.2–0.7%], age >9 years (HR 1.7, CI 1.1–2.7%), and LDH >900 (HR 2.1, CI 1.3–3.1%), but not gender or malnutrition. Treatment-related mortality appeared comparable for CHOP 25/103 (24%) and HD-MTX 9/56 (16%), especially given supportive-care improvements over-time.

CONCLUSION Chemotherapy regimens incorporating HD-MTX may improve 12-month OS compared to CHOP among children with high-risk BL in Malawi. There is a continued need for controlled, multicentre trials to define best practices in SSA, including optimisation of MTX application, to improve outcomes.

Williams C

CHILDHOOD ACUTE LYMPHOBLASTIC LEUKEMIA IN NIGERIA: ROLE OF ENVIRONMENTAL FACTORS AND A COMPARISON WITH GLOBAL EXPERIENCE

Williams C[1]
[1]Hematology/Oncology Consultancy; Center for Aids Research of FHCRC/UW

MEETING ROOM 1

Tuesday
5 November 2019
11:30–13:30

Burkitts Lymphoma (BL) and childhood acute lymphoblastic leukaemia (CALL) share an inverse relationship in terms of their frequencies in African countries. The low incidence of the leukaemias in Africa is often attributed to "failure of diagnosis," a view that is supported by observation of under-diagnosis in poorer communities studied in developed countries such as Great Britain. However, evidence has been also been provided that the observation is due to the marked reduction in the incidence of the most common form of childhood leukemia subtype, the "common" acute lymphoblastic leukemia (c-ALL), in developing compared to the developed. The differences in the incidence and clinical manifestations of childhood leukemia/lymphoma between the low-income regions of the Africa and the high-income regions of the world are related to the differences in lifestyles that are prevalent in these varying parts of the world. They indicate the greater role of environmental pressures (EPs) and lifestyles (LSs) on leukemogenesis compared to that of genetic differences of ethnicity and race. Eps/LSs are, probably, related to hygienic factors (HF) and socio-economic factors (SEF), including level of education and income. Eps impact the immune system in ways that have led to natural selection and evolution over billions of years on one hand, and to global and geographical patterns of lympho-proliferative malignant disorders on the other. Given the close association between HF and SEF, there is a need to resolve their differential roles in leukemogenesis.

Williams C

HAEMATOLOGICAL MALIGNANCIES IN AFRICA: WHAT WE KNOW, WHAT WE NEED TO KNOW, AND EXPLORING PROSPECTS FOR PROGRESS

Williams C[1]

[1]Hematology/Oncology Consultancy; Center for AIDS Research of FHCRC/UW

MEETING ROOM 1

**Tuesday
5 November 2019
11:30–13:30**

Burkitts Lymphoma (BL) is the best-known haematological malignancy (HM) in Africa with its historical importance as a model disease for the role environment factors in neoplastic pathogenesis, (NP) including lifestyles of socioeconomic deprivation (LSSED). BL cell lines, which were created in Africa and make available to international research facilities, provided the opportunity for the discovery of the myc gene, the molecular aberration of which served to identify the role of oncogenes in NP, thereby facilitating the emergence of molecular biology. The exquisite chemosensitivity of BL that enables therapeutic control of BL led to the evolution of the concept of cancer curability. Less well-known is the low incidence of childhood acute lymphoblastic leukaemia (CALL) in Sub-Sahara Africa (SSA), unlike its high incidence among children in the developed countries of Europe and America (DCEA). The frequent association of childhood acute myelogenous leukemia with solid tumours (chloroma) in SSA signifies a role, as in BL, of LSSED in leukemogenesis. Unlike BL, the childhood leukemias (CLs) are less chemo-sensitive in SSA than in DCEA. There is a need to know how lifestyles influence the BL/CLs epidemiology. Similarly, the underlying cause of chemotherapeutic resistance of CALL/CLs in developing versus developed countries, including possible acquired or intrinsic genotypic factors required elucidation. Adult HM, including Hodgkin lymphoma, non-BL non-Hodgkin lymphoma, myeloproliferative disease, myelodysplastic disease and the plasma cell dyscrasia require greater attention. These needs indicate a role for active clinical trial activities, which are the raison d'etre for AORTICHORG.

