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BOOK OF ABSTRACTS

THE 44TH & 45TH ANNUAL
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OF THE WEST AFRICAN COLLEGE OF
PHYSICIANS (WACP)

HOSTED BY THE GAMBIA CHAPTER

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WEST AFRICAN JOURNAL OF MEDICINE



Editorial Office: Department of Medicine,
College of Health Sciences, Obafemi Awolowo University Teaching Hospital, Ile-Ife, Nigeria.
wajmeditorinechief@gmail.com; wajmeditorinchief@wajmed.org

Business Office: West African Journal of Medicine, 6, Taylor Drive, Edmund Crescent,
PMB 2023, Yaba, Lagos, Nigeria. Tel. 08068925934, 09064542292.
Email: wajmeditorinechief@gmail.com Website: www.wajmed.org

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Facebook: <https://www.facebook.com/wajmedic>
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West African Journal of Medicine
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West African Journal of Medicine Office,
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Department of Medicine,
College of Health Sciences,
Obafemi Awolowo Univ. Teaching Hospital,
Ile-Ife, Nigeria.
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General information

research in medicine and allied biomedical sciences and related areas and provide a forum for the documentation and exchange of information in the clinical and biomedical sciences.

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- (h) Correspondence (Letters)
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Professor Gregory Erhabor
Professor Gregory Erhabor
Department of Medicine,
College of Health Sciences,
Obafemi Awolowo Univ. Teaching
Hospital, Ile-Ife, Nigeria.
Email: wajmeditorinchief@gmail.com

Facebook: <https://www.facebook.com/wajmedic>

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At the end of the article the full list of references should give the surname and initials of all authors unless there are more than six, when only the first six should be given, followed by et al. The author's name should be followed by the title of the article, the title of the Journal abbreviated as in Index Medicus, the year of publication, the volume number and the first and last pages. For books, the

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3. **Books:** List all authors or editor when six or fewer: when seven or more, list the first six and add et al.

1. *Author of a Book*
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ETHICAL CONSIDERATION

1. Consent

All manuscripts reporting experiments in human beings must be accompanied by a statement in the method section that the authors have complied with the requirements of the local ethical committee. If investigators have no access to an ethics committee, the principles outlined in the Helsinki Declaration (2) should be followed. Avoid using patient's names, initials or hospital numbers. If full-face photographs are to be used, such photographs must be accompanied by a signed or thumb printed informed consent of the person. Animal experimenters must also follow the institution's guidelines on the use of laboratory animals in research.

2. Criteria for Authorship

The criteria for authorship are as expressed in the Uniform Requirements (1) which state that “authorship credit should be based only on substantial contribution to”:

- (a) conception and design, or analysis and interpretation of data;
- (b) drafting the article or revising it critically for important intellectual content;
- (c) final revision of the version to be published.

Authors should meet conditions a, b, and c. Collecting and assembling data reported in a paper are not, by themselves, qualifications for authorship. The

corollary also should not be over looked i.e. those who meet criteria for authorship should not be excluded.

3. Conflicts of Interest

Authors should list all financial support, including equipment and drugs on the title page. Details of financial interest that might influence the conduct or reporting of the study should be given in the covering letter. Referees (assessors of articles) should also inform the editor of any possible conflict of interest.

4. Previous and Redundant

Publications Manuscripts that overlap substantially with previous publications should not be submitted for consideration. Publication of the abstract arising from a conference does not disqualify the paper. Authors should submit a copy of potential duplicate papers to the editor.

5. Copyright

On acceptance, the copyright of the paper will be vested in the Journal/Publisher. All authors of the manuscript are required to sign the “Statement to be signed by all authors” and the transfer of the copyright.

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**THE 44TH & 45TH ANNUAL
GENERAL AND SCIENTIFIC MEETING**

Of the

**WEST AFRICAN COLLEGE
OF PHYSICIANS (WACP)**

HOSTED BY THE GAMBIA CHAPTER

NOVEMBER 1 - 3, 2021

BOOK OF ABSTRACTS



Members of the LOC and Scientific Committee

Local Organising Committee

1. Dr Uduak Okomo, *FWACP Paediatrics* (**Chair**)
2. Dr Magnus Ochoge, *FWACP Family Medicine* (**Secretary**)
3. Dr Mohammadou Kabir Cham, *FWACP Family Medicine*
4. Dr Abdoulie Jack, *FWACP Community Health*
5. Dr Tumani Corrah, *FWACP Internal Medicine*
6. Dr Esin Nkereuwem, *FWACP Paediatrics*
7. Dr Oghenebrume Wariri, *FWACP Paediatrics*
8. Dr Olubukola Idoko, *FWACP Paediatrics*
9. Dr Effua Usuf, *FWACP Community Health*
10. Dr Ayo Palmer, *FWACP Paediatrics*
11. Dr Ifedayo Adetifa, *FWACP Paediatrics*
12. Dr Kalifa Bojang, *FWACP Paediatrics*
13. Dr Ed Clarke, *FWACP Paediatrics*
14. Dr Karen Forrest, *FWACP Internal Medicine*
15. Dr Bade Abatan, *FWACP Paediatrics*
16. Dr Abdulazeez Imam, *FWACP Paediatrics*
17. Dr Modou Jobe, *FWACP Internal Medicine*
18. Dr Beate Kampmann, *FWACP Paediatrics*
19. Dr Babatunde Awokola, *FWACP Family Medicine*
20. Dr Fatai Akemokwe, *FWACP Internal Medicine*
21. Dr Martin Ota, *FWACP Paediatrics*
22. Dr Ramou Njie, *FWACP Internal Medicine*
23. Dr Lamin Makalo, *MWACP Paediatrics*

Scientific Committee

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2. Dr Effua Usuf, *FWACP Community Health* (**Co-Chair**)
3. Dr Uduak Okomo, *FWACP Paediatrics*
4. Dr Ifedayo Adetifa, *FWACP Paediatrics*
5. Dr Kalifa Bojang, *FWACP Paediatrics*
6. Dr Ed Clarke, *FWACP Paediatrics*
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15. Dr Babatunde Awokola, *FWACP Family Medicine*
16. Dr Fatai Akemokwe, *FWACP Internal Medicine*
17. Dr Martin Ota, *FWACP Paediatrics*



**WELCOME ADDRESS BY HIS EXCELLENCY
THE PRESIDENT OF THE GAMBIA FOR THE 44TH AND 45TH ANNUAL GENERAL
AND SCIENTIFIC MEETINGS OF THE WEST AFRICAN COLLEGE OF PHYSICIANS**

President, West African College of Physicians
Presidents of Sister and Partner Colleges and their Officers
Director, Africa Centers for Disease Control and Prevention
Director General, West African Health Organization
Vice Presidents of the West African College of Physicians
Past Presidents of The College
President-Elect, West African College of Physicians
Honorary College Treasurer
Secretary-General of The College
Distinguished Mabayoje Lecturer
Fellows and Members of the West African College of Physicians
Distinguished Guests, Ladies and Gentlemen

On behalf of the Government and people of the Republic of The Gambia, I am pleased to welcome you all to the 44th and 45th Annual General and Scientific Meetings of the West African College of Physicians.

The Gambia, the Smiling Coast of Africa, with its unique warmth and friendship has a well-known record of hosting the Annual General and Scientific Meetings of the College. The Country is a much-loved destination for Physicians across the West African Subregion not only to examine and discuss scientific and professional matters, but also to relax and enjoy what we have to offer. Unfortunately, the ongoing global COVID-19 pandemic and its variants has made it unsafe for the College to hold its face-to-face meetings for two years in a row. It is my hope that whenever we get over these difficult times, you will come more often to The Gambia on both official and private visits.

I am informed that the AGSMs of your College bring together the largest gatherings of Physicians and Specialists in West Africa. It is thoughtful that the meetings are rotated among its 14-Member Nations, hence the Gambia Chapter is hosting the 44th and 45th Virtual meetings.

Noting the importance of your Annual meetings, I am happy to be accorded the honour of participating in this Opening Ceremony which has been made possible through the effective partnerships that bind the Government of The Gambia, the College, the Gambia Chapter, and our partners and sponsors. I must say with honesty that when we were approached with the request to host the AGSMs virtually, we had doubts about our ability to manage such events at this stage in the development of our nation. Today, I am confident that we can host any meeting if we plan well and have the support we need. For this reason, I thank the Chairperson of the Gambia Chapter and College Vice President, as well as the Local Organising Committee for working hard during the past few months to set the stage for these crucial meetings.

I also appreciate more sincerely the hard work of the College whose objective is the raise the portfolio of Universal Health Coverage within the Subregion. As the theme of your Conference suggests, Universal Health Coverage is indeed a right for everyone, everywhere. I am happy to announce that with the support of our partners and friends, The Gambia has been able to strengthen health care delivery in the face of the COVID–19 pandemic. The Essential Health Services Strengthening Project will provide performance-based financing grants to health facilities, scale up community engagement to improve quality health services; and build strong and sustainable health systems to support the delivery of health services. The project includes renovation of selected health facilities and establishing a national blood transfusion service.

With all this in view, it is thus both an honour and a pleasure for my country, The Gambia, to have been asked to host the first virtual Annual General and Scientific Meetings of the West African College of Physicians. We are delighted to be associated with such innovative undertakings and will continue to support your work.

College President, Distinguished Ladies and Gentlemen, I noted that you have a long list of items on your agenda to cover. Without further delay and to set the conference in motion, it is now my pleasure to declare the 44th & 45th Annual General and Scientific virtual Meetings officially open. I wish you fruitful deliberations and thank you for your attention.

His Excellency Mr Adama Barrow

President of The Republic of The Gambia



WELCOME ADDRESS BY THE HONOURABLE MINISTER OF HEALTH OF THE GAMBIA FOR THE 44TH AND 45TH ANNUAL GENERAL AND SCIENTIFIC MEETINGS OF THE WEST AFRICAN COLLEGE OF PHYSICIANS

Your Excellency, the President of the Republic of The Gambia, Mr Adama Barrow

Honourable Cabinet Ministers

Honourable National Assembly Members

President, West African College of Physicians

Presidents of Sister and Partner Colleges and their Officers

Director, Africa Centers for Disease Control and Prevention

Director General, West African Health Organization

Vice Presidents of the West African College of Physicians

Past Presidents of The College

President-Elect, West African College of Physicians

Honorary College Treasurer

Secretary-General of The College

Distinguished Mabayoje Lecturer

Fellows and Members of the West African College of Physicians

Distinguished Guests, Ladies and Gentlemen

On behalf of the Republic of The Gambia, and particularly the Ministry of Health, I am delighted to welcome you all to the 44th and 45th Annual General and Scientific Meetings of the West African College of Physicians, hosted by the Local Chapter-The Gambia.

I am particularly delighted that The Gambia has recently been able to commence` in-country Postgraduate Medical Training in the specialties of Paediatrics, Internal Medicine, and Family Medicine, in addition to Obstetrics & Gynaecology, and Surgery with support from the World Bank and other partners.

We are most grateful for the WACP's commitment to the Gambia Chapter related to the Postgraduate Medical Education, particularly in providing the structure and content of the training as well as waiving Primary Examination Fees for intending trainees from The Gambia for a period of 3 years from 2018 – 2020. Over this period 29 out of 65 candidates (45%) that sat for the examinations were successful and will form the first cohort of physicians-in-training.

We further note that The Gambia is a constituent member of the WACP that serves as a Health Policy Advisor in the West African subregion, and that some of its members provide the same service for their respective countries.

We are reminded that the Annual General and Scientific Meetings of the College are the largest gathering of Physicians and Specialists in West Africa and are rotated among its 14-Member Nations. We are therefore glad that the 44th & 45th AGSMs are being hosted by the Gambia Chapter even though virtually due to the Covid-19 pandemic.

Our West African Subregion is still dominated by high prevalence of communicable and non-communicable diseases, weak and fragmented health systems thus exposing the subregion to significant health challenges despite the multitude of stakeholders active in health care delivery.

Although The Gambia has an excellent coverage of EPI vaccines, we cannot rest on our oars in the fight against all vaccine preventable diseases. Roll out and uptake of COVID-19 vaccines has been good, but like all low-and middle-income countries, we are unable to boast of high vaccine coverage among our adult and at-risk populations.

The Theme for this year's AGSM is “Universal Health Coverage: A Right for Everyone, Everywhere”, with the following Subthemes: (1) Destigmatising Mental Health in the Subregion; and (2) Role of Vaccines in Universal Health Coverage.

We sincerely hope that your deliberations will help address some of the policy and implementation issues at stake within the selected themes and subthemes.

Please enjoy the next three days of your AGSM and networking. Once more, you are most welcome to the 44th & 45th Annual General and Scientific Meetings of the West African College of Physicians. Thank you for your kind participation.

Dr Ahmadou Lamin Samateh *FWACS*
Honourable Minister of Health,
Republic of The Gambia



WELCOME ADDRESS BY THE VICE PRESIDENT AND GAMBIA CHAPTER CHAIR TO THE 44TH AND 45TH ANNUAL GENERAL AND SCIENTIFIC MEETINGS OF THE WEST AFRICAN COLLEGE OF PHYSICIANS

His Excellency, the President of The Republic of The Gambia
The Honourable Minister of Health
College President, Dr Radcliffe Durodami Lisk
Presidents of Sister and Partner Colleges and their Officers
Director, Africa Centers for Disease Control and Prevention
Director General, West African Health Organization
Vice Presidents of the West African College of Physicians
Past Presidents of The College
President-Elect, Dr Rose Jallah Macauley
Honorary College Treasurer Dr Enobong Ikpeme
Secretary-General, Dr Albert Akpalu
Professor Angela Okolo, 2021 Distinguished Mabayoje Lecturer
Fellows and Members of the West African College of Physicians
Distinguished Guests, Ladies and Gentlemen

On behalf of Local Organizing Committee, of Gambia 2021 I welcome you virtually to The Gambia as we host the first ever virtual Annual General and Scientific Meeting of The West African College of Physicians. I know that we were looking forward to gathering again in person, but the ongoing COVID-19 global pandemic and surge of its variants has created a situation beyond our control that has made it impractical and impossible for The LOC to hold the meeting in person.

The themes for the 44th and 45th AGSM, “Universal Health Coverage: A right for everyone, everywhere”, “The role of vaccines in universal health coverage”, and “Destigmatising mental health in the sub-region”, are timely. Sustainable Development Goal 3 aspires to ensure healthy lives and promote well-being for all, at all ages. It also aims to achieve **universal health coverage**, provide access to safe and effective medicines and vaccines for all, while supporting research and development for **vaccines** as well as expanding access to affordable medicines. In recent years, mental health has stepped out of the shadows and is increasingly being part of the “conversation”; yet the stigma of **mental health** contributes to health disparities and discrimination and continues to permeate all of society, affecting people at all levels.

The impact of the current coronavirus disease pandemic on health service provision and utilisation, the management of related co-morbidities and the major prevalent public health challenges, including mental health cannot be overemphasised. Sadly, since the pandemic began, we have lost family members, friends, and colleagues May they rest in peace.

45 years of WACP is a great milestone and we have remained relevant as a body and repositioning ourselves to the changing dynamics of health care, training, and education, with our strategic plan cycle in full gear.

We strongly feel that to improve healthcare delivery in the sub-region, advance research collaboration and networking, it is pivotal to connect with the global medical community. Our international partnerships continue to grow with excellent and mutually beneficial programs being executed. The virtual format has made the AGSM accessible to more people than ever and for the first time in the history of our College, we have almost 1500

members and Fellows registered for the AGSM and currently connected to this virtual meeting from across 21 countries of the world.

Another first in the history of the College is our virtual induction ceremony with over 800 incoming Members and Fellows being inducted today. We congratulate and welcome them all into our prestigious College. We are delighted to observe the growth and nurturing of National colleges and look forward to fruitful deliberations and exchange of ideas and personnel as is being demonstrated by the recent addition of the Sierra Leone College. We continue to record growth of our francophone chapters with WACP membership increasing following the successful holding of scientific and local AGSM in all of them. Truly we are seeking Franco/Anglo/Lusophone integration. We continue to look forward to further integration of WACP Examiners observing and participating in the DES examinations.

Faculty/Chapter activities have been very active with very timely and important workshops, symposia Doctors as educators' courses organized across the subregion. Examinations have improved with reorganization of the exams procedures and processes, training of examiners and feedback received from recent questionnaires on improving our exams will be discussed here and we will improve on our pass rates and mandate. Computerization of our records is ongoing with digitization of dissertations available on the website and attracting international attention. The college continues to improve and be relevant, online payment systems, reorganization and restructuring to meet our strategic plans.

The LOC and Scientific Committee have worked diligently to make this virtual meeting a rewarding and interactive experience so we can showcase our important work and continue to learn from and with each other as we meet here over the next few days

Welcome and we look forward to a successful AGSM

Dr Uduak Okomo *MBBCh, MSc, FWACP (Paediatrics), PhD*

Vice President & The Gambia Chapter Chair

West African College of Physicians



PRESIDENT'S ADDRESS TO THE 44TH/45TH ANNUAL GENERAL MEETING, 2021

Vice Presidents of the WACP, College officials, Fellow Fellows and Members, I thank you all for participating in this extraordinary 44th and 45th AGSM of our College. Extraordinary in the fact that this is the very first virtual AGSM of our College and you will all agree that it has exceeded our expectations and kudos to the Gambian Chapter and in particular Dr Uduak Okomo who led this venture.

This is just one example of the ways College has adapted to the unusual circumstances brought about by the covid 19 epidemic. Online meetings, virtual update courses and even virtual examinations have been adopted with the result that College activities have continued with little disruption.

Innovations such as the Computer based Testing have been implemented and College is striving to open more clinical examination centres for the ease of examiners and candidates alike. To this end more examiners are being trained and certified.

We aim to complete our building in

Abuja within the next two years. This will bring in much needed revenue to College and reduce our dependency on Examination fees and college dues. This is why we must all endeavour to contribute to the Building fund. This should be our legacy to this great College and I implore each and everyone to make their contributions as soon as possible.

The College must grow and we must look at creative ways to bring in suitable colleagues outside the subregion to enrich our faculties. Well established Colleges like the Royal Colleges are already doing this and so must we. Not doing this is not an option as we must harness the skills of our colleagues abroad to strengthen our training programmes and we must compensate for the accelerated attrition of Fellows in the subregion and the reduction of new recruits to the College.

We are presently looking at our Constitution and trying to amend it to suit prevailing circumstances. A

committee headed by Dr Olufemi Ogunbiyi is already working on this and hope a draft will be available soon. Chapters, Faculties and Committees are encouraged to submit changes they would like to the Committee as soon as possible.

Great improvements in the administration of the College secretariat have been made with the recruitment of more qualified staff and annual staff appraisal is now in place. We now have a bilingual human resource officer, a full time IT officer and an internal auditor.

Finally I urge our Francophone colleagues to continue to support the College and participate in College programs. This College is truly West African and cannot be regarded as successful until Anglophone, Francophone and Lusophone countries are fully engaged.

I thank you all for your attention.

Dr. Durolami R. Lisk, PWACP
College President

WELCOME ADDRESS BY SECRETARY GENERAL WACP TO THE OPENING CEREMONY OF THE 44TH/45TH AGSM OF THE WACP

Good Morning, his Excellencies, the President WACP, Dr Durodamil Lisk, Chairman Board of trustees, Dr Sunny Kuku, Vice Presidents of the College, Presidents of Sister Colleges, all Protocols observed.

I welcome you to the 44th and 45th Covid delayed AGSM of the WACP. We will have all wished to be in Banjul physically but alas. However, this is the very first virtual AGSM of the College with a

record number of attendees and abstracts from all over the globe.

We have intriguing presentations, symposia and the Mabajoye lecture by the distinguished Dr Angela Okolo.

We want you to enjoy this virtual Kenes experience and navigate through the virtual platform www.wacpagsm2021

Kudos to the local organizing committee of the Gambia led by the indefatigable VP Dr Uduak Ukomu, WACP Exco,

College Treasurer and Administrative team as well as all the graduands, participants, and Fellows of the College.

We want you to enjoy this virtual experience and join the Annual General Meeting.

Thank you all for attending this virtual AGSM. Stay safe and long live the WACP

Dr Albert Akpalu



EDITORIAL

THE CHALLENGES OF COVID-19 IN THE PURSUIT OF UNIVERSAL HEALTH COVERAGE

We welcome this Book of Abstracts from the conference proceedings of the 44th and 45th Annual General and Scientific Meeting (AGSM) of the West Africa College of Physicians (WACP) which held on the 1st to 3rd of November 2021 virtually, hosted by The Gambia chapter.

The themes for the AGSM were “Universal Health Coverage: A right for everyone, everywhere”, “The role of vaccines in universal health coverage”, and “Destigmatising mental health in the sub-region.” We wish to commend the Chairman, Secretary, the local organizing committee, the chair of scientific committee and the entire staff who worked tirelessly to organize an entirely virtual program with participants from all over West Africa.

There were over 120 abstracts of which 31 were oral presentations, covering all aspects of medical and surgical subspecialties. The most predominant presentations were COVID-19 themed which reflects the realities of the times we live in. Many presentations were also from paediatrics which essentially shows we are an evolving economy where childhood infections are a ravaging problem.

All over the world, scientific conferences and meetings have had to adapt to changes imposed by the SARS-CoV-2 (COVID-19) outbreak. This pandemic has also brought to the fore germane issues regarding affordability and accessibility to healthcare, disruptions to healthcare services and general healthcare inequalities, particularly for people in low- and

middle-income countries (LMIC). Adeniyi et al investigated the willingness to pay for health insurance in a cross-sectional study among formal sector workers in Port-Harcourt, Nigeria. They found evidence that majority of participants were paying for health out-of-pocket and they expressed the desire to pay for the National Health Insurance Scheme (NHIS) so the cost of health can be mitigated.

Numerous papers addressed the issue of immunization service disruptions due to COVID-19 pandemic and vaccine access for LMIC. In a survey to evaluate disruptions to routine immunization for pregnant women and children during the COVID-19 pandemic, Saso et al highlighted disruption of immunization schedule due to logistic barriers, staff shortages and fear of attending clinic by service users. This highlights the need to develop innovative strategies for safe vaccine deliveries which are flexible, rapidly-adaptable and context specific. Moreover, proper information dissemination and vaccine campaigns must be vigorously pursued in order not to lose the milestones we have reached through immunization in Africa. Another abstract approached vaccine equity via the lens of domestic vaccine manufacturing in LMICs, particularly in West Africa, as a means of improving access to essential medical services during pandemics.

A cost of illness study by Adamu et al compared childhood clinical pneumonia and invasive pneumococcal disease in Nigeria. The results showed

that majority of very poor households experienced catastrophic health expenditure as health care financing was out-of-pocket. An advocacy was made for government to sustain pneumococcal vaccine as a means of reducing the risk of impoverishment for those households. Another study from Port-Novo and Cotonou evaluated the use of antenatal echocardiography to evaluate congenital malformations in children. They found a very high degree of concordance between the antenatal diagnosis and postnatal diagnosis and advocated for an increase in training and capacity building so as to ensure better utilization of this diagnostic tool.

The pandemic has brought mental health issues to the fore more than ever before and this was evidenced by abstracts relating to mental health responses during the pandemic, health-related quality of life in HIV-infected children and following tuberculosis treatment among children. Moderately high levels of psychosocial distress, depression and panic were found among the participants. A need for a mental health response plan for citizens and community members in the West African subregion was highlighted.

It is our practice to publish the book of abstracts for our scientific meetings. We encourage all authors and scientific organizations to develop these abstracts into full papers and submit to the WAJM for publication, we promise to maintain the standard and attend promptly to all submitted manuscripts.



ORAL PRESENTATIONS

UNIVERSAL HEALTH CARE

TRACK 1

ID:140

Topic: *AS01 Universal Health Care / 1.7 Digital health (including mobile health mHealth; Health information technology, wearable devices, telehealth, telemedicine)*

READINESS, BARRIERS, AND ATTITUDE OF STUDENTS TOWARDS ONLINE MEDICAL EDUCATION AMIDST COVID-19 PANDEMIC: A STUDY AMONG MEDICAL STUDENTS OF EBONYI STATE UNIVERSITY ABAKALIKI, NIGERIA

E. Ossai^{1,2}, C. Umeokonkwo¹, I. Eze^{1,2}, L. Ogbonnaya^{1,2}

¹Alex Ekwueme Federal University Teaching Hospital Abakaliki, Ebonyi State Nigeria, Community Medicine, Abakaliki, Nigeria, ²College of Health Sciences, Ebonyi State University Abakaliki, Nigeria, Community Medicine, Abakaliki, Nigeria

Background: COVID-19 pandemic caused great disruption to medical education in Nigeria. This study was designed to find the readiness, barriers, and attitude of medical students of Ebonyi State University Abakaliki, Nigeria to online medical education

Methods: A Cross-sectional study design was employed. All matriculated medical students of the university were included in the study. Information was obtained using a pre-tested, semi-structured questionnaire which was self-administered. Good attitude towards information and technology (IT) based medical education was determined by proportion of respondents that correctly answered 60% of nine variables. Readiness for online classes was determined by proportion of students who preferred either a combination of physical and online lectures or only online medical education amidst COVID-19 pandemic.

Results: Four hundred and forty-three students participated in the study, (response rate; 73.3%). Mean age of students was 23.0±3.2 years. Majority, 52.4% were males. Most preferred source for studying before COVID-19 pandemic included textbooks, 55.1%, and lecture notes, 19.0%. The commonly visited websites included Google, 75.2%, and WhatsApp, 70.0%. Less than half, 41.1% have a functional laptop. Majority, 96.4% have a functional e-mail address while 33.2% participated in a webinar during COVID-19 pandemic. Though 59.2% had good attitude towards online medical education, only 56.0% expressed readiness for online medical education. Major barriers to online medical education included poor internet connectivity, 27.1%, and poor e-learning infrastructure. Predictors of readiness for online medical education included previous participation in a webinar, AOR=2.1, (95%CI: 1.3-3.2) and having good attitude towards IT-based medical education, AOR=3.5, (95%CI: 2.3-5.2).

Conclusions: Majority of students showed readiness for online medical education. University authorities should ensure that every medical student owns or have access to a dedicated laptop through a university-mediated arrangement. Adequate attention should be given to the development of e-learning infrastructure including steady internet services within the confines of the university.

ID:205

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

EVALUATION OF ANTENATAL ECHOGRAPHIC DIAGNOSIS OF CONGENITAL MALFORMATIONS IN UNIVERSITY PEDIATRIC DEPARTMENTS OF COTONOU AND PORTO-NOVO

F. Lalya¹, N. Enianloko-Tchiakpe², H. Tonoukouin¹, G. Bognon³, F. Alihonou¹, L. Bagnan-Tossa¹, M. D'Almeida-Hounnou¹, S. Adjadohoun¹, M. Aboubakar^{1,1} *University Hospital CNHU Hubert K. Maga, Pediatrics, Cotonou, Benin,*
¹*University Hospital CHU-MEL, Pediatrics, Cotonou, Benin,* ³*University Hospital CHUD-OP, Pediatrics, Cotonou, Benin*

Background: Congenital malformations are a major cause of morbidity and mortality in an era where obstetric ultrasound are on the rise among children. But many of these birth defects are only diagnosed after birth. Our study therefore set out to evaluate the condition of realization and the contribution of ultrasound in the prenatal diagnosis of congenital malformations in the pediatric departments of University hospitals in Cotonou and Porto-Novo.

Methods: This was a cross-sectional prospective, retrospective, and descriptive study including the newborns and infants admitted in the pediatric departments of University hospitals CNHU-HKM and CHU-MEL in Cotonou, and CHUD-OP in Porto-Novo with a congenital malformation and whose mothers performed at least one ultrasound during pregnancy. We assessed the diagnostic performance of these ultrasounds about congenital malformations. The data was analyzed by computer.

Results: During the study period 5,173 admissions were recorded. Among them, 102 were admitted for congenital malformation (hospital frequency: 1.9%). Among the 102 cases of malformations, only 51 performed at least one antenatal ultrasound. A total number of ninety-four ultrasounds were performed on these 51 newborns and infants. The frequency of antenatal ultrasonic diagnosis of congenital malformations was 22.3%. Abdominal wall malformations, in particular omphalocele, were the most diagnosed on ultrasound with a frequency of 47.2%. Only 29.8% of ultrasounds were reported according to guidelines and recommendations. Obstetricians were the most numerous performers of antenatal ultrasounds with a frequency of 32.9%. In 27.7% of cases, the qualification of the sonographer was not specified. Among the ultrasounds which detected the malformations, the concordance rate between antenatal and postnatal diagnoses was 90.3%.

Conclusions: Antenatal ultrasound still has low performance in the diagnosis of birth defects in our environment. It would be appropriate to improve this performance through the training and capacity enhancement of ultrasound performers, in order to better anticipate these malformations.

ID:192

Topic: *AS01 Universal Health Care / 1.1 Evidence to Policy: Financing Healthcare for Universal Health Coverage*

WILLINGNESS TO PAY FOR SOCIAL HEALTH INSURANCE AMONG FORMAL SECTOR WORKERS IN PORT-HARCOURT, RIVERS STATE; A CONTINGENT VALUATION APPROACH

F. Adeniji, O. Adebisi

University of Port Harcourt Teaching Hospital, Community Medicine, Port Harcourt, Nigeria

Background: A robust financing system such as a mandatory social health insurance scheme is vital to achieving UHC as this allows the pooling of funds and spreading of risk across a larger population.

Methods: This was a descriptive cross-sectional study. A multi-stage random sampling method (simple random sampling + proportionate to size) was used. An iterative bidding approach of the contingent valuation method was carried out. Data collection was interviewer-administered via ODK on android phones. Data were extracted, cleaned, and analyzed with IBM SPSS version 23. Chi-square test and logistic regression were done. P-Value ≤ 0.05 was used.

Results: Respondents were made up of 208 (59.3%) males and 143 (40.7%) females. Mean age was 40.60 ± 7.33 years. More than half, 199 (56.7%) have a family size of between 4 and 6 persons, and 113 (32.2%) earned between 40000-89999 naira monthly. A majority 263 (75.0%) treated malaria in the month prior to the survey, most 272 (78.6%) sort treatment at the chemist. A significant proportion 338 (98.3%) paid for care from out of pocket, only 233 (66.4%) were willing to pay for the NHIS. The major reason given for not willing to pay was they did not feel the need for it. Mean

WTP for self and family with inflation was 1634.79 ±1161.50 (4.54\$) and 1622.33±1160.22 (4.51\$) naira respectively. The overall estimate of the mean WTP as a proportion of average monthly salaries was 1.96% for self and 1.96% for household members. Age, education, marital status, and income were significantly associated with willingness to enroll for the NHIS. $P \leq 0.05$. Income and recent illness in household members were predictors of willingness to pay.

Conclusions: Concerted effort should be made to encourage civil servants to improve on their health-seeking behaviour and the need to reduce their OOP expenditure on health through the NHIS should be impressed on them.

ID:153

Topic: *AS01 Universal Health Care / 1.3 Public health education*

STREET HAWKING AND ITS EFFECT ON THE NUTRITIONAL STATUS AND PSYCHOSOCIAL WELLBEING OF SECONDARY SCHOOL CHILDREN IN ILORIN WEST LOCAL GOVERNMENT AREA, KWARA STATE, NIGERIA

T. Ibrahim, A. Ojuawo, S. Ernest

University of Ilorin Teaching Hospital, Department Of Paediatrics And Child Health, Ilorin, Nigeria

Background: Street hawking, though condemned by the International Labour Organization (ILO), is a common social menace amongst children in our society, including school children. The practice, attributed mostly to poverty, endangers the health of the children. The study examined the prevalence of street hawking amongst secondary school children in Ilorin West Local Government Area (LGA), and further assessed its effect on their nutritional status and psychosocial wellbeing.

Methods: A cross-sectional analytical study of 648 students was conducted using a self-administered questionnaire to obtain data on socio-demographic characteristics and street hawking activities. The psychosocial wellbeing of the students were assessed using the Strength and Difficulty Questionnaire (SDQ). The anthropometry of each subject was taken, and the BMI parameters computed using WHO Anthroplus software to determine the nutritional status. All data obtained were statistically analysed and significance set at p value < 0.05 .

Results: The overall prevalence of street hawking was 27.4%, which comprised 40% and 1.5% of children in the public and private schools respectively. The prevalence of malnutrition among the hawking population based on BMI-for-age z-score was 32.7%, constituted by severe thinness in 9.7%; thinness in 22.4%; and overweight in 0.6% of the hawkers. Based on the Height-for-age z-score, the prevalence of stunting was 20% (16.4% stunted; 3.6% severely stunted). Hawking students significantly suffered under-nutrition compared to non-hawking students ($p < 0.05$). Approximately 19% of the street hawking students had either 'possible' or 'probable' risk of psychosocial problems. The probable risk of psychosocial problems was significantly higher among the hawking compared to non-hawking students ($p = 0.003$).

Conclusions: Street hawking adversely affects the nutritional status and psychological wellbeing of children. The study therefore recommends a need for social empowerment schemes to improve the socioeconomic status of parents and ultimately help to eliminate children's involvement in hawking. Keywords: Street hawking, Nutritional status, Psychosocial wellbeing, Children

ID:116

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

DIAGNOSTIC AND EVOLUTIVE PROFILE OF AUTOIMMUNE THYROID DISEASE IN THE INTERNAL MEDICINE DEPARTMENT OF HALD DAKAR-SENEGAL

B. Djiba, N. Diagne, A.C. Ndao, A. Faye, M. Sow, M. Dieng, B. Kane, A. Pouye
Hopital Aristide le dantec Dakar-Senegal BP., Dakar, Dakar- Ponty, Senegal

Background: Autoimmune thyroid disease (AITD) in its various forms is relatively common in human medicine. However, studies in their entirety are rare, especially in our regions.

Methods: This was a descriptive retrospective study over the period from 2016 to 2019 on the files of patients who

consulted or were hospitalized for autoimmune dysthyroidism in the internal medicine department of Aristide Le Dantec hospital.

Results: AITD represented 12.96% of internal medicine consultations. The sex ratio M / F was 0.16. The majority of our patients (57.86%) were aged between 25 and 44 years with extremes ranging from 11 to 63 years. A family history of dysthyroidism was sought in 61.59% of cases (93 patients). Graves' disease was retained in 94.97% of patients against 5.03% (ie 8 patients) for Hashimoto's thyroiditis. -In Graves' disease, the notion of stressful life events was found in 60.27% of cases (i.e. 44 patients). Three autoimmune diseases were associated with Graves' disease. They were myasthenia gravis, Biermer's disease and adrenal insufficiency. Leukopenia was found in 7.94% of cases and microcytic anemia in 20.63% of patients. TSH collapsed 89.40% of the time. Elevated T4 was found in 88.08% of cases. Anti-TSHR antibodies were positive in 96.15% of cases and anti-TPO antibodies in 2 patients. Antithyroid drugs were prescribed in 143 patients (94.70%). Thyroidectomy was performed in 6.62% of cases. Remission was noted in 59.60% of cases. During treatment, nine patients presented with iatrogenic hypothyroidism. Anti-TPO antibodies were positive in all patients. All patients had received thyroid hormone supplementation. After treatment, euthyroidism was noted in 87.50% (7 patients).

Conclusions: AITD are relatively frequent in our context dominated by Graves' disease. The inaccessibility of the assay of antithyroid antibodies constitutes an obstacle to the diagnosis as well as to the adequate management of these conditions. Keywords: dysthyroidism, autoimmune, Basedow

AGE-RELATED HEALTHCARE

TRACK 2

ID:43

Topic: AS02 Age-related healthcare / 2.1 Maternal, newborn and child health

REDUCED HEALTH-RELATED QUALITY OF LIFE AFTER TUBERCULOSIS TREATMENT IN GAMBIAN CHILDREN

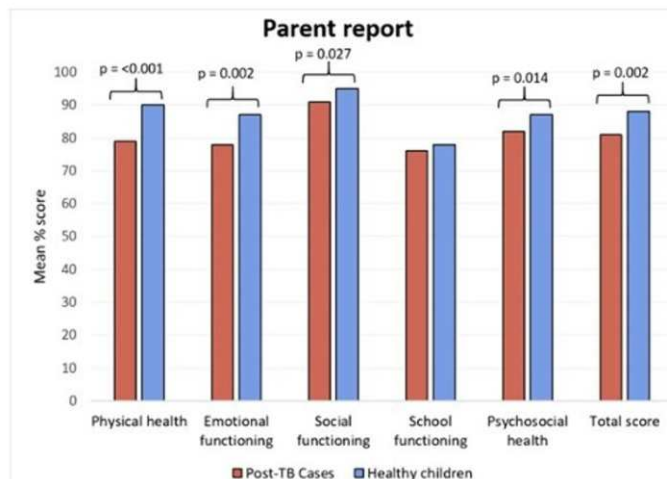
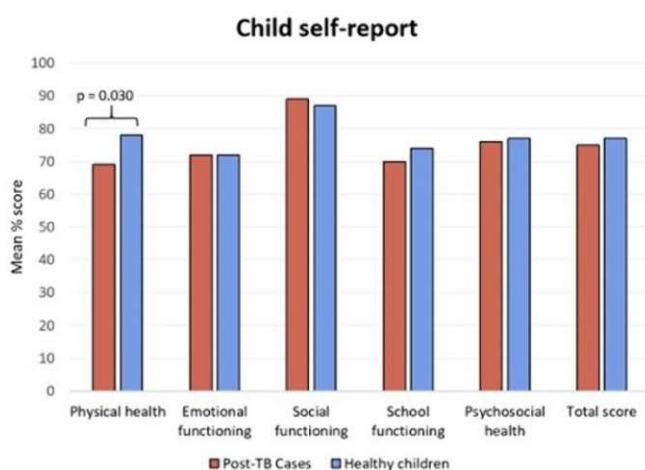
E. Nkereuwem^{1,2}, M. Genekah¹, M. Jawara¹, S. Kandeh¹, A. Tunkara¹, B. Kampmann^{1,3}, T. Togun^{1,2}

¹MRC Unit The Gambia at LSHTM, Vaccines And Immunity Theme, Fajara, Gambia, ²London School of Hygiene and Tropical Medicine, Tb Centre And Faculty Of Infectious And Tropical Diseases, London, United Kingdom, ³London School of Hygiene and Tropical Medicine, The Vaccine Centre, London, United Kingdom

Background: Chronic physical and psychological consequences such as reduced health-related quality of life (HRQoL) following treatment of pulmonary tuberculosis (PTB) are increasingly recognised as debilitating critical outcomes in adults. However, data on the prevalence and pattern of this complication are sparse among children who suffered from PTB. We present HRQoL data of children at least six months after completing PTB treatment in The Gambia.

Methods: This was a cross-sectional comparative study. We used the generic Paediatric Quality of Life Inventory 4.0 (PedsQL™ 4.0) instrument to measure the HRQoL among children (aged 5 to 15 years) who were diagnosed with PTB between 2014 and 2019 and had completed anti-tuberculous treatment at least six months before enrolment. We also enrolled a comparison group of healthy children who lived in the same compound as the post-TB cases but with no history of TB disease. HRQoL was measured in six scales: physical health, emotional functioning, social functioning, school functioning, psychosocial health (combined score of the emotional, social, and school functioning subscales) and a total scale. The responses were collected from the child and the parent independently.

Results: We enrolled 68 post-TB cases (47% females) and 91 healthy controls (37% females). The post-TB cases reported significantly lower mean % HRQoL scores (69.4 ± 23.2) on the self-reported physical functioning scale of the PedsQL™ compared to the healthy children (77.5 ± 20.3), $p = 0.03$. Similarly, the post-TB cases had significantly lower mean % scores compared to the healthy children in five out of six of the parent-reported PedsQL™ scales.



Conclusions: Post-TB cases had significantly lower HRQoL scores compared to healthy children. This study highlights the need for longitudinal assessment of physical and psychosocial health after PTB treatment completion to better understand the evolution and risk factors of poor quality of life outcomes among these children.

ID:158

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

MANAGING EXTREMELY PRETERM NEWBORNS AT THE FEDERAL MEDICAL CENTER ASABA, DELTA STATE, NIGERIA: A LOW RESOURCE SETTING

B. Basime, T. Ndobu, J. Ajanweyi, A. Okolo
Federal Medical Centre, Asaba, Paediatrics, Asaba, Nigeria

Introduction: Preterm birth is an important cause of neonatal morbidity and mortality globally. The burden of preterm births contributes to the adverse neonatal outcomes encountered in Low middle-income settings. Despite the desperate attempts made to refocus care of such babies, the clinical course is protracted and the economic burden of care is extremely high.

Short Case: An extreme low-birth-weight (750gms) preterm infant born at 27 weeks gestation to a 28-year-old, Gravida 5, Parity 3 with none alive woman was referred at age 120 hours in severe respiratory distress, hypothermia, dehydration and Jaundice. He was rewarmed, stabilized, placed on Bubble Continuous Positive Airway Pressure (B-CPAP) ventilation, and parenteral caffeine. Surfactant was administered within the hour of admission via the Minimally Invasive Surfactant Therapy (MIST) method. He was given antibiotics, placed on phototherapy and rehydrated with intravenous fluids. Thereafter, he was maintained on Gavage feeds with expressed breast milk until cup feeding was introduced. His mother was involved in his care and taught the principles of kangaroo mother care (KMC) and cup feeding with expressed breastmilk. After initial problems of establishing feeds and recovering from protracted pulmonary morbidity, he has progressed well and was discharged home weighing 1500 grams at the age of 45 days. He receives home based continuous Kangaroo care, twice-weekly clinic visits and routine immunization. Seen at 70 days, he weighs 2400gm, still practices KMC and mother's milk output is now at 2 liters per day.

Conclusions: The use of B-CPAP, Caffeine, Surfactant, antibiotics and Conservative medical measures as cup feeding with expressed breastmilk, KMC and family centered care were contributory to good outcome in this case.

ID:108

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

AN UNUSUAL PRESENTATION OF ANAPHYLACTIC SHOCK IN CHILDREN WITH SEVERE MALARIA: CASE SERIES

O. Andrew¹, G. Nwankwo²

¹*Alex Ekwueme Federal University Teaching Hospital, Paediatrics, Abakalilki, Nigeria,* ²*University of Calabar Teaching Hospital, Paediatrics, Calabar, Nigeria*

Introduction: Severe malaria is characterised by hyperparasitemia with *Plasmodium falciparum* specie and can present in several ways. Anaphylactic shock has been scarcely described as a presentation of children with severe malaria. We present two cases of severe malaria characterised by anaphylactic shock in a tertiary hospital in Nigeria in 2018.

Short Case: Short cases: Case 1 was a 13-year-old male who presented with a three-day fever, an itchy rash for two days and sudden weakness. He was conscious with generalised urticaria, an axillary temperature of 39.5°C, and absent peripheral pulses. Peripheral blood smear showed heavy parasitemia (++++) of *Plasmodium falciparum* trophozoites. Case 2 was a 7-year-old female who came with complaints of generalised rash, itching of 4 hours and fever of 3 hours before presentation. She was conscious with generalised urticaria, an axillary temperature of 39.5°C, and absent peripheral pulses. Blood film showed 11,735 *Plasmodium falciparum* trophozoites/ microlitre (> 5% parasitised red blood cells). There was no exposure to any known trigger in both cases. Both cases were managed as Severe Malaria with anaphylactic shock. Intramuscular epinephrine, intravenous fluids, hydrocortisone, high flow oxygen and antihistamine were given for resuscitation. Further treatment was with intravenous Artesunate, antipyretics and oral Artemisinin combination therapy subsequently after three doses of intravenous Artesunate. Their recovery was complete, and they were counselled on the use of insecticide-treated nets.

Conclusions: Conclusion: The presence of typical anaphylactic features such as urticaria and shock with heavy parasitemia raises curiosity on the role of IgE (and other mediators) in malaria. It is plausible that malaria parasites or its components may elicit allergic inflammatory responses in susceptible individuals, thereby modifying their clinical presentation. While controversy still exists in host hypersensitivity response to malaria, this series revealed that severe malaria should be suspected in children presenting with anaphylactic shock in malaria-endemic areas.

ID:94

Topic: *AS02 Age-related healthcare / 2.2 Adolescent health*

MALIGNANT OCULAR MEDULLOEPITHELIOMA DIAGNOSED IN AN ADOLESCENT FEMALE AT A TERTIARY HEALTH FACILITY IN SOUTHWESTERN NIGERIA: CASE REPORT AND REVIEW OF THE LITERATURE

T. Ogunsanya, I. Nwanji, B. Awosusi

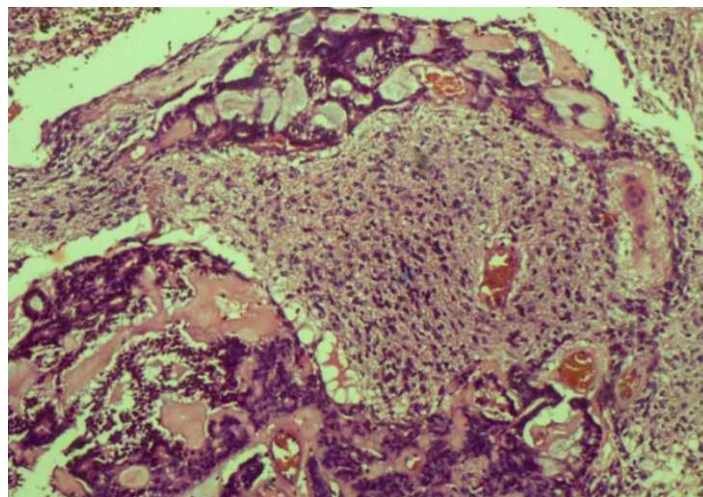
University College Hospital, Department Of Pathology, Ibadan, Nigeria

Introduction: Intraocular medulloepithelioma is a rare, nonhereditary neoplasm of childhood arising from primitive medullary epithelium, often involving the ciliary body. It is a slow growing tumour and most patients present between 2 and 10 years of age with loss of vision, pain, leucocoria and/or conjunctival congestion. There appears to be no gender or racial predilection and it is usually unilateral, with no preference for either eye. There is paucity of large-scale population-based studies on this tumour owing to its rarity, making it difficult to estimate its true incidence. To the very best of our knowledge, this is the first reported case of histologically diagnosed primary malignant ocular medulloepithelioma in Nigeria.

Short Case: We report the case of a 16year old female who presented with painful progressive left ocular swelling and visual deterioration of 8 years' duration with associated redness and tearing. No symptom referable to the central nervous system was noted. At presentation, a soft fleshy mass was seen protruding from the inferior aspect of the left eyeball, and enucleation of ocular contents was subsequently performed. Microscopic evaluation of the lesion showed distorted eye tissue with infiltration of the cornea, uveal tract and retina by malignant primitive neuroepithelial cells disposed in sheets, anastomosing cords and multiple classic Homer Wright rosettes with areas showing neuronal differentiation and marked nuclear atypia. The tumour also had a high mitotic index. The features seen were consistent

with the diagnosis of a malignant teratoid medulloepithelioma. The patient also had chemotherapy and radiotherapy, and was subsequently discharged home for follow up at the outpatient clinic (*See Appendix 7*).