Williams C

HTLV-1 INFECTION IN HEALTH AND DISEASE: RELATIVE SIGNIFICANCE IN GLOBAL COMMUNITIES

Williams C[1]

[1]Hematology/Oncology Consultancy; Center for AIDS Research of FHCRC/UW

MEETING ROOM 1

Tuesday
5 November 2019
11:30–13:30

The human T-lymphotropic virus type 1 (HTLV-1) was the first retrovirus to be associated with human diseases. It shares serological features with HTLV-2. Its epidemiology is global and complex, with the endemic regions including Japan and the less developed countries of Africa, Asia, the Caribbean region, South America and Oceania. The global burden, estimated as 5–10 million, is probably grossly conservative, as vast areas of remain unexplored. It is transmitted mainly by breast-feeding, heterosexual activities, and transfusion of infected blood products. Associated diseases include the neoplastic disease adult T-lymphoma/leukemia (ATL), and infectious complications including infective dermatitis, strongyloidiasis, tuberculosis, leprosy, and Norwegian scabies. Others are inflammatory diseases, including tropical spastic paraparesis (HAM/TSP), arthritis, uveitis and Sjogren syndrome. The diagnosis of these diseases requires specialised laboratory, manpower and technological facilities that are usually unavailable in developing countries. Sporadic cases are therefore usually diagnosed in migrant populations from endemic areas of the developing world in specialised centres in developed countries with specialised facilities. Much of what is known of these diseases come from reports of itinerant scientific and healthcare workers of developed countries with interest in global diseases. The only exceptions are in the endemic areas of Japan, Australia, and Brazil. Public health measures for control of the global burden of the virus, including safe practices of breast-feeding and blood product transfusion, are in place only in a few countries. Addressing challenges of HTLV-1 infection would involve the academia, national governments and regional international institutions of endemic areas in developing countries.

Wirtz H
P049 | TAKING CURE TO THE COUNTRY: RADIOTHERAPY ON A TRUCK

NEW HALL

Wirtz H[1], Kron T[2]
[1]Lake of Constance Radiation Oncology Center, [2]University of Melbourne

Tuesday
5 November 2019
18:15–20:00

PROBLEM Radiation therapy is a cornerstone of cancer treatment. Currently, 50% of patients require radiation therapy at some stage in their cancer trajectory. However, unlike surgery and chemotherapy, radiation therapy is typically limited to large population centres because of the size and cost of the equipment required for treatment. This limitation is particularly problematic for large countries like Australia where regional and rural patients often miss out on critical care.

SOLUTION As a technology-based discipline, radiation therapy is being advanced by rapid internal and external technological innovations many led by Australia researchers. These advances, some of which our team has pioneered, include innovative patient set-up, image guidance, telemedicine and miniaturisation of equipment. Based on this we see a trend towards fewer radiotherapy treatment sessions. To solve the access and associated patient outcome problems we will combine these advances into a novel solution, 'Radiotherapy on a Truck' where we will bring radiation therapy to regional and rural cancer patients in Australia. Our project will deliver the mobile radiation therapy system, three docking stations in three Australian States and a demonstration of feasibility through rigorous clinical trials. It will provide a comprehensive assessment of needs and a roadmap as to how a distributed radiation therapy network would work across Australia. There is currently no system bringing radiation therapy to regional and remote areas.

KEY BENEFITS

- Provide access to high quality, state of the art radiation therapy services for rural and regional Australians.
- Create a solution for radiation therapy centres that temporarily lose treatment capacity (e.g. through equipment replacement)
- Create an opportunity to generate IP from integration of technology on the truck, the design of the docking stations including solar power and the e-health solutions for regional and rural locations.
- Cement Australia's reputation as a global innovator and lead to economic return through the licensing and/or manufacture of commercial 'radiotherapy on a truck' cancer treatment units and generation of jobs in the manufacturing, R&D and services sectors.
- Develop a model of cancer care applicable to developed and developing countries!! Can be run with iT-solarpower in satellite-connection by: 2 radiotherapist, 1 medical physicist, 1 onco-nurse, 1 truckdriver

Wirtz H

P325 | ROLE OF AUTOMATISM AND PROJECT CONTROL IN MODERN RADIOTHERAPY: OPPORTUNITY FOR AFRICAN-START-UPS IN RADIATION-ONCOLOGY