Conclusions: Primary intraocular medulloepithelioma is a rare neoplasm occurring usually in the first decade of life. Prior to this, no case has been reported from Nigeria especially in an adolescent female. The mainstay of treatment is surgery with chemo-radiation.



ID:193

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

CHILDHOOD ACUTE RESPIRATORY ILLNESS, DIARRHOEA AND MALARIA: EPIDEMIOLOGY AND MANAGEMENT IN THE GAMBIA 2009 – 2018 (CADAMEM STUDY)

E. Fitchett¹, S. Reddy¹, S. Yeung¹, A. Jammeh², N. Mohammed³, F. Akemokwe⁴, K. Forrest⁴, K. Manneh⁵, W. Samateh⁶, K. Daffeh⁷, U. D'Alessandro³, K. Bojang³, A. Roca³, E. Usuf⁸

¹LSHTM, Clinical Research, London, United Kingdom, ²Ministry of Health, Epidemiology And Disease Control, Kotu, Gambia, ³Atlantic Boulevard, Fajara, Dce, Banjul, Gambia, ⁴MRC Unit The Gambia at LSHTM, Clinical Services Department, Fajara, Gambia, ⁵Kanifing General Hospital, Ceo, Kanifing, Gambia, ⁶Farafenni General Hospital, Ceo, Farafenni, Gambia, ⁷Soma District Hospital, Ceo, Soma, Gambia

Background: The majority of presentations of childhood acute febrile illness occur in the outpatient setting; yet few data are available on presenting clinical syndromes, or use of diagnostics and treatments, despite routine collection; including in The Gambia. The majority of presentations of childhood acute febrile illness occur in the outpatient setting; yet few data are available on presenting clinical syndromes, or use of diagnostics and treatments, despite routine collection; including in The Gambia.

Methods: Anonymized data on all outpatient visits of children 5 years and younger over a ten-year period (2009 - 2018) were retrospectively collected from the clinical record books from six Gambian health facilities. Key variables were date of presentation, age, sex, clinician/nurse diagnoses, malaria RDT and/or blood film result, and medications prescribed. Where available, clinical parameters included presenting symptoms, weight, temperature, respiratory rate, heart rate and other investigations. Ethical approval was granted by the MRC-Gambia at LSHTM Ethics Committee.

Results: 280200 records of individual outpatient visits were collected; from government facilities at Kanifing (n=73,325); Farafenni (n=31771); Soma (n=41050); Brikama (n=46000); and Medical Research Council facilities at Fajara (n=15967); and Keneba (n=72087). There was a slight male predominance (52.5%). Documented diagnoses, use of the malaria RDT and treatments prescribed were variable by site and season. Lower respiratory tract infections were diagnosed during approximately 10% of visits. More than 54% visits resulted in antimicrobial prescriptions.

Conclusions: CADAMEM is the largest study of children presenting to outpatient clinics in West Africa, covering the decade after implementation of the malaria RDT, pneumococcal vaccine, and rotavirus vaccine, and a wide geographical catchment area. Outpatient clinical records are an under-utilized tool to understand key trends in the most common childhood illnesses in Sub-Saharan Africa that should be essential drivers of clinical guidelines and international policy on the use of diagnostics, antimicrobials and vaccines for acute febrile illnesses.

ID:65

Topic: AS02 Age-related healthcare / 2.1 Maternal, newborn and child health

PREVALENCE AND RISK FACTORS ASSOCIATED WITH CONGENITAL HEART DEFECTS AMONG NEONATES IN PORT HARCOURT, RIVERS STATE, NIGERIA

O. Amaewhule, B. Otaigbe, P. Opara

University of Port Harcourt Teaching Hospital, Nigeria., Paediatrics, PORT HARCOURT, Nigeria

Background: Congenital Heart Defects (CHD) are structural abnormalities of the heart and intra-thoracic great vessels that are present at birth and may be of functional significance. They are the most frequently occurring congenital anomalies and babies born with severe forms of these defects are likely to die in the neonatal period. The aim of this study was to determine the prevalence of and risk factors associated with CHDs among neonates delivered in Port Harcourt, Rivers State, Nigeria

Methods: Using a stratified sampling technique, 530 neonates were selected from three hospitals in Port Harcourt. The biodata of the parents, socio-demographic information and maternal medical history of selected neonates were obtained by administering a questionnaire to the mothers. Physical examination and echocardiography were performed on all the neonates.

Results: Five hundred and thirty (530) neonates aged 0-7days (5.2 ± 1.8) participated in this study and the male to female ratio was 1.1:1. Forty-three neonates were found to have CHD giving a prevalence of 8.1% [95%CI: 6.0-10.86]. Thirty-nine were acyanotic and four cyanotic. Congenital Heart Defects were found in 21 (48.8%) males and 22 (51.2%) females. The more common heart defects were isolated Atrial Septal Defect in 16 (37.2%), isolated Patent Ductus Arteriosus in 11 (25.6%) and isolated Ventricular Septal Defect, 6 (13.9%). The most common cyanotic CHD was Transposition of the Great Arteries in 2 neonates (4.7%). The clinical features identified in neonates with CHD were, cyanosis, tachypnoea, dysmorphism, hypoxia and murmur. The risk factors of CHD were maternal age ≥ 35 years, diabetes mellitus in pregnancy, use of pregnacare in pregnancy, fever in the first trimester, birth weight < 2.5 kg and residential proximity to an oil/gas flaring station.

Conclusions: The prevalence of CHD is alarmingly high in Port Harcourt and this may be due to the high level of oil pollution in the city.

VACCINES

TRACK 3

ID:259

Topic: AS03 Vaccines / 3.4 Vaccines for emerging infections

IMPACT OF COVID-19 ON IMMUNIZATION SERVICES FOR MATERNAL AND INFANT VACCINES: RESULTS OF A SURVEY CONDUCTED BY IMPRINT—THE IMMUNISING PREGNANT WOMEN AND INFANTS NETWORK

A. Saso¹, H. Skirrow², B. Kampmann³

¹MRC Unit The Gambia at LSHTM, Vaccines & Immunity Theme, Banjul, Gambia, ²Imperial College London, Primary Care and Public Health, Primary Care And Public Health, London, United Kingdom, ³MRC Unit The Gambia at LSHTM, Vaccines & Immunity Theme, Banjul, Gambia

Background: The COVID-19 pandemic response has caused disruption to healthcare services globally, including to routine immunizations. To understand immunization service interruptions specifically for maternal, neonatal and infant vaccines, we captured the local experiences of members of the Immunising Pregnant Women and Infants Network (IMPRINT), a global network of clinicians and scientists working in maternal and neonatal vaccinology.

Methods: We conducted an online survey over 2-weeks in April 2020 consisting of five short sections. Each section included discrete questions to quantify the extent of disruption; sections 4 and 5 also included free-text options to explore the reasons behind reported disruptions. Responses were analysed using both quantitative and qualitative (traditional content analytical approach) methods.

Results: Of the 48 responses received, the majority (75%) were from low-and-middle-income countries (LMICs). Of all respondents, 50% or more reported issues with vaccine delivery within their country. Thematic analysis identified three key themes behind immunization disruption: “access” issues, e.g. logistical barriers; “provider” issues, e.g.

staff shortages; and “user concern” about attending immunization appointments due to COVID-19 fear. Access and provider issues were more commonly reported by LMIC respondents. Overall, participants reported uncertainty among parents and healthcare providers regarding routine immunization.

Conclusions: Our survey provides a snapshot of the impact of COVID-19 on maternal and infant immunization services at the grassroots level of vaccine delivery, within a global context. Our findings reinforce concerns from healthcare professionals and organisations worldwide about the significant “collateral” implications of the pandemic on health outcomes of pregnant women and children. Further quantification of vaccination disruption is needed, alongside health service prioritization, logistical support and targeted communication strategies to reinforce routine immunizations during the COVID-19 response. We have developed an “at-a-glance” visual summary of key recommendations for stakeholders [Fig. 1].



ID:191

Topic: AS03 Vaccines / 3.3 Clinical trials, impact studies and vaccine epidemiology

THE COST OF ILLNESS FOR CHILDHOOD CLINICAL PNEUMONIA AND INVASIVE PNEUMOCOCCAL DISEASE IN NIGERIA

A. Adamu¹, B. Karia², M. Bello³, M. Jahun⁴, S. Gambo⁵, J. Ojal², J.A. Scott⁶, J. Jemutai², I. Adetifa⁷

¹Aminu Kano Teaching Hospital/Bayero University Kano, Community Medicine, Kano, Nigeria, ²KEMRI-Wellcome Trust Research Programme, Epidemiology, Kilifi, Kenya, ³Bayero University/Aminu Kano Teaching Hospital, Kano., Community Medicine, Kano, Nigeria, ⁴Aminu Kano Teaching Hospital/Bayero University Kano, Paediatrics, Kano, Nigeria, ⁵Murtala Mohamed Specialist Hospital, Paediatrics, Kano, Nigeria, ⁶London School of Hygiene and Tropical Medicine, Infectious Disease Epidemiology, London, United Kingdom, ⁷London School of Hygiene & Tropical Medicine, Infectious Diseases Epidemiology, London, United Kingdom

Background: Pneumococcal diseases (PD) are a major cause of morbidity and mortality in children aged <5 years (U5s). Nigeria has the highest burden of PD in Africa and with Gavi support introduced the Pneumococcal Conjugate Vaccine (PCV) in 2016 reduce this burden. Robust data on cost of PDs is required to estimate the full impact of the vaccine and to inform continued investment post-Gavi support. We estimated the health provider and household costs for the treatment of pneumococcal diseases in U5s, and assessed the impact of these costs on household income.

Methods: We recruited U5s with clinical pneumonia, pneumococcal meningitis or pneumococcal septicaemia from a tertiary and a secondary level hospital in Kano, Nigeria. We obtained resource utilisation data from medical records to estimate costs of treatment to provider, and household expenses and income loss data from caregiver interviews to estimate costs of treatment to households. We defined catastrophic health expenditure (CHE) as household costs

exceeding 25% of monthly household income and estimated the proportion of households that experienced it. We compared CHE across tertiles of household income (from the poorest to least poor).

Results: Of 480 participants recruited, 244 had outpatient pneumonia, and 236 were hospitalised with pneumonia (117), septicaemia (66) and meningitis (53). Median (IQR) provider costs were US\$17 (US\$14-22) for outpatients and US\$272 (US\$271-360) for inpatients. Median household cost was US\$51 (US\$40-69). Overall, 33% of households experienced CHE, while 53% and 4% of the poorest and least poor households, experienced CHE respectively. The odds of CHE increased with admission at the secondary hospital, a diagnosis of meningitis or septicaemia, higher provider costs, and caregiver having a non-salaried job.

Conclusions: Sustaining the PCV programme will result in savings for the health provider (government) and households and reduce the risk of further impoverishment of households from catastrophic out of pocket expenses on PD.

ID:189

Topic: *AS03 Vaccines / 3.2 Pre-clinical and laboratory/immunology studies*

ONTOGENY OF PLASMA CYTOKINE AND CHEMOKINE CONCENTRATIONS ACROSS THE FIRST WEEK OF HUMAN LIFE

K. Smolen¹, A. Plotkin¹, C. Shannon², O. Idoko³, J. Pak¹, A. Darboe³, S. Van Haren¹, N. Amenyogbe⁴, S. Tebbutt⁵, T. Kollmann⁴, B. Kampmann⁶, A. Ozonoff⁴, O. Levy¹, O. Odumade¹

¹*Boston Children's Hospital, Division Of Infectious Diseases, Boston, United States of America*, ²*PROOF Centre of Excellence, Infectious Diseases, Vancouver, Canada*, ³*London School of Hygiene and Tropical Medicine, Faculty Of Paediatrics, Fajara, Gambia*, ⁴*Telethon Kids Institute, University of Western Australia, Paediatrics, Perth, Australia*, ⁵*UBC Centre for Heart and Lung Innovation, Division Of Respiratory Medicine, Vancouver, Canada*, ⁶*London School of Hygiene and Tropical Medicine, The Vaccine Centre, London, United Kingdom*

Background: Early life is marked by distinct and rapidly evolving immunity and increased susceptibility to infection. The vulnerability of the newborn reflects the transition and development of a complex immune system. Cytokines and chemokines contribute to this dynamic immune signaling network and can be altered by many factors, such as infection. To characterize immune ontogeny among healthy full-term newborns, we assessed plasma cytokine and chemokine concentrations across the first week of life in a robust longitudinal cohort of healthy, full-term African newborns.

Methods: We analyzed a subgroup of a cohort of healthy newborns at the Medical Research Council Unit in The Gambia (West Africa; N= 608). Peripheral blood plasma was collected from all study participants at birth (day of life (DOL) 0) and at one follow-up time point at DOL 1, 3, or 7. Plasma cytokine and chemokine concentrations were measured by bead-based cytokine multiplex assay. Unsupervised clustering was used to identify patterns in plasma cytokine and chemokine ontogeny during early life.

Results: We observed an increase across the first week of life in plasma Th1 cytokines such as IFN γ and CXCL10 and a decrease in Th2 and anti-inflammatory cytokines such as IL-6 and IL-10, and chemokines such as CXCL8. In contrast, other cytokines and chemokines (e.g. IL-4 and CCL5, respectively) remained unchanged during the first week of life. This robust ontogenic pattern did not appear to be affected by gestational age or sex.

Conclusions: Ontogeny is a strong driver of newborn plasma-based levels of cytokines and chemokines throughout the first week of life with a rising IFN γ axis suggesting post-natal upregulation of host defense pathways. Our study will prove useful to the design and interpretation of future studies aimed at understanding the neonatal immune system with potential to inform vaccine development.

ID:186

Topic: *AS03 Vaccines / 3.5 Vaccine delivery*

COVID-19 VACCINE ACCESS IN WEST AFRICA: MAKING A CASE FOR LOCAL MANUFACTURING OF ESSENTIAL MEDICINES AND VACCINES

I. Banaru Abubakar¹, H. Banaru²

¹*Ahmadu Bello University Teaching Hospital, Family Medicine, Zaria, Nigeria,* ²*Abubakar Tafawa Balewa University Teaching Hospital, Family Medicine, Bauchi, Nigeria*

Background: Vaccines are key to ending the COVID-19 pandemic. The world is facing inequitable distribution of COVID-19 vaccines, this very low access to vaccines exposes countries in West Africa to the devastating spread of the virus. The pandemic has re-echoed the need for domestic pharmaceutical manufacturing with a growing consensus that local manufacturing is imperative for vaccine equity.

Methods: A systematic literature search in PUBMED and Google Scholar for English language peer-reviewed articles related to COVID-19 vaccine access was done. In addition to the peer-reviewed publications, given the need to capture evolving evidence, working papers, statements of reputable agencies, and news articles were also considered.

Results: While developed countries are reporting over 50% vaccination rates among eligible populations, West Africa is left behind due to access inequalities. Only about 2.3% of the target population received the full dose of the COVID-19 vaccine in Nigeria since the initial phase. Other countries in West Africa are reporting 1% and below. Poor access to essential medical consumables occasioned by the pandemic has spurred pharmaceutical manufacturing efforts in West Africa. West Africa has a large vaccines market with low production capacity. There are still long steps West African countries would need in order to be prepared for local manufacturing. Aside from 'form to finish' manufacturing, there are other models West African countries could adapt to leapfrog in the production process, such as the 'backward integration' that involves 'filling and packaging vaccine vials as gradual progress to production.

Conclusions: We cannot predict an end to the pandemic without vaccine equity. To achieve vaccine equity, there is a need for a domestic manufacturing capacity of vaccines and medicines. Five key thematic areas are suggested as enablers of domestic production; agenda setting and political will; financing and; enhancing regulatory capacity; demand and supply security; and technical skilling.

ID:104

Topic: *AS03 Vaccines / 3.2 Pre-clinical and laboratory/immunology studies*

BIOINFORMATICS: CHARACTERIZING THE Z-PROTEIN AND UNDERSTANDING ITS CONTRIBUTION TO DISEASE SEVERITY AND FATALITY IN LASSA VIRUS INFECTION

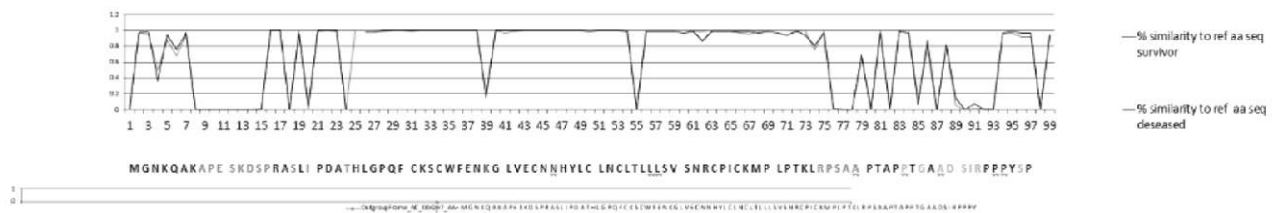
E.P. Chukwuka¹, E. Brodsky², M. Mazumder³

¹*Ministry of Health, Laboratory Department / transfusion Medicine Unit, Al Mubarak, Saudi Arabia,* ²*Pine Biotech, Applied Analytics, Greater New Orleans, United States of America,* ³*Pine Biotech, Applied Analytics, Kolkata, India*

Background: Lassa virus (LASV) a member of the Old-World Arenavirus family, causes a zoonotic infection; viral hemorrhagic fever. Increased viremic load and suppression of host immune response have been implicated as proponents of disease severity and fatality. The virus consists of two single-stranded RNA species designated small (S) and large (L) segments. Each segment consists of two non-overlapping genes arranged in an ambisense orientation. The L RNA encodes for viral polymerase (L protein) and the Z protein. The Z protein is a 99 amino acid long protein and has features characteristic of a budding protein and is pathogenetically vital for this virus infectivity. This study hoped to identify intrinsic characteristics associated with this protein that may contribute to disease severity or fatality.

Methods: The study looked at publicly available datasets deposited in the National Center for Biotechnology Information (NCBI) virus database from a publication (doi:10.3390/v12040437) and selected a total of 117 L segments nucleotide sequences of the Lassa virus genome from 60 survivors and 57 deceased individuals. Subsequently, FASTA amino acid sequences of the Z-protein of these nucleotides were selected for downstream analysis. Multiple sequences alignment and phylogenetic analysis were performed and similarities between these groups of sequences were assessed.

SIMILARITY CURVE OF AMINO ACID SEQUENCE TO REFERENCE Z PROTEIN



Both the amino acid sequences of the survivors and deceased run similar patterns when compared to the reference sequence, however two changes observed at the amino acid sequence 39 K > R and 55 T > S are noteworthy since they occur within the zinc finger domain these changes are highlighted in red.

Results: Several changes were observed within the Z-protein at the primary sequence level when compared to the reference Z-protein; between amino acid sequences 8-15; 76-80 and 85-93, and within the zinc-finger domain at amino acid sequences 39 and 55. The consensus sequences from both the survivors and the deceased were similar.

Conclusions: Though no significant intrinsic changes were observed when sequences from survivors were compared with the deceased individual, it is worth noting that both have important changes when compared with the reference Z-protein. The implication of these changes at the tertiary and quaternary levels and on viral-host interaction has not been fully studied.

ID:271

Topic: AS03 Vaccines / 3.3 Clinical trials, impact studies and vaccine epidemiology

THE HANDS TRIAL - UNDERSTANDING HPV VACCINE IMMUNOGENICITY FOR OPTIMISED DOSE SCHEDULES

E. Kiamba

MRC Unit The Gambia at LSHTM, Vaccine And Immunity Theme, Banjul, Gambia

Background: Cervical cancer is universally associated with HPV infection. It is the 1st or 2nd most common cancer affecting women in sub-Saharan Africa where it is generally associated with high mortality. Human papillomavirus (HPV) vaccines have been shown to be highly efficacious at preventing new HPV infections and hence cancer.

Methods: An increasing amount of data also suggest they may provide long term protection, even after a single vaccine dose. However, HPV vaccines have only been introduced in around 30% of countries in sub-Saharan Africa and programme sustainability following introduction is a further concern. Exploring alternative vaccination schedules, including single dose regimen and the vaccination of females before 9 years of age may facilitate vaccine introduction. This study, nested within the HANDS HPV Vaccine Trial (NCT03832049) is exploring the cellular immune responses generated by a first and second dose of an HPV vaccine in 4- to 8-year-old and 9- to 14-year-old females in The Gambia. Fluorospot and ELISpot assays have been used to identify HPV-specific plasma cells and memory B-cells respectively.

Results: We have identified both populations in the circulation over the first month following vaccination with Gardasil 9 HPV vaccine. Using flow-cytometry we have identified T-follicular helper cells – responsible for supporting the establishment of memory B-cells, activated by HPV following vaccination.

Conclusions: The early data provide understanding of the cellular mechanisms underlying the long-term protection generated by HPV vaccines.

ID:179

*Topic: AS04 Mental health / 4.2 Child and adolescent mental health***PROBLEMATIC SMART PHONE USE AND ADDICTION AMONG UNIVERSITY UNDERGRADUATES IN ILORIN NIGERIA – A PILOT STUDY**J.A. Ogunmodede¹, A.J. Ogunmodede², A.H. Bello³, O. Buhari⁴¹University Of Ilorin, Medicine, Ilorin, Nigeria, ²University Of Ilorin Yeaching Hospital, Psychiatry, Ilorin, Nigeria, ³University Of Ilorin Teaching Hospital, Medicine, Ilorin, Nigeria, ⁴University Of Ilorin Teaching Hospital, Psychiatry, Ilorin, Nigeria

Background: Smartphone use has increased at an increased pace across all age and socio-economic strata of the society worldwide. Smartphone addiction is an emerging but understudied public health issue. Little is known about its epidemiology, especially among young people. Teenagers and young people are an important target market for smartphones hence for university undergraduates, who mostly fall into this category, smartphone use is a big issue both from academic, social, psychological and behavioural standpoints. The phone is useful as an indispensable learning aid, but smartphones have also become a focal object influencing social, psychological and behavioural aspects of the lives of students.

Methods: 242 undergraduate students of the University of Ilorin were selected by systematic random sampling in a pilot study and asked to fill a socio-demographic questionnaire and the Smartphone Addiction Scale-Short Version (SAS-SV).

Results: The mean age of participants was 21.28±2.14years, 96.7% of the respondents owned a smartphone and 95.5% admitted accessing social media on their phones. Using normative SAS-SV score cut-offs of 31 in males and 33 in females, 29.1% of the students were addicted to their smartphones, 32.1% of males and 28% in females. The mean SAS-SV score was 28.52±9.86.

The smartphone addiction score correlated positively with the number of hours spent on the phone daily, the age of the students correlated negatively with the number of hours spent on the phone daily. Smartphone addiction was not associated with gender, students' academic performance Cumulative Grade Point Average or level of study.

Conclusions: Smartphone addiction is an important problem among university undergraduates. Younger students are more likely to spend longer hours on their phone, and have increased likelihood of addiction. It is important to introduce behavioural modification measures early into the school curriculum to prevent potential hazards to students in the course of their study.

ID:174

*Topic: AS04 Mental health / 4.2 Child and adolescent mental health***FACTORS THAT PUSH CHILDREN TO THE STREETS, A STUDY OF CHILDREN IN VOLATILE AREAS**H. Audu*Karu Hospital FCTA, Behavioural Medicine Unit, FCTA, Nigeria*

Background: The phenomenon of street children is global, alarming and escalating. No country and virtually no city anywhere in the world today are without the presence of street children. It is a problem of both developed and developing countries, but is more prevalent in the poor nations of Latin America, Asia and Africa, a concern expressed by the African Network of the International Society for the Prevention of Child Abuse and Neglect.

Methods: This study investigated the street children in Maiduguri the Borno state capital, of Nigeria, the Epi center of the Boko Haram insurgency, it is a descriptive and community study of children aged 6-14 years, using the socio-demographic questionnaire and questionnaire for street children.

Results: A total of 231 respondents were obtained out of 240, representing 96% response rate. The sex ratio (M: F) was 16:1, 96% male and 6% females indicating male preponderance, with mean age of 10.6 and SD of (± 2.36). Sixty percent (60%) are Almajiris (Islamic pupils), twenty-two percent (22%) of the children go to western schools and the remaining eighteen percent do not go to any form of education at all. Parents of 96% (ninety six percent) of the Almajiris have Islamic education, and they are mostly traders and farmers, with none having advanced level of western education, this was significant at P value of (0.00 and df8). Parent's occupational status was related to the child's educational status and wellbeing; this is significant at P value of (0.00 and df6).

Conclusions: Poor parental education and occupational status (poverty) are the main factors associated with sending children into this practice, although this has been the practice in many northern Nigerian cultures, the phenomenon is becoming worse because of the rising level of poverty.

ID:149

Topic: *AS04 Mental health / 4.4 Recovery and rehabilitation*

EMOTIONAL AND PSYCHOSOCIAL RESPONSES TO THE CORONA VIRUS DISEASE (COVID-19) OUTBREAK IN NIGERIA: (EPCOVIN STUDY)

O. Olugbade¹, O. Ayinde², O. Pinheiro³, A. Faloye⁴, O. Fajobi⁵, O. Abdulmalik⁶, H. Abdurahman⁷, J. Abdulmalik⁸
¹*Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC), Department Of Community Health, Ile Ife, Nigeria,*
²*University of Ibadan, Department Of Psychiatry, Ibadan, Nigeria,* ³*Pinpoynt Health Solutions, Health Communications And Research, Ibadan, Nigeria,* ⁴*University College Hospital, Department Of Psychiatry, Ibadan, Nigeria,* ⁵*Obafemi Awolowo University Teaching Hospitals Complex, Department Of Community Health, Ile Ife, Nigeria,* ⁶*Asivuri Consulting, Health Research, Ibadan, Nigeria,* ⁷*University College Hospital, Department Of Child And Adolescent Psychiatry, Ibadan, Nigeria,* ⁸*Asido Foundation, Health Research, Ibadan, Nigeria*

Background: The Corona Virus Disease (COVID-19) continues to affect individuals, their relatives and healthcare professionals in sub-Saharan Africa. Availability of epidemiological data in response to the mental health challenges during the outbreak is limited. The objective of the study was to determine knowledge and information about the COVID-19 outbreak, assess the emotional reactions amidst the population in Nigeria, and identify the emotional and psychological responses associated with the outbreak.

Methods: An online survey using selected social media platforms among media users living in Nigeria from ages 18 years and above was conducted. The General Health Questionnaire (GHQ-12) was used to ascertain extent of psychological distress, the Hospital Anxiety and Depression Scale (HADS) screened for anxiety and depressive symptoms in response to COVID-19.

Results: A total of 1082 responses were recorded using an electronic questionnaire, with most respondents accessing and responding through WhatsApp (73.4%). The 20-29 (34.6%) and 30-39 (34.0%) years' age groups had the highest number of respondents. More respondents are male (50.3%), majority (53.5%) were skilled professionals and 312 (28.8%) are health workers. All of the respondents (100%) were aware of COVID-19 most of them (88.5%) from social media. The commonest emotions expressed were hope (55.9%), anxiety (45.9%), fear (42.9%), and panic (19.2%). One in four persons (27.5%) experienced psychological distress, and one in six (16.5%) experienced depression and generalized anxiety disorder. Respondents who are health workers were found to have better knowledge of COVID-19 prevention interventions [$X^2 = 12.69$, $p < 0.05$]. Being less than 40 years old was found to be an independent predictor of psychological distress, generalized anxiety disorders, and negative coping habits among respondents ($p < 0.05$).

Conclusions: A detailed mental health response plan for citizens and community members focused on mental-health counselling and building resilience in young persons should be prioritized and implemented by the national COVID-19 response coordinating agencies in Nigeria.

ID:121

Topic: *AS04 Mental health / 4.2 Child and adolescent mental health*

HEALTH-RELATED QUALITY OF LIFE AMONG HIV-INFECTED CHILDREN AND ITS ASSOCIATION WITH CAREGIVERS' BURDEN, SOCIO-DEMOGRAPHIC, CLINICAL AND NUTRITIONAL VARIABLES: A COMPARATIVE APPROACH

C. Ogbonna-Nwosu¹, K. Iloh², N. Ibeziako², N. Onyire¹, J. Onu³, I. Nwosu⁴

¹*Alex Ekwueme Federal University Teaching Hospital, Abakaliki, Department Of Paediatrics, Abakaliki, Nigeria,* ²*University of Nigeria Teaching Hospital, Department Of Paediatrics, Enugu, Nigeria,* ³*Nnamdi Azikiwe University, Department Of Mental Health, Awka, Nigeria,* ⁴*Maimonides Medical Center, Department Of Internal Medicine, Brooklyn, United States of America*

Background: The Human Immunodeficiency Virus (HIV) infection and its treatment impact the child's life as well as those of their caregivers. As therapeutic advances are made in the field, treatment outcome measures become diverse, from morbidity and mortality to health-related quality of life (HRQoL). This study aimed to compare the HRQoL of children living with HIV (CLHIV) with a healthy control group (CG) and highlights its relationship with caregivers' burden (CB), socio-demographic, clinical, and nutritional variables.

Methods: This was a cross-sectional comparative study involving 274 participants (137 per group) from tertiary and secondary health facilities in Nigeria. The HRQoL was measured using the Paediatrics Quality of Life Inventory (PedsQL 4.0), CB was measured with the Zarit Burden Interview (ZBI). Socio-demographic, clinical, and nutritional variables were obtained using a researcher-designed data collection sheet. Comparison of the HRQoL was done using independent t-test and effect size calculated for the significant associations. The predictors of the HRQoL were measured using multivariate stepwise linear regression analysis.

Results: The overall and domain-specific HRQoL of CLHIV and those of CG were similar when factors such as CB, disease severity, socio-economic, orphan, and nutritional status were controlled. For CLHIV, being from upper social class ($p = 0.01$, $R^2 = 0.098$), male gender ($p = 0.005$, $R^2 = 0.063$), higher scores in the ZBI[CON1] ($p = 0.009$, $R^2 = 0.150$) and more disease severity ($p < 0.001$, $R^2 = 0.321$) were significant predictors of lower HRQoL.

Conclusions: The findings of this study give clinicians some optimism that with adequate treatment, CLHIV will have better treatment outcomes not only in mortality but in psychosocial variables such as HRQoL. In addition, the finding on the relationship between CB and HRQoL underscores the need to focus on family-based interventions to improve the CB of family members involved in the care of CLHIV.

EPIDEMIC AND PANDEMIC HEALTH CARE

TRACK 5

ID:151

Topic: *AS05 Epidemic and Pandemic health care / 5.4 Community engagement in epidemic/pandemic situations*

FACTORS ASSOCIATED WITH REMISSION DURING MEDICAL TREATMENT FOR GRAVES' DISEASE

D. Diédhiou¹, I.M. Diallo¹, M.A. Ndour², S. Djiby², G. Fatou Kine², E.M. Thioye², N.M. Ndour², A. Sarr²
¹*Cheikh Anta Diop University, Medecine, Dakar, Senegal,* ²*Cheikh Anta Diop University, Medicine, Dakar, Senegal*

Background: Graves' disease is an autoimmune hyperthyroidism, responding well to medical treatment with synthetic antithyroid drugs (TSA) in Senegal. Recently, the GREAT Score has been proposed to predict the risk of relapse. The objective was to determine the factors associated with remission in patients undergoing treatment.

Methods: This was a retrospective, descriptive and analytical study conducted from January 1, 2010 to December 31, 2019 at Medical Clinic II of Abass Ndao Hospital Center. The parameters evaluated were epidemiological, clinical and evolutionary.

Results: Among the 1355 patients, the sex ratio was 0.2 and the mean age was 31.72 ± 13 years. A triggering factor was

found in 48.49%. The average consultation time was 20.70 months. Goiter was found in 92.39% and exophthalmos in 70.11% of cases. The mean level of free T4 at diagnosis was 67.86 ± 33 pmol / L. The mean starting dose of ATS was 37 mg / day and the mean time to start a maintenance dose was 3.6 months. At the end of the follow-up, 65.9% were in treatment failure, 25.54% in lasting remission and 8.63% in relapse. The operated patients represented 26.12% of the cases. In multivariate analysis, the lower intensity of thyrotoxicosis (OR = 0.66 [0.49 - 0.89]), low starting dose of ATS (OR = 0.52 [0.32 - 0.85]), early maintenance treatment before 6 months (OR = 1.51 [1.08 - 2.13]) were statistically associated with lasting remission.

Conclusions: Graves' disease remains frequent with a clinical profile similar to the data in the literature. The initial level of free T4 and the precocity of the therapeutic response are indicators of probable remission.

ID:165

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*
CLINICAL PATTERN OF COVID-19 HOSPITALIZATION DURING THE THIRD WAVE AT THE JOHN F. KENNEDY MEDICAL CENTER IN MONROVIA, LIBERIA: IMPLICATIONS FOR MANAGEMENT OF FUTURE WAVES

M.A. Abdullahi^{1,2}, Y. Barclay-Korboi², P.N. Gweh², M. Kanneh², L. Yankae², I. Wachekwa², M. Adeiza^{1,2,3}, J. Bartekwa², F. Dickson²

¹Ahmadu Bello University Teaching Hospital, Department Of Internal Medicine, Shika-Zaria, Nigeria, ²John F. Kenneday Medical Centre, Department Of Internal Medicine, Monrovia, Liberia, ³Yale School of Medicine, Office Of Global Health, Internal Medicine Department, New Haven, United States of America

Background: The COVID-19 pandemic continues to ravage the world threatening already fragile health systems in developing countries. Since detection of the first case in March 2020, Liberia has had 3 waves. The National strategy was to centralize care at COVID-19 treatment units in the counties but during the third wave from June to July 2021, the treatment unit in Monrovia was overwhelmed with spillage of patients into facilities. This study was conducted to describe the clinical pattern of COVID-19 hospitalizations at the JFK Medical Centre (JFKMC), Monrovia during the third wave.

Methods: A retrospective study was conducted at JFKMC using records of patients admitted with diagnosis of COVID-19 by RTPCR of nasopharyngeal swabs during the study period. Those who met the case definition were included in the study.

Results: A total of 102 patients were screened with 62(60.8%) positive for COVID-19. Of these, 37 (59.7%) were males with mean age of 55.9 ± 14.6 (range: 16-83 years). Majority (51.6%) of patients were aged 41-60 years. Hypertension, diabetes, HIV and sickle cell disease were major co-morbidities seen (38.7%). Eighteen (29%) patients were elderly, >65 years while 60 (96.8%) were unvaccinated. Shortness of breath and body weakness each occurred in 35(56.5%) of the patients, fever in 31 (50%), and cough in (28) 45.2%. Median duration of symptoms pre-hospitalization was 4 days (range: 1-21 days). While 46.8% of the patients had $SP_{O_2} < 90\%$, only 9.7% had respiratory rate >30 cycles/minute. Majority (64.5%) of patients were discharged, 29% were transferred to the treatment unit and 6.5% died. Major challenges were unavailability of bed space and oxygen supply.

Conclusions: The burden of COVID-19 hospitalizations at JFKMC was high in middle aged patients, with hypertension the most common co-morbidity. Most were unvaccinated and majority had silent hypoxia with 6.5% mortality. Institutional case management capacity should be strengthened in preparation for future waves.

ID:202

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

**CLINICAL PRESENTATION AND PROGRESSION OF NON SEVERE COVID-19 PATIENTS
RECRUITED IN A RANDOMIZED TRIAL IN THE GAMBIA**

J.C. Jones¹, M. Grey-Johnson², A. Gai², C. Sarr², F. Sillah², N. Mohammed³, B. Dibba², A. Bah², C. Roberts⁴, M. Bittaye⁵, B. Nadjm⁶, U. D'Alessandro², A. Roca^{2,3}, E. Usuf^{2,3}

¹*Medical Research Council The Gambia Unit at LSHTM, Disease Control Elimination Theme, Banjul, Gambia,*

²*MRCG@LSHTM, Disease Control And Elimination, Banjul, Gambia,* ³*Atlantic Boulevard, Fajara, Dce, Banjul, Gambia,*

⁴*EFSTH, Surgery, Banjul, Gambia,* ⁵*MOHSW, Mohsw, Banjul, Gambia,* ⁶*MRC Unit The Gambia at LSHTM, Clinical Services Department, Fajara, Gambia*

Background: Most SARS-CoV-2 (COVID-19) infections are mild to moderate, however a subset of patients progress to severe disease. Improved understanding of clinical progression of COVID-19 patients in our setting could inform strategic response.

Methods: This is a single-blind phase three individually randomized trial*. Consenting individuals aged above 5 years with mild or moderate COVID-19 disease at two trial surveillance sites are screened, tested for SARS-CoV-2 and randomized if positive. Confirmed cases from the National testing services are also randomized if they consent. The proportion of patients with different clinical symptoms at presentation and with comorbidities are described. Participants were monitored daily for progression, defined as deterioration from mild to moderate or severe, and from moderate to severe. Severity was defined according to WHO guidelines. Follow up samples (OPS/NPS for RT PCR) are collected at day 4 and 14 to evaluate clearance of viral RNA. As the trial is ongoing, only aggregated data is presented.

Results: We enrolled 145 SARS-CoV-2 confirmed individuals with mild/moderate disease between January and August 2021, with mean age 43.6 years and 48.3% male. (65.9%) of participants progressed during the 14 day follow-up, although only 5 (3.3%) progressed into severe-pneumonia and 2 of them died. Cough 124 (85.5%), fever 97 (66.9%), headache 77 (53.1%) and loss of taste 55 (37%) were the most common initial symptoms at screening. Co-morbidities among recruited patients was high; 22.8% being hypertensive and 11.7% diabetic. Approximately 1 in 5 individuals had cleared the virus by day 4 and 2 out of 3 by day 14.

Conclusions: Although prevalence of co-morbidities was high among study patients, progression to severe disease was relatively low. Further analysis of risk factors for progression are warranted. Viral RNA remained detectable at day 14 for an important number of patients.

ID:204

Topic: *AS05 Epidemic and Pandemic health care / 5.2 Healthcare system preparedness and response*

**TB-RELATED MORTALITY BENCHMARK FOR TB CARE IN THE GAMBIA, WEST AFRICA: A
COHORT ANALYSIS**

O. Owolabi¹, A. Wurrie², R. Jallow¹, K. Kanyi¹, S. Donkor¹, A. Jobe¹, M. Genekah¹

¹*Medical Research Council Gambia @ London School of Hygiene and Tropical Medicine, Vaccine And Immunity, Banjul, Gambia,* ²*National Tuberculosis and Leprosy control program, Tuberculosis Control, Banjul, Gambia*

Background: TB zero mortality has been advocated by the Stop-TB and other International partners involved in the control of TB globally. We assessed predictors of TB related mortality in TB endemic setting as a benchmark for evaluation of current TB care, the past to inform the present in achieving zero TB related death in TB endemic region of the World in drug sensitive TB patients

Methods: Retrospective cohort study of TB notification registers from public health clinics with the highest TB case load in the Greater Banjul Area of The Gambia from January 2012 to December 2015. Univariate and backward stepwise multivariable logistic regression analysis were used to investigate factors associated with TB mortality as a benchmark to assess impact of possible improvement in TB care.

Results: We analysed 242 adolescents, 294 young adults, and 552 adults TB patients. Seventy-nine (7.3%) died during treatment. Adults had almost thrice the risk of death over adolescents and youths (RR 2.7, 95% CI 1.4- 5.4, p= 0.04). This risk increased in HIV-infected adults to six times over uninfected TB patients (OR 6.2, 95% CI 3.8- 9.9), p= 0.0001. Smear negative TB patients had almost five times chance of death (OR 4.9, 95% CI 3.1- 8.0, p= 0.0001) than smear positive TB patients

Conclusions: Adults treated for TB had greater risk of death than adolescents and younger adults, particularly in the setting of TB-HIV coinfection and smear negative TB. Efforts are needed to improve TB diagnosis and treatment in adults in TB endemic regions as we strive to achieve zero global TB-related mortality. However, the findings are essential to evaluate the current situation of quality of TB care in The Gambia.

ID:20

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*
POST MORTEM TESTING FOR SARS- COV-2 AND CAUSES OF DEATH IN A TERTIARY HOSPITAL DURING THE COVID-19 PANDEMIC

S. Attoh¹, E. Asumanu², R. Fatchu¹

¹37 Military Hospital, Anatomical Pathology, Accra, Ghana, ²37 MILITARY HOSPITAL, Postgraduate Unit, ACCRA, Ghana

Background: Post mortem testing has not been part of routine surveillance for SARS –CoV-2 in Ghana. The low number of covid 19 deaths reported compared to advanced countries does not account for other causes of deaths therefore the impact of the disease seems to be vastly underestimated. The study evaluates the presence of SARS- CoV-2 and causes of death in bodies at a tertiary hospital an expanded surveillance period

Methods: The deceased bodies were selected prospectively during an expanded surveillance period A prospective cross-sectional design was employed from 4th May to 27th May 2020. The methodology involved 3 phases: 1. Collection of samples for SARS- Cov-2 testing. 2. Autopsy of cases 3. Determination of underlying cause of death for all cases. Bodies of patients less than one year old, bodies yet to be identified and patients diagnosed as covid-19 positive antemortem were excluded.

Results: A total of 161 cases were analysed with 53 autopsies conducted. The overall positive test rate for SARS-CoV- 2 was 14.9% with a positive rate of 5.0% and 30.2% for nasopharyngeal and bronchopulmonary swabs respectively. The underlying causes of death were categorized into a proposed three tier group: Non-SARS-CoV-2 related (85.1%), SARS-CoV-2 associated (12.4%) and SARS-CoV-2 induced or COVID- 19 (2.5%). Cases were analysed in relation to death with associated positive SARS -CoV -2 and the presence of underlying chronic medical condition. Cardiovascular related complications formed the most common cause of death in patients with or without SARS- Cov-2

Conclusions: The study concludes that there was a high positive rate of SARS -CoV-2 in postmortem cases but majority of deaths are attributable to non-SARS-Cov-2 pathologies mostly hypertension and its related complications

ID:157

Topic: AS06 Other - Antimicrobial resistance

DEVELOPING A SET OF GUIDELINES TO SUPPORT CLINICAL EXCELLENCE IN A HOSPITAL IN THE GAMBIAF. Mosler¹, O. Agboghoroma², M. Sanyang³, B. Abatan², F. Akemokwe², B. Awokola², B. Nadjm², B. Susso², K. Forrest²¹University of Edinburgh, Edinburgh Medical School, Edinburgh, United Kingdom, ²MRC Unit The Gambia at LSHTM, Clinical Services Department, Fajara, Gambia, ³MRC Unit The Gambia at LSHTM, Data Management, Fajara, Gambia

Background: Clinical guidelines enable the practical application of evidence-based medicine and improve quality of care. However, their implementation and use in resource-strained health systems is low. The Clinical Services Department (CSD) at Medical Research Council (MRC) Unit The Gambia is a health centre that provides internal medicine and paediatric services to urban and rural populations. In this paper we share the successful implementation of our own set of guidelines. Using interview and audit data we provide evidence that the guidelines were well perceived by staff and improved quality of care.

Methods: Guidelines were drafted by medical officers using locally-adapted international guidelines over a period of 5 years. Every guideline was reviewed by medical consultants, disseminated through team training and regularly updated. A locally-developed mobile app allowed rapid integration of new guidelines and easy accessibility, with over-the-air updates using open-source technologies. 92 guidelines were produced with the app being downloaded 119 times. We tested guideline perception by conducting semi-structured interviews with 14 randomly-chosen staff. Interviews were transcribed, coded and analysed via thematic analysis. Their impact on quality of care was measured by audits. One example reviewed thyroid disease management in 478 patients pre- and post-guideline implementation.

Results: Interview data revealed staff strongly believed guidelines were useful and improved quality of care. However, adherence amongst enrolled nurses was limited compared to other cadres. Audit data showed an increase from 21.5% to 37.2% of patients receiving appropriate thyroid disease investigation after guideline implementation.

Conclusions: The CSD guidelines demonstrate the feasibility of developing and disseminating locally relevant guidance in a resource-limited context. Our data reveals that they have been well-perceived by staff and can improve care. Additionally, they provide a standard and create a culture of self-appraisal and constant learning, which are essential to achieving clinical excellence. We believe they can be used in other, similar settings.

ID:118

Topic: AS06 Other - Antimicrobial resistance

PATTERN OF DRUG RESISTANT TUBERCULOSIS IN KADUNA STATE, NORTHWESTERN NIGERIAA. Oyefabi^{1,2}, A. Soter³, C. Tobin- West⁴, J. Gajere⁵, E. Leshak⁶, C. Adesigbin⁷¹Kaduna State University, Department Of Community Medicine, Kaduna, Nigeria, ²University of Port Harcourt, School Of Public Health, Port Harcourt, Nigeria, ³University of Calabar Cross River State, Nigeria, Department Of Community Medicine, Calabar, Nigeria, ⁴University of Port Harcourt, Department Of Preventive And Social Medicine, Port Harcourt, Nigeria, ⁵Kaduna State Ministry of Health, Tuberculosis Control Program Unit, Kaduna, Nigeria, ⁶University Of Leeds, Faculty Of Medicine And Health, Nuffield Centre For International Health And Development, Leeds, United Kingdom, ⁷Federal Ministry of Health, Department Of Public Health, Abuja, Nigeria

Background: Drug-resistant tuberculosis (DR-TB) occurs when mycobacterium bacteria are resistant to at least one of the first-line anti-tuberculosis drugs. The emergence of multi-drug resistance tuberculosis (MDR TB) and extensively drug-resistant TB (XDR TB) is posing a serious threat to the tuberculosis control program in resource-limited countries

Methods: The study was a retrospective review of the treatment records of 180 DR-TB patients who had drug sensitivity test via a line probe for the DR -TB isolates between May 2012- January 2021 and were managed by the Kaduna State TB program. Data was analyzed using the IBM SPSS Version 25.0 and STATA/SE 13. Statistical significance was set at $p < 0.05$.

Results: The mean age of the patients was 34.26 ± 12.63 . One hundred and thirty (71.2%) were males, while 50 (27.8%) were females. Eighty-two (45.6%) had MDR-TB. Mono-resistant TB was found among 61 (33.9%) of the patients, out of which 55 (30.6%) had both rifampicin resistance, and Isoniazid resistance, 3 (1.7%). The non-tuberculous mycobacterium (NTM-TB) was 26 (14.4%), while eleven (6.1%) had pre-extensively drug-resistant TB (pre-XDR TB). The cure rate was 92 (51.1%). Seventeen patients (9.4%) died, and majority of them died from MDR TB 8 (47%), others were pre-XDR TB 3 (17.7%) and NTM-TB; 3 (17.7%). Older age (>40 years) was significantly associated with increased mortality ($p = 0.02$, $\chi^2 = 13.1$).

Conclusions: Majority of the patients had MDR TB and higher mortality occurred among older patients. There is need for the TB and DR-TB prevention and control efforts to pay special attention on the older age groups.