Wirtz H[1]
[1]Lake of Constance Radiation Oncology Center

NEW HALL

Thursday
7 November 2019
16:30–18:00

OBJECTIVES 50–60% of cancer patients require radiotherapy as important (and cost effective) part of their treatment. The majority of people in Africa suffering from cancer has no or limited access to radiotherapy technology due to the financial deficit in their countries. State of the art radiotherapy machines (linear accelerators) need (uninterruptable) electrical power. Furthermore, the education of experienced staff for this technology is running behind the expectations. Some possible starting projects were considered. Status Quo: Several Radiotherapy-initiatives were born during the last years. Stakeholders were governments, Ministry of Health, private investors and Universities. Mostly the problem is not financing the big capital for such a site, but the running cost of uninterruptable power supply and the experienced staff-numbers. Brain-drain, when staff expectations were not met, leaving the site means a very high-risk for the health management. Even the role of supporting disciplines like surgeons in gyn, uro, lung, gastro-intestinal, Onco-nursing are under-represented with their hand-in-hand working capacities. Automatism in Radiotherapy, dropping staff numbers without increasing risk for patients? The investigations in automatism, iT and machine learning projects have been increased in the last years. Right now, all of those island-projects needs a lot of man-time for proof of concepting, setting up and testing. New RT startUps like in Afrika need mass-production of such iT-systems and (if wished) more or less supervising technology and partner-sites in foreign countries. It can be shown with an iT-platform like "hol.ger" that all relevant subsystems (biometric face-detection, Realtime-dosimetry, portal-dosimetry, central process-documentation, predictive Risk-analysis) can be integrated for the decreasing of staff numbers. 400h/year of QA-TPS-planning, 100h/year overtime Linac running, 600–800h/year staff-time can be saved. Together with cloud-based targeting of tumors, auto-planning of the plans and "hol.ger" delivery control -> the number of RadOnc and Medical Physicists can be cut in half without increasing the security-risk of the patients. Ideal for start-ups in Africa! Planning procedure and aspects for setting up sustainable, solar-autarkic RadioTherapy. It is some like easy to summarise all power consumers like Linacs, CTs, MRs, iT, cooling and try to evaluate number of panels, accu-storage (for buffering high-power without compromising the usage of the power). Dimensioning of linac´s energy-flow, adapted to patient-related workload, number of staff, air-conditioning, number of windows (hopefully sun-shielded), geographical position of the site are high valuable factors for the investment in solar-autarkic solutions. And exactly these factors are one of the "forcing up prices" for the linac-treatment costs.

Yates P

BUILDING NURSING'S CAPACITY IN CANCER CONTROL: THE IMPORTANT LEADERSHIP ROLE OF THE INTERNATIONAL SOCIETY OF NURSES IN CANCER CARE

Yates P[2]
[1]Queensland University of Technology, [2]International Society of Nurses in Cancer Care

MEETING ROOM 2

Friday
8 November 2019
10:30–12:00

Nurses are the largest component of the health workforce worldwide. They play a key role in cancer control in areas including prevention, screening, treatment, survivorship and palliative care. Many countries have cancer control plans in place, but not all. Where cancer control plans are in place, the contribution of nurses to reducing the burden of cancer needs to be optimised. The International Society of Nurses in Cancer Care (ISNCC) is the global voice for nurses working in cancer care. In partnership with national and regional cancer organisations, ISNCC's mission is to lead the global nursing community to reduce the burden of cancer and realise its vision of a world in which nurses are vital and central leaders in cancer care and control. ISNCC's work is having a major impact in improving cancer control outcomes for people across the world. For example, ISNCC projects focus on addressing disparities in access to screening services, advancing nurses' policy and practice contributions in areas such as tobacco control, and improving treatment outcomes through better knowledge about symptom control. ISNCC's inaugural Policy Leadership in Cancer Nursing program recently held in Geneva in partnership with the International Council of Nurses highlighted the potential for nurses to extend their impact across the world. This unique program provided much needed opportunities for nurses from 21 countries to build their policy leadership capabilities to ensure that their contribution to cancer control across the world is optimised.

Zuze T
P055 | BURKITTS AND PLASMABLASTIC LYMPHOMA IN MALAWI

Zuze T[1], Kaimila B[1,2], Kasonkanji E[1], Tomoka T[1], Westmoreland K[3], Painschab M[1], Gopal S[1,2,3]
[1]UNC Project Malawi, [2]University of Malawi, [3]University of North Carolina

NEW HALL

Tuesday
5 November 2019
18:15–20:00

BACKGROUND Among non-Hodgkin lymphoma (NHL) subtypes, aggressive subtypes predominate in Sub-Saharan Africa (SSA), in part reflecting high prevalence of HIV and Epstein-Barr virus (EBV). Detailed descriptions of Burkitts Lymphoma (BL) and plasmablastic lymphoma (PBL) among adults from SSA are scarce, which are unique NHL subtypes highly associated with HIV and EBV.