ID:125

Topic: *AS06 Other - Antimicrobial resistance*

MATERNAL AND NEONATAL FACTORS ASSOCIATED WITH CEREBRAL PALSY: A CASE CONTROL STUDY IN THE CENTRAL REGION OF GHANA

I. Adomako¹, A. Danso-Appiah²

¹University of Ghana Medical School, Community Health, Accra, Ghana, ²University of Ghana, Epidemiology, ACCRA, Ghana

Background: Cerebral Palsy (CP) refers to multiple, non-progressive, heterogeneous group of syndromes of posture and motor development. It is the most common cause of motor disability in children, with a global prevalence of two to three per 1000 live births. This prevalence is highest in developing countries, constituting a huge social and economic burden to families and the health system. Maternal and neonatal factors account for over 90% of all causes of Cerebral Palsy in developing countries. This study sought to determine the maternal and neonatal factors associated with Cerebral palsy at the Salvation Army Rehabilitation centre in the central region of Ghana.

Methods: The study used a case-control design, with cases defined as children less than five years, born Singleton with clinically confirmed CP by a Paediatrician, Neurologist or any experienced clinician. Controls were children less than five years who attended the same health facility with other conditions other than CP. A pretested questionnaire was administered to mothers to obtain information on socio-demographic as well as maternal and neonatal factors associated with CP. The study was conducted at the Salvation Army Hospital and Rehabilitation centre, a major referral rehabilitation center in Ghana.

Results: After adjusting for key variables considered in this study, nine factors were significantly associated with CP. These were: late menarche (adjusted Odds Ratio, aOR, OR=0.01, 95% CI: 0.002 to 0.84); multiparity (aOR=0.47, 95% CI: 0.23 to 0.93); good ANC attendance (aOR=0.6, 95% CI: 0.06 to 0.96), constituting maternal factors. Significant neonatal factors included: Birth asphyxia (aOR=20.56, 95% CI: 3.50 to 120.33); neonatal jaundice (aOR=16.30, 95% CI: 1.66 to 70.88), neonatal seizures (aOR=29.00, 95% CI: 1.55 to 55.67) and neonatal admissions with an adjusted Odds Ratio of 7.32 (95% CI: 1.60 to 33.41).

Conclusions: The study identified three main neonatal factors: seizures, jaundice and birth asphyxia as significantly associated with CP. Late menarche, good ANC attendance and multiparity were significant protective maternal factors against CP.

ID:90

Topic: *AS06 Other - Antimicrobial resistance*

FIBROELASTROGRAPHY IN PATIENTS WITH HEPATOCELLULAR CARCINOMA IN THE GAMBIA

S.O. Bittaye, R. Njie

University of The Gambia, School Of Medicine And Allied Health Sciences, Kanifing, Gambia

Background: Little is known about the use of fibroelastography in the assessment of prognosis in patients with hepatocellular carcinoma (HCC) in The Gambia. We therefore assess the prognosis of HCC patients with increased fibroelastography score in The Gambia.

Methods: Suspected HCC who were referred to the main liver clinic at the Medical Research Council, Gambia Unit (MRCG) were recruited from June 2011 to September 2019. Clinical, radiological, fibroelastography and laboratory data were collected in all patients. Kaplan -Meier, univariate and multivariate cox regression analyses were used to assess factors related to survival in these patients.

Results: Four hundred and thirty five patients were recruited into the study. The median fibroelastography score was 73.5kpa. Two hundred and thirteen patients had fibroelastography score of 75kpa. These patients were much younger and more likely to have constitutional symptoms, gastrointestinal signs and symptoms as compared to those patients with <75kpa score. They were also more likely to have raised liver enzymes, positive HBsAg, raised White blood cell (WBC) count and hyponatremia. The performance status, Child-Pugh and BCLC stages were also worst amongst patients with fibroelastography score of 75 kpa. Patients with fibroelastography score of <75kpa were much older and had a better median survival (57 days vs 32.5 days, p value: <0.001). There was also a positive correlation between fibroelastography score and spleen size (R=0.20, p value< 0.001). Independent factors that affect survival in patients with fibroelastography score of 75kpa were Child Pugh stage C, WBC count > 11 x 10⁹/l and total bilirubin level >25umol/l.

Conclusions: Patients with fibroelastography score of 75 kpa were mostly young patients with positive HBsAg. They were also more likely to be symptomatic with a shorter median survival time. Fibroelastography can be used to determine the prognosis of patients with hepatocellular carcinoma in The Gambia.



POSTER PRESENTATIONS

UNIVERSAL HEALTH CARE

TRACK 1

ID:21

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

CHALLENGES IN PURSUIT OF ISO15189 ACCREDITATION- A CASE OF THE 37 MILITARY HOSPITAL PATHOLOGY DIVISION

S. Attoh, R. Fatchu, M. Mcaddy

37 MILITARY HOSPITAL, Anatomical Pathology, ACCRA, Ghana

Background: Internationally recognized accreditation is relevant to all medical laboratories including public health laboratories in developing countries. Several laboratories in Ghana are known to have implemented the requirements of ISO 15189 but are unable to proceed with the accreditation.

Objective: To describe the challenges of accreditation acquisition of the first public sector Medical Laboratory in Ghana and provide suggested solutions for the identified challenges

Methods: An online survey was conducted among staff of the Pathology Division-Laboratory of the 37 Military Hospital. Respondents were required to grade, on a scale of 0 (least challenging) to 5 (most challenging) the extent to which 16 key challenges influenced the process of accreditation acquisition. Key informant interviews were also held with personnel who were directly involved in the establishment of the quality management system and the accreditation acquisition process of the laboratory

Results: Excessive documentation, inadequate laboratory safety measures, weak laboratory management support and reagent unavailability were estimated as the challenges that affected laboratory accreditation acquisition the most (95th percentile = 270). Challenges such as poor communication, staff apathy and workload weighted least in affecting the accreditation process. There was no difference for each response to challenges between persons who worked in the laboratory before or after accreditation (p -value >0.05).

Conclusions: Challenges to accreditation are varied from the perspectives of laboratory personnel and from that of management staff. These variations range from excessive documentation, to personnel attrition, poor personnel attitudes and service interruptions as the main challenges. Laboratories considering approaches to accreditation must anticipate these potential challenges to make the approach easier.

ID:136

Topic: *AS01 Universal Health Care / 1.3 Public health education*

RÉSULTATS DE LA RÉÉDUCATION PÉRINÉALE AU CNHU-HKM DE COTONOU DE 2011 À 2020

H.E. Alagnide

Centre National Hospitalier et universitaire HK MAGA, Clinique Universitaire De Médecine Physique Et De Réadaptation, Cotonou, Bénin

Background: Malgré le tabou dont elle est entourée, la région périnéale présente diverses déficiences prises en charge en rééducation fonctionnelle. Objectif : Evaluer les résultats de la rééducation périnéale des patients suivis au CNHU-HKM de Cotonou de 2011 à 2020.

Methods: Méthode : Il s'agissait d'une étude transversale de type descriptif et analytique. La collecte de données a été rétrospective. Elle a pris en compte tous les dossiers exploitables des patients admis en rééducation fonctionnelle de 2011 à 2020 et ayant eu des séances de rééducation périnéale. Le résultat de la rééducation périnéale a été évalué, tenant compte du niveau de satisfaction du patient, des modifications notées entre le début et la fin des séances concernant les déficiences notées et de la récurrence ou non de la symptomatologie périnéale. L'étude des facteurs associés a été recherchée à partir de l'odds ratio. Le seuil de significativité choisi a été de 5%.

Results: Résultats : L'âge moyen des patients était de $47,42 \pm 2,26$ ans. Les femmes étaient prédominantes (66,97%). Le délai entre l'apparition des premiers symptômes et la consultation était de $87,85 \pm 22,70$ semaines. Les déficiences les plus fréquentes étaient les troubles vésico-sphinctériens (81,19%), de la statique pelvienne (48,62%), génito-sexuels (14,68%) et ano-rectaux (12,84%). Le délai entre la consultation et le début des séances a été de $2,98 \pm 1,00$ semaines. Le nombre moyen de séances de rééducation a été de $17,61 \pm 0,78$. Le résultat de la rééducation a été au moins bon dans 77% des cas. Il a été associé à l'atteinte du nerf pudendal ($p=0,01$) et la réduction de la mobilité viscérale active ($p=0,02$).

Conclusions: Conclusion : La rééducation périnéale a eu des résultats satisfaisants. Ces derniers sont suffisants pour susciter le dépistage des affections prises en charge dans cette spécialité de la rééducation et orienter les patients. **Mots clés:** Rééducation périnéale, déficience, résultat, Cotonou.

ID:152

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

THYROIDECTOMY AT ABASS NDAO HOSPITAL CENTER: CLINICAL PROFILES, INDICATIONS AND RESULTS

D. Diédhiou¹, E.M. Thioye², S. Djiby², M.A. Ndour², I.M. Diallo¹, A. Sarr², N.M. Ndour²

¹*Cheikh Anta Diop University, Medicine, Dakar, Senegal,* ²*Cheikh Anta Diop University, Medicine, Dakar, Senegal*

Background: The thyroid gland can be the site of anatomic-histological and functional abnormalities or cause compression of neighboring structures. The types, indications and complications of thyroidectomy are varied. The aim was to study the patient profile and assess complications after thyroidectomy at Abass Ndao Hospital.

Methods: This was a retrospective and descriptive study, carried out from January 1, 2011 to December 31, 2021. It concerned patients who had undergone a thyroidectomy.

Results: Of the 706 cases, the sex ratio was 0.09, the mean age was 41.1 ± 13 years. The clinical presentation was cervical compression (9.8%), thyrotoxicosis (61.4%), cardiothyreosis (4.8%), exophthalmos (40.7%), thyroid nodule (15.2%), multinodular goiter (47.9%), diffuse goiter (41.8%). The EU-TIRADS classification, carried out among cases of nodular goiter, found TIRADS 4 (17.2%) and 5 (1.9%). The indications were treatment failure or recurrence of Graves' disease (37.9%), toxic nodular goiter (47.17%), compressive nodule (7.79%), suspicious nodule (2.83%) and cardiothyreosis (4.8%). The mean time to surgery was 18.96 ± 9 months. It was a total thyroidectomy (85.24%), a lobectomy (14.6%). The mean hospital stay was 4.2 ± 61 days. Histological study reported 1.6% of thyroid carcinomas. Postoperative complications were hypothyroidism (86.9%), cramps and tetanias (18.43%), persistent hypoparathyroidism (11.75%), dysphonia (8.22%), paresthesia (5, 81%), laryngeal dyspnea (1.27%), cervical hematoma (0.42%), recurrent paralysis (0.14%). The lost to follow-up were 48.8%, 64% and 74.5% respectively at 3, 6, 9 months postoperatively.

Conclusions: Thyroidectomy remains a radical procedure requiring precise indications dominated in our experience by nodular goiter and relapses of Graves' disease.

ID:148

Topic: *AS01 Universal Health Care / 1.6 Human resources for health*

PHYSICIAN EMIGRATION FROM NIGERIA AND THE ASSOCIATED FACTORS: THE IMPLICATION TO SAFEGUARDING THE NATIONAL HEALTH SYSTEM

C. Onah¹, B. Azuogu¹, C. Ochie², C. Akpa¹, K. Okeke¹, A. Okpunwa³, H. Bello⁴

¹*Alex Ekwueme Federal University Teaching Hospital Abakaliki, Department Of Community Medicine, Abakaliki, Nigeria,* ²*University of Nigeria Teaching Hospital Ituku-Ozalla Enugu, Department Of Community Medicine, Enugu, Nigeria,* ³*Enugu State University of Science and Technology, Department Of Obstetrics And Gynaecology, Enugu, Nigeria,* ⁴*Federal Teaching Hospital Gombe, Department Of Community Medicine, Gombe, Nigeria*

Background: Adequate Human Resources for Health is indispensable to achieving Universal Health Coverage and physicians play a leading role. Nigeria, with low physician-population ratio, is experiencing massive exodus of physicians. This study investigated factors promoting physician-emigration to guide policies that could curtail the trend and safeguard the country's health system

Methods: Through cross-sectional survey, 913 physicians from 37 States were interviewed with semi-structured questionnaire using online Google form with link shared via WhatsApp and Telegram forums of Nigeria Medical Association and her affiliate bodies. Data was analyzed with IBM-SPSS version-23 and Chi-square and binary logistic regression tests were done with p-value set at 0.05.

Results: The mean age of respondents is 37.6 ± 7.9 years and majority are males (63.2%), married (75.5%) and have postgraduate qualifications (54.1%). Majority work in public facilities (85.4%) in urban areas (64.2%) but only 13% and 19.3% respectively are satisfied with their work and willing to continue practice in Nigeria. Up to 43.9% of them want to emigrate and the commonest reasons are poor remuneration (91.3%), rising insecurity (79.8%) and inadequate diagnostic facilities (61.8%). Satisfaction with work and willingness to remain in Nigeria are associated with education, clinical-specialty and work-experience; and satisfaction further with type of facility and willingness with marital status and satisfaction. Physicians working in public health facilities are 2.2 times less satisfied than their counterparts elsewhere. Physicians in their thirties, forties and fifties are 3.5, 5.5 and 13.8 times respectively more willing to remain in Nigeria than those younger.

Conclusions: Majority of physicians are neither satisfied nor willing to continue practice in Nigeria due mainly to poor remuneration, rising insecurity and inadequate diagnostic facilities. This portends worsening physician-population ratio. We recommend upward review of physician remuneration, provision of diagnostic equipment and improvement of security situation to curtail physician emigration and safeguard the health system.

ID:135

Topic: *AS01 Universal Health Care / 1.3 Public health education*

CATASTROPHISME ET KINÉSIOPHOBIE CHEZ LES LOMBALGIQUES CHRONIQUES À COTONOU

H.E. Alagnide

Centre National Hospitalier et universitaire HK MAGA, Clinique Universitaire De Médecine Physique Et De Réadaptation, Cotonou, Benin

Background: La lombalgie commune est un symptôme très fréquent en consultation de rééducation. Son interprétation et la réaction du patient face à cette douleur varient d'un individu à un autre. Objectif: Etudier le catastrophisme et à la kinésiophobie chez les lombalgiques chroniques dans les CHU de Cotonou en 2020.

Methods: Méthode: Etude transversale à visée descriptive et analytique. Elle a été menée sur 91 patients lombalgiques chroniques reçus en consultation, de Janvier à Août 2020, dans les CHU de Cotonou et ayant donné leur consentement éclairé. Les niveaux de catastrophisme de la douleur par les patients et de kinésiophobie ont été évalués respectivement grâce au Pain Catastrophising Scale (PCS) et le Tampa Scale of Kinesiophobia (TSK).

Results: Résultats: Les patients étaient à prédominance féminine (67%), âgés de 20 à 87 ans avec une moyenne de $51,08 \pm 12,59$ ans. 92,31% avaient au moins un niveau du secondaire. 39,56% pratiquaient une activité sportive. La

douleur était permanente (40,66%), d'intensité au moins modérée (95,6%) et évoluait depuis au moins cinq ans (56,94%). Les niveaux de catastrophisme et de kinésiophobie des patients étaient au moins moyens dans 37,17% et 48,35% des cas respectivement. Étaient associés au catastrophisme la situation matrimoniale ($p = 0,001$), le niveau d'étude ($p = 0,02$) et la fréquence de la douleur ($p = 0,04$). Quant à la kinésiophobie, elle était associée à la pratique d'activités sportives ($p = 0,02$), la fréquence de la douleur ($p = 0,01$) et ses facteurs aggravants ($p = 0,02$).

Conclusions: Conclusion: Le catastrophisme et la kinésiophobie sont assez présents chez les lombalgiques chroniques dans les CHU de Cotonou. Il est intéressant d'en tenir compte dans l'évaluation de ces patients et leur prise en charge.
Mots-clés: Catastrophisme, kinésiophobie, lombalgie chronique, Cotonou.

ID:133

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

COMMUNITY AND DELIVERY SERVICE PROVIDERS' PERCEPTIONS REGARDING BARRIERS AND FACILITATORS TO UTILISATION OF SKILLED BIRTH ATTENDANTS IN RURAL COMMUNITIES OF KANO STATE

N. Tijjani Abdullahi¹, A. Gajida², I. Abubakar², F. Tsiga-Ahmed², T. Amole², M. Bello², S. Farouk¹

¹*Aminu Kano Teaching Hospital, Kano, Community Medicine, Kano, Nigeria,* ²*Bayero University/ Aminu Kano Teaching Hospital, Kano, Community Medicine, Kano, Nigeria*

Background: The utilisation of Skilled Birth Attendants (SBA) in northern Nigeria, a region where maternal mortality is high and the lowest number of facility delivery occurs, remains suboptimal. This study assessed the perceptions of community and delivery service providers regarding barriers and facilitators to utilisation of SBA in rural communities of Kano State

Methods: This study used a cross-sectional design with a qualitative approach. Focus Group Discussions (FGD) were conducted with women aged 15-45 years and men whose wife/wives have ever given birth in six rural communities within Kano State. Key Informant Interviews (KII) with Traditional Birth Attendants (TBAs) and SBAs in the communities were also carried out. Thematic analysis was conducted based on the framework approach

Results: A total of 18 FGD and 8 KII were conducted; 12 FGD with women & 6 with men, 6 KII with TBAs and 2 with SBAs. Perceptions regarding utilisation of SBA varied, with findings ranging from a general tendency for home delivery with the assistance of a TBA, to a predisposition towards hospital delivery with the assistance of a SBA. Perceived barriers to utilisation of SBA included women's lack of decision-making power, long distance and poor terrain, financial constraints, health care workers' negative attitudes, shortage of staff, lack of equipment & supplies as well as inadequate functioning health facilities. On the other hand, civilisation, safe and holistic care received at the hospital were identified as facilitators to utilisation of SBA

Conclusions: This study described the barriers and facilitators to utilisation of SBA. Efforts should be made to empower women, improve health facilities and ensure improved and equitable access, availability and quality of skilled delivery care services

ID:130

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

PREVALENCE AND SHORT-TERM PROGNOSTIC IMPLICATION OF RIGHT VENTRICULAR SYSTOLIC DYSFUNCTION IN NIGERIAN PATIENTS WITH HEART FAILURE SECONDARY TO HYPERTENSION

A. Oguntade, A. Adebisi, O. Ogah, A. Adeoye, A. Aje

University College Hospital, Medicine, Ibadan, Nigeria

Background: Recent evidence suggests that right ventricular systolic dysfunction (RVSD) in patients with heart failure is a powerful prognostic factor and determinant of survival in these patients. The aim of this study was to assess the prevalence and short-term prognostic implication of RVSD in Nigerians with hypertensive heart failure.

Methods: One hundred and nineteen (119) patients with heart failure secondary to hypertension were recruited in a prospective longitudinal study. The patients were evaluated clinically, and right ventricular systolic function was assessed with echocardiography using the tricuspid annular plane systolic excursion (TAPSE) and pulsed tissue wave Doppler velocity of the tricuspid annulus (S') while functional status was assessed with the New York Heart Association functional class and the Karnofsky performance status scale. The patients were followed up for six months. The study outcome measures were clinical deterioration, hospitalisation and all-cause mortality.

Results: The mean (SD) age was 57.5 (11.6) years with 66 (55.5%) males and 53 (44.5%) females. The mean duration of heart failure was 23.4 months. RVSD was present in 74 (62.2%) subjects (95% CI: 53.3%, 71.0%). During the follow up period, 44 (37%) had clinical deterioration, 14 (11.8%) were hospitalized, 26 (21.8%) suffered all-cause mortality while the composite of any of the study outcomes was reached in 53 (44.5%) patients. In Kaplan Meier analysis, those with RVSD significantly suffered more clinical deteriorations ($p=0.02$) and the composite of study endpoints ($p=0.02$) while RVSD was not significantly associated with hospitalization ($p=0.21$) and all-cause mortality ($p=0.10$). In multivariable Cox regression models, RVSD was an independent predictor of clinical deterioration (adjusted HR 2.74; 95%CI: 1.10, 5.78) and showed a marginally significant association with mortality (adjusted HR 2.58; 95%CI: 0.92, 7.20).

Conclusions: RVSD is common in heart failure secondary to hypertension and is significantly associated with increased short-term risk of clinical deterioration.

ID:129

Topic: *AS01 Universal Health Care / 1.3 Public health education*

KNOWLEDGE AND ATTITUDE OF HEPATITIS B INFECTION AMONG PATIENTS WITH THE INFECTION ATTENDING A HEPATOLOGY CLINIC IN MRCG.

L. Jarju¹, S. Bittaye¹, A. Keita¹, R. Njie²

¹*Edward Francis Small Teaching Hospital, Internal Medicine, Banjul, Gambia,* ²*University of the Gambia, School Of Medicine And Allied Health Sciences, Banjul, Gambia*

Background: BACKGROUND: hepatitis B virus (HBV) is the leading cause of cirrhosis and hepatocellular carcinoma worldwide. This study assessed the level of knowledge and attitude among patients infected with HBV attending the hepatology clinic at the Medical Research Council in The Gambia. BACKGROUND: hepatitis B virus (HBV) is the leading cause of cirrhosis and hepatocellular carcinoma worldwide. This study assessed the level of knowledge and attitude among patients infected with HBV attending the hepatology clinic at the Medical Research Council in The Gambia.

Methods: This cross-sectional study was conducted at the hepatology clinic, Medical Research Council Gambia @ London School of Hygiene and Tropical Medicine. A questionnaire was administered on a one on one basis to assess the level of knowledge and attitude of people with chronic HBV.

Results: The response rate was 100% ($n = 152$). The majority of the participants ($n = 136$; 89.5%) were male, within the 30 – 39 years age group, attained a secondary or tertiary level of education, and were working as civil servants. The mean knowledge score was 11.09/20 (standard deviation = 4.89). Level of education (p -value =0.001) and time since diagnosis (p -value =0.031) were found to be significant predictors of the level of knowledge of HBV among the participants of the study. No significant association could be found between the socio-demographic and clinical characteristic variables and attitude. However, the majority of the participants (56.6%) report that they have been worried since being diagnosed with hepatitis B virus infection.

Conclusions: This study has highlighted the need for more patient and public health education especially for those with lower levels of education. It also further confirms the need for cultural and appropriate language consideration in providing education and information for HBV patients in The Gambia at the point of diagnosis.

ID:127

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

ASSESSMENT OF PRIMARY HEALTH CARE CENTRES ON AVAILABILITY OF MEDICINES AND EQUIPMENT FOR THE MANAGEMENT OF HYPERTENSION AND DIABETES IN OYO STATE, NIGERIA

M. Fagbola¹, A. Adebayo², A. Adebisi²

¹*Nigeria Centre for Disease Control, Department Of Prevention Programmes And Knowledge Management, Abuja, Nigeria,*

²*University of Ibadan, Department Of Community Medicine, Ibadan, Nigeria*

Background: According to WHO, Hypertension and diabetes mellitus are one of the four main NCDs accounting for 80% of premature NCDs deaths. To achieve universal health coverage, increasing access to NCDs management can be achieved by leveraging on the PHCs to undertake the management of early stages of NCDs by providing first contact, continuity, and integration of care. Data on the capacity of PHC centres in Oyo State for coping with the rising epidemic of NCDs are insufficient making it difficult to plan appropriate responses, therefore this study assessed the availability of medicines and basic equipment at the PHCs.

Methods: A descriptive analysis was done using an observational checklist to collect information on the availability of medicines and basic equipment for the management of hypertension and diabetes in 137 PHCs in nine rural and five urban Local Government Areas (LGAs) in Oyo state.

Results: More (94.7%) of the facilities in the urban LGAs had a stethoscope and sphygmomanometer than 83.8% of the PHC centres in the rural LGAs. Urinalysis strips needed for screening diabetes mellitus were only available in 40.3% of the urban PHC centres compared to 25.0% of the rural PHC centres. More (21%) of the facilities in the urban LGAs than 12.5% of the rural LGAs had at least one antihypertensive in the health facility. A few of the PHC centres 5.3% in the urban and 2.5% in the rural LGAs had at least one medicine for the management of diabetes. None of the health facilities had a functional oxygen cylinder and only one each in the urban and rural health facility had a pulse oximeter

Conclusions: The capacity of PHCs to manage hypertension and diabetes was inadequate and to achieve UHC, PHCs need to be equipped with basic equipment and medicines to provide care for early stages of NCDs

ID:111

Topic: *AS01 Universal Health Care / 1.4 Data for management and policy making*

UTILITY OF FRUCTOSAMINE IN SCREENING FOR GESTATIONAL DIABETES MELLITUS

A. Abu¹, L. Imoh², C. Isichei², A. Gadzama³

¹*Federal Medical Centre, Makurdi, Chemical Pathology, Makurdi, Nigeria,* ²*University of Jos and Jos University Teaching Hospital, Plateau State, Nigeria, Chemical Pathology, Jos, Nigeria,* ³*University of Abuja and University of Abuja Teaching Hospital, Abuja, Nigeria, Chemical Pathology, Abuja, Nigeria*

Background: Fructosamine is being advocated as an alternative screen test for Gestational Diabetes Mellitus (GDM) due to its simplicity compared to the conventional Oral Glucose Tolerance Test (OGTT). We evaluated the correlation of fructosamine and corrected fructosamine with OGTT.

Methods: This was a cross-sectional study done at the antenatal clinic of Federal Medical Centre, Makurdi, which involved 160 pregnant women, 120 of whom had one or more risk factors for GDM. OGTT was carried out at 24-28 weeks of gestation using 75g of anhydrous glucose and samples taken for plasma glucose, serum fructosamine, and total protein assays which were assayed using Cobas C311 commercial kits. GDM diagnosis was made using World Health Organization (WHO) 2013 criteria.

Results: The majority of the participants 130 (81.3%) were normoglycaemic while those with GDM were 25 (15.6%) and Diabetes in Pregnancy (DIP) were 5 (3.1%). The mean(SD) glucose at 0-hour, 1-hour, and 2-hour were 4.8(0.8), 7.2(1.9) and 6.7(1.5) mmol/L respectively while the mean(SD) of fructosamine and corrected fructosamine were 221.0(21.3) and 253.7(25.4) $\mu\text{mol/L}$ respectively. The mean fructosamine and Corrected fructosamine were not

significantly different in the GDM and non-GDM participants. Also, the correlation of fructosamine and Corrected fructosamine with glucose values in OGTT were poor and statistically insignificant in both groups ($r < 0.2$; $P < 0.05$). At fructosamine cut-off value of $216.0 \mu\text{mol/L}$ (50th percentile) the sensitivity, specificity, positive predictive, and negative predictive values for predicting GDM were 60%, 51.5%, 19.1%, and 87.1%. respectively.

Conclusions: Fructosamine showed a poor correlation with OGTT as a screening tool for GDM. Gestational age-specific reference interval of serum fructosamine and Correction with Population-derived serum total protein may help in better interpretation of serum fructosamine in pregnancy.

ID:207

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

CAN THE "AGES AND STAGES QUESTIONNAIRES-3" (ASQ-3) TEST BE USED AS A STANDARDIZED SCREENING TEST FOR DEVELOPMENTAL DELAY IN PRESCHOOL CHILDREN IN SOUTH BENIN?

F. Lalya¹, L. Zohoun¹, N. Enianloko-Tchiakpe¹, R. Soglo¹, C. Padonou², F. Alihonou¹, L. Bagnan-Tossa¹, M. D'Almeida-Hounnou¹

¹University Hospital CNHU Hubert K. Maga, Pediatrics, Cotonou, Benin, ²University Hospital CHUD-OP, Pediatrics, Cotonou, Benin

Background: Development screening is an important tool to screen for and diagnose problems and initiate early intervention. Unlike for child growth, there is no standardized screening tool for developmental delay in Benin. We aimed to assess how ASQ-3 could contribute to the screening of developmental delay in preschool children in southern Benin.

Methods: This was a cross-sectional, prospective, descriptive, and analytical study conducted from August 10 to October 30, 2020. We included pediatricians and senior residents in pediatrics, working in pediatric services in Cotonou and Porto-Novo, and preschool children who came for consultation or were invited on the basis of risk factors for developmental abnormalities identified in their neonatal records. Development was assessed by practitioners with their usual methods of evaluation and by using the age-appropriate ASQ-3 test. The performance of ASQ-3 test was compared to that of usual methods. Data analysis was done with R software. Youden index was used for diagnostic accuracy.

Results: 76 practitioners and 110 children participated in the study. Clinical judgment was used by all 76 practitioners as a first-line method of assessment. When a delay was suspected, 32.9% proceeded with the administration of a standardized tool. Despite difficulties remembering all stages of normal development (27.6% of practitioners in children < 2-years and 61.8% of practitioners in children between 2 and 5 years), very few doctors have used a reminder in their evaluation (28.9%). Approximately 11% of children were identified as presenting at least one item delay compared with 39.1% identified by the ASQ-3 tool. Clinical judgment compared to ASQ-3 showed a low sensitivity (16.28%) but a good specificity (92.54%) for the detection of developmental delay, regardless of the domain considered.

Conclusions: In the context of time shortage for the assessment of psychomotor development in clinics, the ASQ-3 tool may help improve the detection of developmental delay in children.

ID:206

Topic: *AS01 Universal Health Care / 1.3 Public health education*

POPULATION AND INDIVIDUAL-LEVEL DOUBLE BURDEN OF MALNUTRITION AMONG ADOLESCENTS IN TWO EMERGING CITIES IN NORTHERN AND SOUTHERN NIGERIA: A COMPARATIVE CROSS-SECTIONAL STUDY

I. Akhimienho

Edo state university, Paediatrics, Benin, Nigeria

Background: Over the past three decades, double burden of malnutrition (DBM) continues to rise in sub-Saharan Africa. Compared to other countries in the region, the evidence on DBM is limited in Nigeria.

Methods: This was a comparative cross-sectional study among apparently healthy secondary school adolescents aged 10–18 years in Gombe (northern Nigeria) and Uyo (southern Nigeria) between January 2015 and June 2017. A multistage random sampling technique was implemented to recruit adolescents from 24 secondary schools in both cities. Measures of general obesity (body mass index) and stature (height-for-age) were classified and Z-scores generated using the WHO AnthroPlus software. Population-level DBM was defined as the occurrence of thinness and overweight/obesity within the population. Individual-level DBM was defined as the proportion of individuals who were concurrently stunted and had truncal obesity or stunted and were overweight/obese.

Results: Overall, at the population-level in both settings, 6.8% of adolescents had thinness, while 12.4% were overweight/obese signifying a high burden of population-level DBM. Comparatively, the population-level DBM was higher in Gombe compared to Uyo (thinness: 11.98% vs 5.3% and overweight/obesity: 16.08% vs 11.27% in Gombe vs Uyo respectively). Overall, at the individual level, 6.42% of stunted adolescents had coexisting truncal obesity, while 8.02% were stunted and had coexisting general overweight/obesity. Like the trend with population-level DBM, individual-level DBM was higher in Gombe compared to Uyo.

Conclusions: High levels of population-level and individual-level DBM exist in Gombe and Uyo. However, the level of DBM is higher in Gombe compared to Uyo.

ID:201

Topic: *AS01 Universal Health Care / 1.6 Human resources for health*

HOW COVID-19 HAS IMPACTED THE PREFERENCE FOR DELIVERY OF POST-GRADUATE TRAINING COURSES IN WEST AFRICA

E. Nkereuwem

MRC Unit The Gambia at LSHTM, Vaccines And Immunity, Gambia, Gambia

Background: The COVID-19 pandemic has led to the disruption of many aspects of medical services, including medical education. This has vast implications for doctors undergoing postgraduate training to become specialists, especially in a setting where this much-needed expertise is currently lacking. However, it has also presented an opportunity for innovation to the traditional model of delivering postgraduate medical training in west Africa. We sought to capture the experiences of trainees and trainers of postgraduate medical colleges in West Africa and assess their preferences for the mode of delivery of future training courses.

Methods: This was a cross-sectional online survey of trainees and trainers of postgraduate medical colleges in West Africa between May-July 2020. We collected quantitative and qualitative data on their preferences for virtual versus face-to-face modes of delivering future training courses and explored the reasons for these preferences.

Results: There were 614 respondents from eight West African countries comprising 430 trainees (40% females) and 184 trainers (38% females). Over a third of respondents were physicians. More than half of respondents (56%) preferred virtual over face-to-face for future training courses; this was similar for trainees (56%) and trainers (56%). Reasons for preferring virtual over face-to-face training were that it was safer (86%), cheaper for the trainees (57%) and allowed the individuals to stay close to family (56%) and work (56%). Reasons for preferring the face-to-face modes included the opportunity to be familiar with the trainers (37%), other trainees (32%), and exam centres (16%). Most respondents recognised that going forward, trainees and trainers should be able to choose from both options.

Conclusions: More respondents preferred virtual over the face-to-face mode of delivering future training courses. While training will not completely switch to virtual mode, the COVID-19 pandemic has taught us that virtual mode will play a substantial role in delivering future postgraduate medical training courses.

ID:197

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

WHY DO WOMEN NOT DELIVER IN HEALTH FACILITIES?: A MIXED METHODS STUDY AMONG WOMEN IN AN URBAN SLUM IN NORTH WEST NIGERIA

K. Hamza¹, E. Adams², S. Usman³, B. Nwankwo⁴, A. Lawal³, A. Aliyu¹

¹Ahmadu Bello University, Department Of Community Medicine, Samaru, Zaria, Nigeria, ²Ahmadu Bello University, College Of Medical Sciences, Samaru, Zaria, Nigeria, ³Ahmadu Bello University Teaching Hospital, Community Medicine, Samaru, Zaria, Nigeria, ⁴Kaduna State University, Community Medicine, Kaduna, Nigeria

Background: There is still high prevalence of maternal mortality in low income countries, often, these mothers die at the time of delivery and from causes that are avoidable and preventable. Having a skilled attendant during child birth is one of the most important interventions in reducing maternal morbidity and mortality. There are women in urban areas of Nigeria who still have home deliveries conducted by unskilled traditional birth attendants. The objective of this study was to assess reasons why mothers in Samaru community, north west Nigeria do not use health facilities for child delivery.

Methods: A cross-sectional descriptive study was done. We used mixed methods to collect data. There were 310 respondents, selected through a multistage sampling technique for the quantitative component and data was collected using a structured, pretested questionnaire. Focused group discussions with groups of women who were purposively selected were conducted. Quantitative data was analysed using the IBM® SPSS® software (V.23). Thematic content analysis was performed for the qualitative data. Data was gathered and analysed using triangulation methods.

Results: Mean age of respondents was 31±8 with the youngest at 18 years. Majority, 229(74%) had attained at least secondary education. There were 89 (28.7%) who had their deliveries at home. The predominant reason for home delivery was financial barrier, they also did not see any reason for hospital birth because they had previous deliveries with no complications. The narrative data revealed that it is more important to attend ante natal care, which to them paved way for safe delivery anywhere, hospital delivery was viewed only necessary in the event of difficulties or obstetric emergencies.

Conclusions: Antenatal care was nearly universal but there was still high rates of home deliveries. Educational and economic interventions will help reduce barriers and address misconceptions about hospital deliveries.

ID:188

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

AVAILABILITY AND QUALITY OF BASIC EMERGENCY OBSTETRIC CARE SERVICES IN PRIMARY HEALTH CARE CENTERS IN KANO METROPOLIS

N. Tijjani Abdullahi¹, I. Abubakar², S. Farouk¹, H. Maizare¹

¹Aminu Kano Teaching Hospital, Kano, Community Medicine, Kano, Nigeria, ²Bayero University/ Aminu Kano Teaching Hospital, Kano, Community Medicine, Kano, Nigeria

Background: Maternal mortality remains a major Public Health challenge in Nigeria, despite policies and strategies to reverse this trend. The major causes of maternal mortality in Nigeria can be prevented if good quality obstetric care services are made available. The study assessed the availability and quality of Basic Emergency Obstetric Care (BEmOC) services in Primary Health Care (PHC) centres in Kano Metropolis

Methods: Using a cross-sectional study design, 30 PHC centres were assessed. Data was collected using an adapted structured interviewer administered questionnaire and analysed using SPSS version 20

Results: Kano Metropolis fell below the accepted standard for the number of BEmOC facilities required for the available population (4 BEmOC facilities per 500,000). Most of the health facilities, 23(77%) did not provide obstetric

care for 24 hours a day 7 days a week and none of the PHCs qualified as a BEmOC facility according to the United Nation's (UN) standard. Drugs including parenteral antibiotics and oxytocics, equipment and supplies necessary for BEmOC were found to be adequate, however anticonvulsants, antihypertensives and items necessary for assisted vaginal delivery and removal of retained products of conception were found to be grossly inadequate. There was also critical shortage of skilled birth attendants.

Conclusions: The study provides useful information on the state of BEmOC provided in PHC centres in Kano Metropolis. There is need for strengthening of the PHC system so as to improve the services and ultimately reduce morbidity and mortality among women of child-bearing age.

ID:164

Topic: *AS01 Universal Health Care / 1.6 Human resources for health*

PROFILE OF BIERMER'S DISEASE AT THE MEDICAL CLINIC II ABASS NDAO HOSPITAL CENTER: ABOUT 57 COLLIGED CASES

M.A. Ndour¹, D. Diédhiou¹, S. Djiby¹, J. Borges Pereira¹, A. Sarr¹, M. Ndour Mbaye²

¹*Cheikh Anta Diop University, Medicine, Dakar, Senegal,* ²*Cheikh Anta Diop University, Medecine, Dakar, Senegal*

Background: Biermer's disease is an autoimmune cause of anemia characterized by malabsorption of vitamin B12. It is often accompanied by other autoimmune pathologies. The objective was to study its profile in patients followed in the internal medicine department of the Abass Ndao hospital center.

Methods: This was a retrospective and descriptive study of patients followed for Biermer's disease from January 1, 2014 to December 31, 2019 (5 years).

Results: 57 cases were collected, an incidence of 5.4 in the internal medicine department. The sex ratio was 0.58, an average age of 56.4 years. The circumstances of discovery were dominated by anemic syndrome (87.7%), dermatological (33.3%), digestive (29.8%), neurological (20%) pathologies. The specific signs to Biermer's disease were digestive manifestations in 70.2% (including 30% Hunter's glossitis), neurological manifestations in 36.8% (including 17.5% paresthesias), palmoplantar melanoderma in 68.4%. The mean hemoglobin level was 6.8 g/dL with a mean corpuscular volume of 110.7 fl. The myelogram reported megaloblastosis in 100% of the cases. The mean serum vitamin B12 level was 100 pg/ml. The antiintrinsic factor antibody assay performed in 50 patients was positive in all cases. Upper digestive endoscopy showed an aspect of fundic atrophy in 69%. Histology showed intestinal metaplasia in 2 patients. An autoimmune disease was associated in 21% of cases. All patients had received treatment with vitamin B12 (51 patients took intramuscularly and 6 oral treatment). The course was favorable in all cases with a complete correction of the anemia.

Conclusions: Biermer's disease is a reality in Senegal. Its clinical and biological characteristics can be superimposed on the data in the literature. His prognosis under treatment is good whatever the route of administration of vitamin B12.

D:110

Topic: *AS01 Universal Health Care / 1.3 Public health education*

OPTIMISING VACCINATION COVERAGE IS AN ESSENTIAL TOOL FOR ACHIEVING UNIVERSAL HEALTH COVERAGE

M.O.C. Ota¹, J.C. De Moraes², I. Vojtek¹, D. Constenla³, T.M. Doherty⁴, O. Cintra⁵, J.M. Kirigia⁶

¹*GSK, Medical Affairs, Wavre, Belgium,* ²*Faculty of Medical Sciences of Santa Casa de Sao Paulo, Department Of Collective Health, Sao Paulo, Brazil,* ³*GSK, Us Research & Development, Rockville, United States of America,* ⁴*GSK, Medical Affairs, Brondby, Denmark,* ⁵*GSK, Medical Affairs, Rio de Janeiro, Brazil,* ⁶*African Sustainable Development Research Consortium (ASDRC), N/a, Nairobi, Kenya*

Background: Universal health coverage (UHC; providing all people with quality healthcare at affordable costs) is an element of the Sustainable Development Goals (SDG) that the United Nations (UN) has resolved should be achieved

by 2030. To achieve UHC, countries must extend healthcare to all, by keeping healthcare affordable and expanding access.

Methods: Description of the problem While each country faces individual challenges in their endeavour to achieve UHC (e.g. limited resources, supply constraints), all will require sustainable solutions and resources and cost-effective measures. Vaccination is a readily available tool that relieves the burden of vaccine-preventable diseases (VPDs) and further releases resources to strengthen other areas required to make progress towards UHC.

Results: Findings Vaccination programmes can improve not just life expectancy but also years of healthy life, which in turn benefits the economy and releases financial and medical resources back into the healthcare system. Vaccines are a cost-effective investment, providing a large financial return that can be up to 16 times greater than the investment cost. Vaccines also protect individuals and communities against the financial risks associated with VPDs, which in many countries can be devastating. For diseases that do not have a vaccine, resources released from using available vaccines could be re-invested into vaccine development. New technologies and fast antigen identification can enable rapid development, preventing outbreaks and protecting valuable resources.

Conclusions: To achieve UHC, countries must implement effective vaccination strategies, such as legislating the use of appropriate vaccines, allocating adequate resources to enhance availability, increasing target population coverage, and providing equity in access to vaccines. Also, to improve demand for vaccines, countries should raise awareness of the benefits of vaccination amongst healthcare practitioners and the community (especially in marginalised, hard-to-reach areas).

ID:40

Topic: *AS01 Universal Health Care / 1.4 Data for management and policy making*

HERBAL MEDICINE USE AMONG ADULTS ATTENDING THE NATIONAL HEALTH INSURANCE CLINIC IN A TERTIARY HOSPITAL IN NORTHERN NIGERIA

A. Maiyegun, Y. Mutalub, A.-T. Muhammad, M. Akangoziri

Abubakar Tafawa Balewa University Teaching Hospital, Department Of Family Medicine, Bauchi, Nigeria

Background: The WHO reports that not less than 80% of its member states use traditional and complementary medicine (TCM), with a prevalence of 80% to 90% in many countries, and emphasises the need for increased research into, and integration of, TCM into the health systems. Herbal medicine (HM) is often the commonest TCM used in many countries, including West Africa. Most studies about HM in Nigeria have been in uninsured populations, who pay for health services out of their pockets, and for whom the cost of orthodox medicine may account for the patronage of HM. This study aimed to investigate the use of HM among patients enrolled in the National Health Insurance Scheme (NHIS), who benefit from high-quality orthodox health services at greatly subsidised costs. This information will provide crucial data on HM use among the insured, especially as the country works towards universal health coverage.

Methods: This was an analytical, cross-sectional study carried out among 364 participants attending the NHIS clinic of Abubakar Tafawa Balewa University Teaching Hospital, a federal, tertiary hospital in Bauchi, North-East Nigeria. Participants were adults (≥ 18 years old), of both genders, selected by systematic random sampling. The minimum sample size was 341. An interviewer-administered questionnaire was used.

Results: The lifetime prevalence of herbal medicine use was 76.7%, with point prevalence being 21.7%. HM and orthodox medicine were combined by 34.1%. The commonest herb used was moringa (47.3%). Over half (50.5%) of the participants were 'very likely' to use herbs in the future, and 55.6% wanted HM integrated into the health system. Most (67.4%) used herbs for treatment.

Conclusions: Despite access to orthodox medicine at subsidised cost, many participants continue to use HM, and even want its integration into the orthodox health system. Therefore, patients are likely to continue using HM even after Nigeria achieves universal health coverage.

ID:56

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

FAMILY CHARACTERISTICS AND REPRODUCTIVE HEALTH DETERMINANTS OF CONTRACEPTIVE USE AMONG WOMEN OF REPRODUCTIVE AGE, ATTENDING A GENERAL OUT-PATIENTS' CLINIC IN NIGERIA

T. Salam, S. Muyibi, O. Mosuro, A. Adetunji
University College Hospital, Family Medicine, Ibadan, Nigeria

Background: Major reproductive health problems affecting women of reproductive age especially in sub-Saharan Africa include unplanned pregnancies, unsafe abortions, sexually transmitted infections (STIs) and low use of modern contraceptives. However, there is evidence of an increase in contraceptive use over the past decade. This study was carried out to determine the sociodemographic, family characteristics and reproductive health predictors of contraceptive use among women of reproductive age, attending a General Out-patients' clinic at the University College Hospital, Ibadan.

Methods: A descriptive, cross-sectional, hospital-based study was conducted on 323 women of reproductive age (15-49 years) for three months. Data were retrieved using a semi-structured questionnaire and analyzed using the Statistical Package for Social Sciences (SPSS) version 23.

Results: The mean age of the participants was 34.9 ± 8 years. The prevalence of contraceptive use was 43.7%, and out of which, 34.4% accounted for modern methods. The age of the participants, marital status, income and source of family financing, age of the partner, the timing for additional children, relationship with a sexual partner and knowledge of fertile period had significant associations with contraceptives used at 5% level of significance. The predictors of contraceptive use include higher income (OR=1.84, $p=0.023$), joint family financing (OR= 11.9, $p=0.013$), and those who desired to postpone and do not have a plan for pregnancy (OR= 5.2, and OR=5.6, $p=0.001$).

Conclusions: The desire to postpone pregnancy to later and women's empowerment and participation in reproductive health decision making are of importance in predicting the use of contraceptives among women of reproductive age.

ID:39

Topic: *AS01 Universal Health Care / 1.3 Public health education*

CORRELATES OF INTIMATE PARTNER VIOLENCE AND PERCEPTION TOWARDS SCREENING AMONG WOMEN ATTENDING THE GENERAL OUTPATIENT CLINIC IN FEDERAL MEDICAL CENTRE, OWO

A. Akinyugha, O. Olajide, H. Okunrinboye
Federal Medical Centre, Family Medicine, Owo, Nigeria

Background: Intimate Partner Violence (IPV) is an often under-diagnosed and under-reported public health problem of global magnitude that majorly affects women and their respective families. There is currently no universally agreed recommendation to routine hospital IPV screening. This study determined the prevalence, pattern, associated factors together with the perception towards IPV screening in a hospital setting.

Methods: This descriptive, cross-sectional study of 347 consenting adult female respondents was carried out from October to November 2017 at the General Outpatient Clinic of Federal Medical Centre, Owo in Ondo State, South-West Nigeria. Ethical approval was obtained from the hospital's Research and Ethics Committee. Respondents were recruited by systematic random technique. Data was collected using the adaptation of the World Health Organization's Multi-country Study on Women's Health and Domestic Violence against Women questionnaire – a cross-culturally validated instrument. Data was analysed using SPSS 22 and the level of significance was at 5%.

Results: The mean age of the respondents was 41.77 ± 15.64 years. The overall IPV prevalence was 71.2%. The prevalence of IPV pattern was controlling behaviour (49.6%), psychological (47.0%), physical (32.9%) and sexual (19.6%) respectively. IPV was significantly associated with marital status ($p=0.023$), alcohol use ($p=0.025$), money problems ($p=0.002$), absence of food at home ($p=0.015$), jealousy ($p=0.012$), sex refusal ($p<0.001$), disobedience to partners ($p=0.003$), children matters ($p<0.001$) and partners' belief in wife beating ($p=0.002$). Logistic regression

revealed partners' belief in wife beating to be the most significant predictor (OR = 3.734, CI = 1.610 – 8.660, p = 0.002). Most respondents (85%) agreed that women should be routinely screened for IPV in the hospital setting positing that it will help Physicians in making the right diagnosis.