METHODS We prospectively identified patients >15 years of age with pathologically confirmed BL and PBL during 2013–2018 in Malawi. Diagnoses were confirmed using immunohistochemistry, telepathology, and secondary review in the United States. Standardised chemotherapy was administered according to institutional guidelines, with concurrent antiretroviral therapy for HIV+ individuals.

RESULTS Forty-seven newly diagnosed BL and PBL participants were enrolled (35 BL, 12 PBL). Median age was 32 years (range 15–71) and 21 participants (45%) were HIV+ (15 BL, 6 PBL). Thirty participants (64%) had stage III/IV disease, and 20 (43%) had performance status >1. Among HIV+ participants, median CD4 count was 139 (range 9–605) and 13 (62%) had suppressed plasma HIV on antiretroviral therapy. Fourteen of 26 tumours tested (54%) were EBV-positive (5/13 HIV+, 9/13 HIV-). Four participants (9%) died before receiving chemotherapy. First-line chemotherapy consisted of CHOP (n = 30); EPOCH (n = 8); high-dose methotrexate-based chemotherapy (n = 4); and RCHOP (n = 1). Among 40 evaluable participants, 19 (48%) achieved a complete response. Median follow-up time was 24 months (range 3–44), and 1-year overall survival was 43% (95% confidence interval 28–57%, PBL 50%, BL 40%). Twenty-two of 28 deaths (79%) were from disease progression. More intensive chemotherapy was associated with decreased mortality compared with CHOP.

CONCLUSIONS BL and PBL are relatively common in Malawi, and highly but not uniformly associated with HIV and EBV. Most deaths were from progressive disease, and more intensive therapy was associated with better outcomes. Defining optimal approaches for these aggressive lymphomas is an urgent priority in SSA.

Zuze T

P056 | MODIFIED EPOCH FOR HIGH-RISK NON-HODGKIN LYMPHOMA IN SUB-SAHARAN AFRICA

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NEW HALL

Tuesday
5 November 2019
18:15–20:00

OBJECTIVES Aggressive non-Hodgkin lymphoma (NHL) is among the most common cancers in Sub-Saharan Africa (SSA), where CHOP is standard treatment and outcomes are poor. In SSA, resource-limited health systems, high opportunistic infection burden, and frequent comorbid HIV and/or malnutrition make administering high-intensity cytotoxic chemotherapy challenging. We hypothesised that EPOCH, a lower intensity infusional regimen, with modifications as required for local administration might be safe and effective treatment for high-risk NHL.

METHODS Between 2016 and 2018, we treated 15 newly diagnosed adult patients in Malawi with Burkitts (n=6), plasmablastic (n=8), and primary effusion lymphoma (n=1) with a modified EPOCH regimen as per the United States National Cancer Institute (NCI) protocol beginning at dose level +1 (etoposide 50 mg/m2, vincristine 0.4 mg/m2, and doxorubicin 10 mg/m2 days 1–4; prednisone 60 mg/m2 days 1–5; cyclophosphamide 750 mg/m2 day 1). Treatment cycles were administered every 21 days using peripheral venous catheters over eight hours on four successive days in clinic.

RESULTS Ten patients (67%) were male and the median age was 37 years (range 16–63). Ten (67%) were HIV+, median CD4 count was 208 cells/μL (range 9–460), and eight (80%) had suppressed HIV RNA <400 copies/mL. Patients received a median of six cycles (range 2–8) and median follow-up was 13 months (range 8–29) among patients still alive. Grade 3/4 neutropenia was observed in 26% of cycles and 60% of patients. Fourteen (93%) responded to EPOCH and ten (67%) achieved a complete response. One-year overall survival (OS) was 73% (95% CI 44–89%). Three patients (20%) died from progressive lymphoma and three (20%) from treatment-related complications.

CONCLUSIONS Modified EPOCH appeared feasible and effective in a small cohort of patients with and without HIV in Malawi. Our experience suggests infusional cytotoxic approaches, with setting-appropriate modification, may be a partial solution to improve outcomes for aggressive NHL subtypes in SSA.

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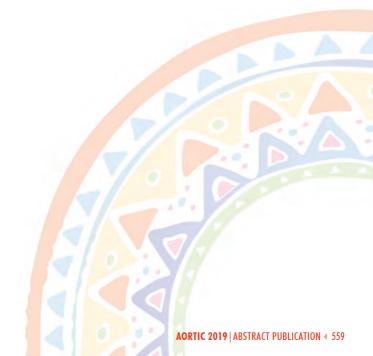| Paper number	Email
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