Conclusions: IPV was prevalent and controlling behaviour was the commonest pattern. Partner's belief in wife beating was the major predictor found. Most of the respondents were opened to routine hospital IPV screening.

ID:26

Topic: *AS01 Universal Health Care / 1.3 Public health education*

ESTIMATED GLOMERULAR FILTRATION RATE AND URINARY ALBUMIN EXCRETION IN NORMAL WEIGHT, OVERWEIGHT AND OBESE YOUNG ADULTS IN LAGOS STATE

O. Ibrahim¹, E. Azinge², O. Amira³

¹*Olabisi Onabanjo University Teaching Hospital, Chemical Pathology and Immunology, Sagamu, Nigeria,* ²*Lagos University Teaching Hospital, Department of Clinical Patology, Lagos, Nigeria,* ³*Lagos University Teaching Hospital, Department of Internal Medicine, Lagos, Nigeria*

Background: Obesity has reached epidemic proportions globally and has emerged as a risk factor for the development of chronic kidney disease (CKD). The aim of our study was to compare markers of kidney damage (estimated glomerular filtration rate {eGFR} and urine albumin excretion) in normal, overweight and obese young adults in Lagos.

Methods: A cross-sectional study was carried out among 259 healthy, normotensive and euglycaemic young adults aged between 18-40 years (mean age was 31.29 ± 5.83 years) residents of Lagos State. Participants were divided into three groups based on body mass index (BMI), normal weight ($18.5-24.9 \text{ kg/m}^2$), overweight ($25-29.9 \text{ kg/m}^2$) and obese ($>30 \text{ kg/m}^2$) groups. The eGFR was estimated using the creatinine-based Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation. Albuminuria was measured using the urinary albumin/creatinine ratio (ACR) and classified according to Kidney Disease Improving Global Outcomes (KDIGO) criteria.

Results: The systolic blood pressure was significantly higher in the obese ($118.7 \pm 8.77 \text{ mmHg}$) and overweight ($118.87 \pm 10.10 \text{ mmHg}$) groups compared to the normal weight group ($115.32 \pm 8.64 \text{ mmHg}$) $p < 0.05$. 93.4% were in the G1 stage while others were in the G2 stage. 85.7% had normal to mildly increased albuminuria, while 12.0% and 2.3% had moderately and severely increased albuminuria respectively. The prevalence of albuminuria in the normal weight, overweight and obese groups were 14.5%, 11.3% and 17.1% respectively, $X^2 8.365$ and $p = 0.079$.

Conclusions: This study shows a high prevalence of obesity among young adults. Obese and overweight individuals had higher SBP. There was no significant difference in prevalence of markers of renal disease between the normal weight, overweight and obese groups.

ID:25

Topic: *AS01 Universal Health Care / 1.7 Digital health (including mobile health mHealth; Health information technology, wearable devices, telehealth, telemedicine)*

PHENOTYPIC ASSOCIATIONS AND CLINICAL SIGNIFICANCE OF AMBULATORY BLOOD PRESSURE IN CHRONIC KIDNEY DISEASE

C. Osagie¹, A. Adeoye², A. Adebisi², S. Ajayi², O. Ogah², A. Aje², O. Oladapo², K. Karaye³, J. Yaria²

¹*New Cross Hospital, Royal Wolverhampton NHS Trust, Heart And Lung Centre, Wolverhampton, United Kingdom,* ²*University College Hospital, Medicine, Ibadan, Nigeria,* ³*Bayero University and Aminu Kano Teaching Hospital, Medicine, Kano, Nigeria*

Background: Out-of-office blood pressure measurements are better predictors of major cardiovascular events among people with chronic kidney disease (CKD) than one-point clinic blood pressure check.

Methods: A total of 160 CKD patients were followed up for nine months. Biochemical analysis, ECG, echocardiography and identification of the ambulatory blood pressure (ABP) phenotype using validated electronic upper-arm cuff device and a 24-hour ABP monitoring device were done at study entry. Repeat ECG was done at the

end of the study. The predictors and clinical significance of the ABP were assessed using multivariate logistic regression. The outcome measures included hospitalization, nonfatal myocardial events and mortality.

Results: The mean age of the study population was 49.6 ± 13.0 years, comprising 42.5% females. Over half (61.3%) of the study population had sustained hypertension (SH); normotension, masked hypertension (MH) and white coat hypertension (WCH) accounted for 16.9%, 15% and 6.9% respectively. With regards to the dipping status, reverse dipping (RD) was the most frequent (39.4%) while non-dipping (ND), dipping and extreme dipping (ED) accounted for 33.8%, 18.1% and 8.8% of the study population respectively. Having maintenance haemodialysis, using ≥ 3 anti-hypertensive medications daily and lower serum albumin were positive predictors of RD. Higher left ventricular mass index (LVMI) and higher body mass index (BMI) were predictors of SH and MH. Female sex and using ≥ 3 anti-hypertensive medications were additional predictors of sustained hypertension while using any anti-hypertensive medication, higher serum creatinine and lower serum albumin were predictors of masked hypertension. Proteinuria was a negative predictor of MH. MH was an independent risk for hospitalization (HR, 5.5; 95% CI, 1.3–23.3).

Conclusions: Parameters like serum albumin and creatinine, anti-hypertensive medication use, proteinuria, LVMI, BMI and having maintenance haemodialysis can be used to predict the ABP phenotype. MH is an independent risk for hospitalization amongst CKD patients.

ID:58

Topic: *AS01 Universal Health Care / 1.2 Community-based health insurance*

FAMILY CIRCLE AND WILLINGNESS TO SUBSCRIBE COMMUNITY-BASED HEALTH INSURANCE (CBHI) FOR THE ELDERLY IN A RURAL COMMUNITY IN SOUTH-SOUTH NIGERIA.

S. Uriah¹, F. Archibong², A. Ayuk³, U. Asibong², A. Atangwho²

¹Rivers State University Teaching Hospital (RSUTH), Family Medicine, Port Harcourt, Nigeria, ²University of Calabar Teaching Hospital, Family Medicine, Calabar, Nigeria, ³University of Calabar, Family Medicine, Calabar, Nigeria

Background: The aged in most rural communities depend on family members to provide resources for their healthcare. However, such payment for health services are mostly out of pocket. In trying to protect the health of the elderly who by nature is prone to high morbidity, other younger family members may be contacted for financial support for their healthcare through contribution to the CBHI. This study assessed the willingness of the significant order in the family to subscribe the CBHI for the elderly within the family.

Methods: A cross sectional survey was used to study 358 elderly people, and their significant order (identified by the family circle tool). The respondents were selected by a multistage sampling technique from nine clusters of villages within the community. The data were generated with an interviewer administered semi-structured questionnaire. For the significant order that lived outside the community phone call was used for the interview. Descriptive and inferential analyses were done using SPSS 22.

Results: Majority of the significant order (97.8%) were aged less than 60 years and mostly females (67.9%) and attained tertiary level of education (75.4%). Most of the significant orders were civil servants (83.0%); 94.7% were Christians; 87.4% were married, and 83.2% in urban location. Only 7.5% were aware of CBHI and 56.7% were willing to buy ₦10,000 subscription CBHI. Socio-demographic characteristics that were significantly associated with willingness to subscribe for CBHI were age < 60 years ($X^2=6.516$; $p=0.040$), tertiary education ($X^2=37.052$; $p<0.001$), occupation ($X^2= 46.165$; $p<0.001$), religion ($X^2=9.771$; $p=0.008$), marital status ($X^2=19276$; $p<0.001$), place of residence ($X^2=68.448$; $p<0.001$) and monthly income ($X^2=26.164$; $p<0.001$).

Conclusions: There is need to create awareness on CBHI in communities, as majority of the significant orders identified in this study were ready to subscribe to CBHI for the elderly member of their family at a convenient cost.

ID:109

Topic: *AS01 Universal Health Care / 1.3 Public health education*

MICROALBUMINURIA AND URINARY NGAL LEVELS AMONG TYPE 2 DIABETIC PATIENTS IN ZARIA, NIGERIA

A. Dogara¹, I. Aliyu², D. Mshelia³, R. Yusuf², J. El-Bashir², H. Suleiman², F. Mahmud², M. Abubakar²

¹Ahmadu Bello University Teaching Hospital, Zaria, Nigeria, ²Chemical Pathology, Ahmadu Bello University Teaching Hospital, Zaria, Nigeria, ³University of Maiduguri Teaching Hospital, Maiduguri, Nigeria, ⁴Chemical Pathology, Ahmadu Bello University Teaching Hospital, Zaria, Nigeria

Background: Diabetic nephropathy is one of the major complications of diabetes mellitus associated with increased risk of morbidity and mortality. Microalbuminuria (MAU) and urinary NGAL (u NGAL) levels are reported to be elevated in diabetic nephropathy and high level of these urinary biomarkers indicate progressing nephropathy and renal failure in some patients. The aim of this work is to evaluate the levels of microalbuminuria and urinary NGAL in type 2 diabetic patients.

Methods: One hundred type 2 diabetic patients and equal number of apparently healthy age and sex-matched controls were recruited. Urinary albumin was analysed using FIA method, u NGAL analysed using ELISA method and creatinine was analysed using automated chemistry analyzer. Urinary Albumin creatinine ratio (u ACR) was calculated as mg Albumin/mmol Creatinine and urinary NGAL calculated as pg NGAL/mg Creatinine.

Results: Median (IQR) values of u ACR and u NGAL/Cr in type 2 diabetic patients were found to be significantly higher than in age and sex matched controls ($p < 0.05$). Pearson's correlation showed u ACR and u NGAL/Cr correlated significantly with each other ($r = 0.360$, $p = 0.000$) among the patients and also significant negative correlation between u ACR and e GFR ($r = -0.318$, $p = 0.001$) and between u NGAL/Cr and e GFR (r -value = -0.202 , p -value = 0.044).

Conclusions: The concentrations of Microalbuminuria and urinary NGAL were higher in type 2 diabetic patients compared to controls. Both biomarkers may be used to assess residual renal function.

ID:99

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

ACHIEVING UNIVERSAL HEALTH COVERAGE; ROLE OF HEALTH WORKERS IN PRIMARY HEALTH CARE CENTERS IN SABON GARI LOCAL GOVERNMENT AREA, ZARIA, KADUNA STATE, NIGERIA

B. Usman¹, A. Olorukoba², M. Hassan³, Z. Zambuk⁴, H. Sulaiman⁵

¹Ahmadu Bello University Teaching Hospital, Community Medicine Department, Zaria, Nigeria, ²Ahmadu Bello University, Community Medicine Department, Zaria, Nigeria, ³National Primary Health Care Development Agency, Public Health Department, Abuja, Nigeria, ⁴National Primary Health Care Development Agency, Community Health Services Department, Abuja, Nigeria, ⁵Federal Capital Territory Primary Health Care Board, Disease Control Department, Abuja, Nigeria

Background: Universal Health Coverage (UHC) is the capacity of health systems to respond to the populations' needs at any care level, provision of infrastructure, appropriately skilled human resources and health technologies without exposing the user to financial hardship. The means of achieving UHC is through the primary health care (PHC) systems. PHC workers are supposed to play a pivotal role in achieving UHC however, their roles and contributions have not been duly assessed.

Methods: We conducted a cross-sectional study among 100 Primary health care workers in August 2018 through a multistage sampling technique using a semi structured self-administered questionnaire. The 22 Primary health care facilities in Sabon Gari Local Government area of Kaduna state were sampled. The data were analysed using the statistical software package SPSS version 21.

Results: The major age group (42%) among the respondents was 30-39 years. The major cadre was community health extension workers (32.0%). Majority (88.0%) of the respondents dry the baby with a towel/cloth immediately after birth however only 23.0% placed the baby on the mother's belly/breast before delivery of the placenta. Measurement of

the weight of children under the age of 5 was done by the majority of the respondents (74%) but only 68% undress the child before weighing. Oral rehydration solution (ORS) and zinc tablets for the management of diarrhoea were given by 68% of the respondents while only 40% of the respondents administer Artemisinin Combination Therapy (ACT) for the management of fever. Combined Oral Contraceptive Pills and injectable contraceptives were provided by 80% and 73% of the respondents respectively. The vital signs of women during labour were assessed by 76% of the respondents, while 52% chart Partograph for women during labour.

Conclusions: Conclusion : This study shows that primary health care workers contribute to accessing basic and essential health services in communities.

ID:73

Topic: *AS01 Universal Health Care / 1.3 Public health education*

L'ÉQUILIBRE GLYCÉMIQUE CHEZ LES PATIENTS DIABÉTIQUES EN MÉDECINE EXTERNE AU CENTRE NATIONAL HOSPITALIER ET UNIVERSITAIRE HUBERT KOUTOUKOU MAGA-CNHU-HKM DE COTONOU

*A. Kerekou Hodé, A.H. Dedjan
CNHU, Endocrinology, Cotonou, Benin*

Background: Introduction Le diabète constitue un véritable problème de santé publique et sa prévalence est en nette progression. Cette augmentation du nombre de patients diabétiques s'accompagne également de l'augmentation de la morbidité et de la mortalité liées au diabète. La prévention de ces complications passe par un équilibre glycémique satisfaisant. Le principal marqueur biologique d'appréciation de l'équilibre glycémique est l'hémoglobine glyquée

Methods: L'objectif de ce travail était d'évaluer l'équilibre glycémique des patients diabétiques consultant en médecine externe au CNHU-HKM. Il s'agit d'une étude descriptive et transversale incluant tous les patients diabétiques reçus en consultation sur la période de janvier à mars 2020

Results: Au total, 55 patients ont été retenus dans cette étude dont 33 femmes (60%). Cinquante et un patients avaient un âge supérieur à 40ans (92,73%). Tous les patients étaient diabétiques type 2. En ce qui concerne l'ancienneté du diabète, 41,82% avaient moins de 5 ans d'ancienneté et 29,09% avaient une ancienneté entre 5 et 10 ans. L'indice de masse corporelle moyen des patients était de $28,61 \pm 1,46$ Kg/m² La glycémie à jeun moyenne des patients était de $1,52 \pm 0,16$ g/L. la majorité de nos patients (65,45%) avaient une hémoglobine glyquée supérieure à 7%. L'hémoglobine glyquée moyenne était de $8,39 \pm 0,60\%$. Il a été révélé une association significative entre le déséquilibre glycémique et les complications cardiovasculaires ($p=0,03$).

Conclusions: la majorité des patients diabétiques consultant en médecine externe au CNHU était en déséquilibre glycémique.

ID:82

Topic: *AS01 Universal Health Care / 1.3 Public health education*

PEAK INSPIRATORY FLOW RATES ASSESSMENT AND SPIROMETRIC PARAMETERS AMONG PATIENTS WITH ASTHMA IN SOUTH-WESTERN NIGERIA

A. Arawomo¹, G. Erhabor², M. Tanimowo³, O. Awopeju², O. Adewole²

¹UniOsun Teaching Hospital, Department Of Medicine, Osogbo, Nigeria, ²Obafemi Awolowo University, Department Of Medicine, Ile Ife, Nigeria, ³Ladoke Akintola University of Technology, Department Of Medicine, Ogbomoso, Nigeria

Background: Peak inspiratory flow rates (PIFR) generated by patients have been found to be crucial in effective drug delivery from dry powder inhalers (DPIs) and useful in the selection of appropriate inhaler devices. This study evaluated the PIFR among patients with asthma and compared it with that of healthy individuals with a view to assessing the adequacy of PIFR for DPI prescription.

Methods: A descriptive cross-sectional study was done among 60 patients with asthma and 60 age-and-sex-matched healthy volunteers. PIFR was measured using the In-Check Dial Meter, a device that simulates the internal resistances

of DPIs, and Spirometry, including spirometric PIFR, was done for all participants. PIFR was categorized as suboptimal (<60L/min) or optimal (\geq 60L/min).

Results: The mean age of the asthma patients and controls were both 39.4 ± 17.3 years, respectively, with 66.7% of respondents being females. The FEV1% among asthmatics was 82.75% compared to 99.73% in healthy controls ($p < 0.001$). PIFR by In-Check Dial was significantly lower in the internal resistances against Clickhaler, Autohaler and Easihaler in asthmatics compared with controls (64.57 vs 75.55, $p < 0.001$; 87.52 vs 98.85, $p = 0.003$; 102.70 vs 111.22, $p = 0.041$). The mean Spirometric PIFR was also lower in the asthma group (420.5 ± 78.3 L/min) compared to healthy controls (436.47 ± 79.65 ; $p = 0.656$). Suboptimal PIFR was found in the simulated resistances against Clickhaler and Turbuhaler (28.3% and 23.3%; $p < 0.001$) compared to Accuhaler, Autohaler, and Easyhaler (3.3%, 8.3%, and 3.3% respectively, $p < 0.001$) among asthma patients. Spirometric PIFR had a significant positive correlation with the PIFR from Clickhaler, Accuhaler, Turbuhaler, and Autohaler among asthma patients.

Conclusions: This study shows that majority of patients with asthma can achieve adequate inspiratory flow to activate their DPIs. However, a certain proportion has suboptimal PIFR and routine assessment should be done to identify such patients, in order to prescribe appropriate DPIs for them.

ID:80

Topic: *AS02 Age-related healthcare / 2.2 Adolescent health*

COHORT ANALYSIS OF ADOLESCENT TUBERCULOSIS LOSS TO FOLLOW-UP AND ASSOCIATED FACTORS IN THE GREATER BANJUL AREA OF THE GAMBIA, WEST AFRICA; A CROSS-SECTIONAL SURVEY

O. Owolabi¹, A. Secka¹, M. Sonko¹, I. Loum¹, I. Sanneh¹, A. Touray¹, S. Badjie¹, S. Barry¹, A. Wurrie², O. Cham¹, A. Sillah¹, J. Sutherland¹

¹Medical Research Council Gambia @ London School of Hygiene and Tropical Medicine, Vaccine And Immunity Theme, Banjul, Gambia, ²National Tuberculosis and Leprosy control program, Tuberculosis Control, Banjul, Gambia

Background: There is an increased risk of Tuberculosis (TB) during adolescence (10- 19 years). TB in adolescents and young adults (20- 24 years) compared to older adults (\geq 25 years) has been neglected until recently. The global annual burden of TB in young people (10- 24 years) was estimated at 1.8 million. We describe the clinical characteristics and outcomes among adolescents with TB and compare loss to follow-up (LTFU) rates with that among young adult and older adult TB cases.

Methods: A retrospective review of TB registers of five DOTS centers, TB hotspots, in the Greater Banjul Area (GBA) of The Gambia from 1st January to 31st December 2020. The clinical characteristics and treatment outcomes from the registers were compared among adolescents, youths and a systematic sample of every third adult (\geq 25 years). Logistic regression analyses were used to investigate risk factors for LTFU.

Results: We analysed 149 adolescents, 231 young adults, and 360 older adult newly diagnosed TB patients. Older adults (14.7%) and adolescents (11.4%) had a higher documented HIV seropositivity than youths (4.8%), $p = 0.001$. Adolescents had the highest rate of LTFU (9.4%) than young adults (3.5%) and adults (3.9%), $p = 0.016$. HIV negative TB patients had four times increased risk of LTFU than HIV positive (OR 4.5, 95% CI 0.6- 33.2, $p = 0.14$). In a multivariable model, adolescent (OR 2.7, 95% CI 1.2- 5.9, $p = 0.014$) and extra-pulmonary TB (OR 4.4, 95% CI 1.3- 14.9, $p = 0.020$) were each associated with LTFU. HIV uninfected and smear negative TB had a higher risk of LTFU but were not significantly associated respectively (OR 4.4, 95% CI 0.6- 32.9, $p = 0.15$; OR 1.2, 95% CI 0.6- 2.6, $p = 0.61$).

Conclusions: Adolescents treated for TB had greater LTFU than young and older adults. Adolescent friendly TB clinic that promotes retention on treatment for a successful treatment outcome advocated.

ID:79

Topic: AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections

THE ROLE OF FAMILY SOCIO-BIOMEDICAL FACTORS ON COMPLIANCE WITH COVID-19 PUBLIC HEALTH PREVENTIVE DIRECTIVES IN A MEDICALLY CHALLENGED CONTEXT OF SOUTH-EASTERN NIGERIA

G. Iloh¹, M. Chukwuonye², B. Akodu³, M. Okwejie⁴

¹FMC Umuahia And Rhema University Aba, Family Medicine, Umuahia, Nigeria, ²Federal Medical Centre, Umuahia, Abia State, Nigeria, ¹department Of Family Medicine, UMUAHIA, Nigeria, ³Lagos University Teaching Hospital & University of Lagos, Department Of Family Medicine & Department Of Community Health And Primary Care, LAGOS, Nigeria,

⁴University of Calabar Teaching Hospital, Nigeria, Department Of Family Medicine, Calabar, Nigeria

Background: COVID-19 pandemic has presented an unprecedented challenge to the healthcare of families across the world. Although, the awareness of COVID-19 public health(PH) preventive directives is increasing in Nigeria there remains a large gap between awareness and compliance with these directives by families in Nigeria.

Methods: This was a cross-sectional study carried out on 400 adults from April to May 2020 in South-eastern Nigeria. Data were collected using structured, pretested and researcher administered questionnaire which elicited information on family socio-biomedical variables, compliance with PH preventive directives [face masks, alcohol-based hand sanitizers, hand washing with soap and water, physical distancing and face shields,]. Compliance was assessed in the previous 7 days and graded using an ordinal scoring system of 0-4. Score of 4 indicated compliances while scores of 0-3 meant non-compliance.

Results: The age range of the participants was 18-84 years[mean=53 (\pm 11.6)]. There were 214(53.5%) females. The most commonly complied PH preventive directives was use of face masks(74.5%). Others were use of hand sanitizers(60.3%), hand washing with soap and water(58.5%), use of face shields(42.3%) and physical distancing(39.3%) Family socio-biomedical factors associated with compliance with the use of face masks were family belief in COVID-19 infection($P < .00001$), older age($P < .00001$), family communication on COVID-19 infection($P = .00001$), and having a family member with diabetes($P = .0048$). The most significant predictor of compliance with face masks was family belief in COVID-19 infection($P = .012$).

Conclusions: This study has shown the pattern of compliance with COVID-19 PH preventive directives with the most complied directive being the use of face masks and the least physical distancing. Compliance with the use of face masks was associated with family belief and communication on COVID-19 infection, older age and having a family member with diabetes. Widespread family friendly COVID-19-related health education and promotion are recommended in order to entrench culture of use.

ID:77

Topic: AS02 Age-related healthcare / 2.2 Adolescent health

GASTROINTESTINAL TRACT MALIGNANCIES IN ADOLESCENTS AND YOUNG ADULTS: THE IBADAN EXPERIENCE

I. Nwanji, O. Adegoke, O. Ogunbiyi

University College Hospital, Ibadan, Department Of Pathology, Ibadan, Nigeria

Background: Gastrointestinal tract (GIT) tumours are predominantly seen among middle aged and elderly persons. However, there are reports of an increasing incidence among adolescents and young adults. We sought to describe the characteristics of malignancies involving the GIT among patients aged 10-35 years.

Methods: A retrospective review of all histologically diagnosed cases of malignancies, diagnosed at our centre between January 2010 and December 2019 and involving the stomach, small intestine, colon and anal canal was undertaken. Patients between the ages of 10 and 35 years were identified (using the UNICEF definition for adolescents [10-19 year] and the African Youth Charter definition for young persons [15-35 years]). Demographic data and tumour characteristics were examined.

Results: There were a total of 79 cases of GIT tumours seen in adolescents and young adults. This amounted to 14.2% of total GIT malignancies involving these sites. The male female ratio was 1: 1.1. Majority (66%) of patients were between 25 and 35 years of age. Adolescents were involved in 14% of cases. Colonic malignancies predominated, accounting for 75% of cases. Tumours of the anal canal, stomach and small intestine accounted for 9%,9% and 7% of cases respectively. Adenocarcinomas were the most common tumours of the GIT seen, accounting for 87% of cases, followed by Non Hodgkin Lymphomas which accounted for 6% of cases. Two cases of gastrointestinal stromal tumours of gastric origin were seen accounting for 2.5% of cases.

Conclusions: Gastrointestinal tract tumours affecting adolescents and young adults are not uncommon. Majority of these tumours are adenocarcinomas and affect the colon. Genetic analysis to determine the frequency of Lynch syndrome and other inherited cancer genes may shed more light on predisposing factors among this subset of patients.

ID:76

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

SOCIOECONOMIC STATUS AND ACCESS TO HEALTHCARE IN OBIO/AKPOR LOCAL GOVERNMENT AREA (LGA), RIVERS STATE, NIGERIA

S. Uria¹, O. Omitola², U. Oguzor¹

¹Rivers State University Teaching Hospital (RSUTH), Family Medicine, Port Harcourt, Nigeria, ²University of Port Harcourt, Oral Pathology & Oral Biology, Port Harcourt, Nigeria

Background: Good health is one of the requirements and expectation of every nation that care for the welfare of her citizens and hence an indicator of productive life, socially and economically balanced society. It has been argued that access to healthcare facilities could be determined in terms of, availability of medical industry in an area, location of healthcare facilities, quality of services offered by health workers and affordability of medical bills. Socio-economic status (SES) can be looked upon as class standing of an individual or group. This study examined the relationship that exists between SES and access to healthcare.

Methods: The study was done at five (5) Model Primary Health Centres (MPHC), drawn by ballot from the pool of 14 MPHC, using a cross sectional quasi experimental design. The sample size of 212 respondents was proportionally and statistically distributed among the five selected MPHC. The data were generated with an interviewer administered semi-structured questionnaire. Analysis was done with SPSS (17.0) package.

Results: Female gender (60%) are the majority, with most of the respondent within aged 31-40 years. Majority of the respondent were educated. The socio-economic characteristics that were significantly associated with access to healthcare were education ($\rho = 0.493$; p -value = 0.000), income level ($\rho = 0.249$; p -value = 0.000); gender ($\rho = 0.940$; p -value = 0.000). The study showed no significant association between access to healthcare and geographical location ($\rho = -0.079$; p -value 0.254).

Conclusions: The study revealed that SES is significantly related to access to healthcare; and healthcare facilities should be located nearer to the people with minimal class and political considerations that may disadvantage the poor masses. The influence of socio-economic and cultural factors on the use of health facilities is not only a threat to health status of individuals but also a threat to national development.

ID:75

Topic: *AS05 Epidemic and Pandemic health care / 5.4 Community engagement in epidemic/pandemic situations*

HOUSEHOLD CHARACTERISTICS OF SNAKEBITE VICTIMS IN KALTUNGO LOCAL GOVERNMENT, GOMBE, NORTHEAST, NIGERIA

H. Maizare¹, R. Ibrahim², S. Umar³, A. Ahmad⁴, M. Gadanya⁵, A. Girei⁶, Y. Ismaila², S. Panda⁷

¹Aminu Kano Teaching Hospital, Community Medicine, Kano, Nigeria, ²Gombe state University, Community Medicine, Gombe, Nigeria, ³Gombe state University, Department Of Ophthalmology, Gombe State University Federal Teaching Hospital Gombe, Nigeria, ⁴Abubakar Tafawa Balewa University, Community Medicine, Bauchi, Nigeria, ⁵Bayero University Kano/Aminu Kano Teaching Hospital, Community Medicine, Kano, Nigeria, ⁶Gombe State University, Gombe, Nigeria, ⁷Gombe State University, Anaesthesia, Gombe, Nigeria

Background: Snakebite is a neglected tropical disease with higher prevalence in rural communities of tropical and sub-tropical countries. The study aimed to determine the household characteristics of snakebite victims and its influence on the outcomes of the snakebite.

Methods: A using a cross-sectional descriptive study, 398 participants were selected using a multistage sampling technique. Data was collected using pre-tested, structured interviewer administered questionnaires and analyzed using SPSS version 23. A P-value of <0.05 was considered to be statistically significant

Results: The mean age of the respondents was 30 ± 5.4 years. Most 90.5% were self-employed and 44.0% earned less than N18000 per month. Less than half (45.0%) live in brick houses and upto 38.9% of the participants sleeps on the floor and 18.8% walks around barefooted. Occupation and household characteristics were found to have statistically significant association with snakebite.

Conclusions: The study highlighted occupation and household characteristics as predisposing factors to snakebite. Thus, improvement in the living conditions of the rural dwellers will drastically reduce the prevalence of snakebites.

ID:74

Topic: *AS01 Universal Health Care / 1.3 Public health education*

LES INFECTIONS DU MEMBRE THORACIQUE CHEZ LE PATIENT DIABÉTIQUE AU CENTRE NATIONAL HOSPITALIER ET UNIVERSITAIRE HUBERT KOUTOUKOU MAGA-CNHU-HKM DE COTONOU

A. Kerekou Hodé, A.H. Dedjan
CNHU, Endocrinology, Cotonou, Benin

Background: Les infections du membre thoracique chez le patient diabétique sont moins connues que les infections du pied diabétique. Le but de notre travail est de décrire les caractéristiques cliniques, paracliniques et thérapeutiques des infections du membre thoracique du diabétique.

Methods: Il s'agissait d'une étude descriptive et analytique incluant tous les patients diabétiques hospitalisés pour infection du membre thoracique de janvier 2018 à décembre 2020

Results: Au total 11 patients ont été hospitalisés pour infection du membre thoracique pendant la période d'étude. La prédominance féminine était nette avec une sex-ratio de 0,57. L'âge moyen des patients était de 48,18 ans. L'ancienneté moyenne du diabète était de 10,54 ans. Le facteur déclenchant était traumatique dans 8 cas et inconnu dans 3 cas. La localisation au niveau des mains était prédominante dans 10 cas. Une localisation au niveau de la main et de l'avant-bras droit a été retrouvée. Il s'agissait de 4 cas de panaris, 6 cas de phlegmon et un cas de fasciite nécrosante. La glycémie moyenne était de 2,67g/l. L'hémoglobine glyquée moyenne était de 14,36%. Les prélèvements bactériologiques réalisés chez 9 patients avaient identifié le *Staphylococcus aureus* dans 2 cas et sont revenus stériles dans 7 cas. L'amputation de doigts a été faite chez 2 patients. Un décès par choc septique a été enregistré.

Conclusions: Les infections du membre thoracique chez le diabétique peuvent engager le pronostic fonctionnel du membre voire le pronostic vital. Une prévention de ces lésions se justifie au même titre que les pieds diabétiques.

ID:209

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*
POST-PULMONARY TUBERCULOSIS TREATMENT OUTCOMES IN PERSONS LIVING WITH HIV FROM SELECTED TREATMENT CENTRES, ACCRA, GHANA

I. Asamoah

Korle-bu Teaching Hospital, Department Of Medicine And Therapeutics, Accra, Ghana

Background: Tuberculosis (TB) is the commonest opportunistic infection among Persons living with HIV (PLHIV). It is associated with structural and functional lung disorders despite successful tuberculosis treatment. There is however limited data on post-TB lung disorders from PLHIV. This study evaluated structural and functional lung abnormalities in PLHIV within six months of completing TB treatment.

Methods: A cross-sectional study was conducted among PLHIV aged 18 years and above in six health facilities in Ghana. Demographic and clinical data before and during TB treatment were collected. All participants underwent chest X-ray (CXR) imaging and spirometry after TB treatment. The CXRs were reported as normal/abnormal and lung function was classified as normal, restrictive, obstructive or combined obstructive-restrictive patterns.

Results: Of 213 PLHIV who initiated pulmonary tuberculosis (PTB) treatment between June 2018-May 2019, 112 (59.6%) were alive within six months of completing TB treatment. Ninety-four of them were included in the study, 39 (41.2%) were males. The mean age of participants was 42.25 years (SD: ± 9.98). While the majority of the participants (84%) had never smoked, both structural and functional lung abnormalities were present in 39 (41.5%) participants. The prevalence of structural abnormalities was 56.7%, functional abnormalities being 67.8% with 28.7% of participants with structural abnormalities (27/53) having reticular infiltration. The radiographic abnormalities were not mutually exclusive. Participants with smear-positive PTB (SpPTB) were more likely to have radiographic abnormalities (aOR=3.98; p-value=0.004) than smear-negative PTB (SnPTB) participants. Participants' viral load at the time of the study did not influence the type of post-TB treatment lung abnormality (p-value=0.800).

Conclusions: A high burden (79.8%) of structural or functional lung abnormalities was present among a predominantly young and non-smoking PLHIV after completion of TB treatment. There is therefore the need for routine post TB treatment completion screening and the provision of appropriate rehabilitative services for these disorders.

ID:23

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*
COVID- 19 AND SICKLE CELL DISEASE. AUTOPSY FINDINGS OF THREE DEATHS AT THE 37 MILITARY HOSPITAL, ACCRA, GHANA. (CASE SERIES)

S. Attoh¹, E. Sarkodie², A. Benneh-Akwasi Kuma², A. Toppar³, L. Edusei¹, P. Akakpo¹

¹37 Military Hospital, Anatomical Pathology, Accra, Ghana, ²37 Military Hospital, Haematology, Accra, Ghana, ³37 Military Hospital, Medicine, Accra, Ghana

Introduction: The main pathological effects of COVID-19 infection have been reported to occur in the lungs with the most pronounced manifestation being reported as Adult Respiratory Distress Syndrome (ARDS) with thromboembolic phenomena. Sickle Cell Disease (SCD) is a common genetic disorder present in 2% of newborns in Ghana. The complications of SCD include Vaso-Occlusive Crisis and Acute Chest Syndrome which primarily manifest in the lungs. The effects of SCD on the progression of COVID-19 have not been extensively and clearly documented in literature.

Objective: To describe the clinical and pathological findings in three SCD patients who died of COVID-19 related complications.

Short Case: A complete autopsy was performed for each of the three SCD patients who were presumed to have COVID-19. Lung swabs were subsequently taken and tested for SARS-CoV-2. The differences in histopathological findings of the three cases were highlighted and correlation with clinical findings was also done. Lung histopathological findings for all three cases were consistent with Acute Respiratory Distress Syndrome

(ARDS)/ Diffuse Alveolar Damage (DAD) described for infections with COVID-19 and lung swabs tested for SARS-CoV-2 by real time Reverse Transcription Polymerase Chain Reaction (rRT-PCR) were positive
Conclusions: Though SCD has been reported not to adversely affect an individual's chance of worse outcome when infected with COVID-19, our findings suggest otherwise. We suggest that SCD may be an important co-morbidity that needs to be considered in COVID-19 patients and when present needs to be considered as an adverse risk for poor outcomes. Also, post-discharge anti-coagulation and monitoring should be encouraged. More autopsies are required to fully understand the pathogenesis of COVID-19 in SCD patients.

ID:60

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*
ECHOCARDIOGRAPHIC, IMAGING AND BIOCHEMICAL PROFILE OF PATIENTS WITH COVID-19 INFECTION IN A PRIVATE MULTI-SPECIALIST HOSPITAL IN ABUJA, NIGERIA: A RETROSPECTIVE DESCRIPTIVE STUDY.

K.K. Okorie¹, O.K. Ajiboye¹, E. Ogedegbe¹, C.H. Onwukwe², A.K. Ofia³, P. Uhunamure¹

¹*Cedarcrest Hospitals, Department of Medicine, Abuja, Nigeria,* ²*Al Isawiya General Hospital, Directorate of Al Gurayat, Ministry of Health, Department of Medicine, Al Issawiya, Saudi Arabia,* ³*College of Health Sciences, Nnamdi Azikiwe University, Department of Medicine, Awka, Nigeria*

Background: The emergence of corona virus disease 2019(COVID-19) in December 2019 caused by a novel severe acute respiratory syndrome coronavirus 2 occurred in Wuhan, China and first reported in Nigeria on February 27th, 2021, has threatened global health. The SARS-CoV-2 is transmitted via aerosols through the upper respiratory tract via ACE-2 receptors. It subsequently triggers a 'cytokine storm' characterized by severe systemic inflammation and prothrombotic effects especially in severe disease. Globally, in the last few months multiple reports have described a wide range of imaging and biochemical abnormalities in patients with COVID-19. Nigerian data on echocardiographic, imaging, and biochemical profile of patients with COVID-19 infection are scarce. This study sought to describe the pattern of these variables.

Methods: This was a retrospective descriptive study that involved 121 COVID-19 patients at Cedarcrest Hospitals Abuja, between September 2020 and March 2021. Clinical, biochemical, echocardiographic and CT Chest imaging data of patients were extracted retrospectively from electronic medical records of COVID-19 positive patients. Statistical analysis was done using appropriate statistical software. P- value of < 0.05 was taken as statistically significant for this study.

Results: 13% of patients had normal LV systolic function, 80% had low normal LV systolic dysfunction, 4% had mild LV systolic dysfunction while 3% had moderate LV systolic dysfunction. 12% of the patients had evidence of LV diastolic dysfunction. 66% of the patients had features of atypical pneumonia characteristic of COVID -19 pneumonia on CT chest imaging, while 29% had normal imaging, 5% had features of typical bacterial pneumonia. 69% of the patients had elevated CRP. 85% of these patients had elevated D-dimer. There was a strong statistically significant linear negative correlation between LVEF, CRP and ESR.

Conclusions: This study showed that cardiovascular and respiratory abnormalities are prevalent among Nigerians with COVID -19 infection. It also shows an association between increased levels of inflammatory markers and LV dysfunction.

ID:64

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

SERUM ZINC CONCENTRATION AND THE PREVALENCE OF ZINC DEFICIENCY AMONG UNDER-FIVE CHILDREN IN SELECTED RURAL AND URBAN COMMUNITIES IN KADUNA STATE: A COMPARATIVE ANALYSIS

R. Oguntunde¹, S. Idris¹, M. Jibril², O. Oguntunde³

¹*Ahmadu Bello University Teaching Hospital Teaching Hospital, Community Medicine, Zaria, Kaduna State, Nigeria,*
²*Ahmadu Bello University Teaching Hospital Teaching Hospital, Chemical Pathology, Zaria, Kaduna State, Nigeria,* ³*Bingham University, Community Medicine, Karu, Nasarawa State, Nigeria*

Background: Serum zinc concentration is one of the recommended zinc biomarkers for research, clinical, and program use. It is considered a valid estimate of zinc status and this makes it a useful biomarker of zinc status, especially for assessing the risk of zinc deficiency in populations. Zinc deficiency is a major public health problem in middle and low-income countries including Nigeria and contributes significantly to morbidity and mortality among children under-five years. This study assessed and compared serum zinc levels and determined the prevalence of zinc deficiency among children under five in selected rural and urban communities in Kaduna State, north–west Nigeria.

Methods: Using a comparative cross sectional design, a total of 312 under-fives aged 6-59 months; 156 each from one rural and one urban Local Government Area were randomly selected via multistage sampling technique and their blood samples were taken.

Results: Mean serum zinc concentration among under-fives in the rural areas was 86.18 ± 0.27 mg/dl [95%CI 81.39 – 90.97] and 88.00 ± 26.87 mg/dl [95%CI 83.75 – 92.25] in the urban areas. The mean difference was not statistically significant ($p=0.575$). The study found an overall zinc deficiency prevalence of 24% (serum zinc concentration <65 mg/dl) among sampled children (26.9% rural and 21.2% urban). Among the zinc deficient children, the mean serum zinc concentration was 54.17 mg/dl (± 8.48) [95% CI 51.52 – 56.81] and 51.55 mg/dl (± 8.98) [95% CI 48.36 – 54.73] in the rural and urban areas respectively ($p=0.233$).

Conclusions: Zinc deficiency among children in both rural and urban areas of Kaduna State remains an issue of public health concern and calls for a need to intensify efforts to improve their zinc status and overall well-being. This will include interventions such as educational campaigns to improve dietary diversification and uptake of zinc supplementation among caregivers and food fortification as well.

Key words: serum zinc, zinc deficiency, prevalence, under-fives, rural, urban

ID:66

Topic: *AS05 Epidemic and Pandemic health care / 5.3 Triage and critical care*

IMPACT OF MAINTENANCE HEMODIALYSIS ON CARDIOVASCULAR RISK FACTORS IN CHRONIC KIDNEY DISEASED PATIENTS IN NIGERIA: A LONGITUDINAL STUDY

K.K. Okorie¹, C.H. Onwukwe², C.U. Osuji³, A.K. Ofia³

¹*Cedarcrest Hospitals, Department of Medicine, Abuja, Nigeria,* ²*Al Isawiya General Hospital, Directorate of Al Gurayat, Ministry of Health, Department of Medicine, Al Issawiya, Saudi Arabia,* ³*College of Health Sciences, Nnamdi Azikiwe University, Department of Medicine, Awka, Nigeria*

Background: Chronic kidney disease (CKD) is a major cause of cardiovascular morbidity and mortality worldwide and accounts for a significant proportion of deaths in hospitals across Nigeria and most parts of Africa. Maintenance hemodialysis is the major form of Renal replacement therapy and may have a significant impact on cardiovascular risk factors in CKD patients. The aim of this study is to determine the impact of maintenance hemodialysis on common cardiovascular risk factors (left ventricular hypertrophy (LVH), left ventricular ejection fraction (LVEF), high Calcium phosphate product, hypoalbuminemia, anemia and dyslipidemia).

Methods: This is a descriptive longitudinal study involving 40 CKD patients on maintenance hemodialysis followed up over a 3 month period after initiation of maintenance HD (3days/week), at the Nephrology clinic of Nnamdi Azikiwe Teaching Hospital Nnewi Anambra State, Nigeria. The means of left ventricular mass index (LVMI), LVEF,

lipid fractions, hemoglobin(Hb), serum albumin, and calcium-phosphate levels were assessed at baseline(pre-dialysis) and at 3 months after maintenance HD sessions(3times/week). P value of < 0.05 was taken as significant for this study.

Results: The means of serum calcium -phosphate product, plasma total cholesterol (TC), triglycerides (TG), and plasma low density lipoprotein (LDL-C) were significantly higher at baseline, than at three months; while the means of haemoglobin, serum albumin and plasma high density lipoprotein (HDL-C) were significantly lower at baseline than at three months($p<0.01$). There were significant differences in echocardiographic indices at baseline and at three months in study participants. Left ventricular mass and left ventricular mass index were significantly higher at baseline than at three months($P<0.01$); while left ventricular ejection fraction was significantly lower at baseline than at three months($p<0.01$).

Conclusions: There was a reduction in the means of cardiovascular risk factors studied among the CKD patients after three months on maintenance hemodialysis. Early and effective maintenance hemodialysis may go a long way to reduce cardiovascular risk, mortality and morbidity in CKD patients

ID:67

Topic: *AS03 Vaccines / 3.1 Vaccine acceptance and hesitancy*

FACTORS AFFECTING THE UPTAKE OF COVID-19 VACCINE AMONG HOSPITAL WORKERS IN A PSYCHIATRIC HOSPITAL IN WEST AFRICA

O. Opabola, M. Motojesi, O. Alalade, I. Adesina, T. Lasebikan
Federal Neuropsychiatric Hospital, Yaba, Lagos, Psychiatry, Lagos, Nigeria

Background: Following the Covid-19 pandemic, scientists swung into action and developed the coronavirus vaccine. Being a novel virus, various quarters raised various concerns about the vaccine. Some of these concerns affected the reception of the vaccine by different individuals. Hospital workers were not exempted from these concerns. This study aimed to determine the knowledge, attitude and uptake of the Covid-19 vaccine among the hospital workers in a psychiatric hospital in Lagos, Nigeria.

Methods: It was a cross-sectional survey carried out between 14th April and 14th May 2021 among the hospital workers. 400 questionnaires were sent out and 272 were returned appropriately filled, which accounted for a 70.8% response rate.

Results: The most common sources of information about the vaccine were the television (46.7%) and social media (57.4%). Factors that were noted to be responsible for hesitancy in receiving the vaccine included worry of side-effects (44.1%), concern about the rapidity of development of the vaccine (43%), lack of trust in government to provide quality vaccines (36.4%) and in the handlers of the vaccine (26.5%) as well as in the pharmaceutical companies producing the vaccines (23.2%). Almost three-quarters of the respondents (72.8%) took the vaccine, with doctors (93.1%) and pharmacists (86.5%) being significantly more likely to take the vaccine compared to the hospital workers ($\chi^2=20.92$; $p<0.01$).

Conclusions: There is still some level of hesitancy surrounding the use of the Covid-19 vaccine, even among health professionals, especially with people getting information about the vaccine from many unverifiable sources. Public health campaigns will help correct misinformation and build trust, resulting in more uptake of the vaccine.

ID:86

Topic: *AS01 Universal Health Care / 1.3 Public health education*

EFFECT OF NUTRITION EDUCATION ON DIETARY DIVERSITY AMONG HIV CLIENTS IN SOUTHEAST, NIGERIA

I. Ezenwosu¹, U. Ezenwugo¹, M. Ajuba²

¹University of Nigeria Teaching Hospital, Ituku-Ozalla Enugu, Community Health, Enugu, Nigeria, ²Enugu State University College of Medicine, Parklane, Enugu, Nigeria, Community Health, Enugu, Nigeria

Background: Integrating nutrition interventions which include nutrition education in HIV/AIDS care program helps people living with HIV/AIDS (PLWHA) make better decisions regarding their nutrition to improve their immune system. This study determined the effect of nutrition education on dietary diversity among HIV/AIDS clients in Southeast, Nigeria.

Methods: A quasi-experimental study was conducted among 370 HIV clients at the University of Nigeria Teaching Hospital (UNTH) and Enugu State University Teaching Hospital (ESUTH) Enugu. HIV clients in UNTH served as the intervention group while ESUTH was the control group. The nutrition education program consisting of 4 sessions was delivered for two months to the intervention group. In both groups, their practice of dietary diversity was ascertained pre and post-intervention. The Chi-square test and McNemar were used in the analysis.

Results: Practice of dietary diversity was low among 79(42.7) and 69(37.3) respondents in the study and control groups respectively ($\chi^2=1.126$, $p=0.289$). Three months after the intervention, the proportion of respondents with low dietary diversity significantly decreased from 42.7% to 22.7% in the study group while the control group had no appreciable reduction ($\chi^2=7.532$, $p=0.006$).

Conclusions: Nutrition education plays a positive role in the dietary diversity of PLWHA. This suggests that nutrition education should be a key component in the care of PLWHA for a better nutritional outcome

ID:91

Topic: *AS03 Vaccines / 3.1 Vaccine acceptance and hesitancy*

PREDICTORS OF KNOWLEDGE OF HPV INFECTION AND VACCINE AMONG PARENTS OF ADOLESCENT IN KANO METROPOLIS, NIGERIA

A. Musa

Abubakar Tafawa Balewa University Teaching Hospital Bauchi State Nigeria, Community Medicine, Bauchi, Nigeria

Background: Introduction: Human papillomavirus (HPV) is one of the most common sexually transmitted infections in both men and women and has been implicated as a cause of the majority of cases of cervical cancer, which is the second most common cancer of women in Nigeria. HPV is preventable with the use of HPV vaccines. The study assessed predictors of knowledge of HPV infection and vaccine among parents of adolescent in Kano Metropolis, Nigeria.

Methods: A comparative descriptive cross-sectional study was conducted among 434 respondents. Multistage sampling technique was employed to select the respondents and pretested, interviewer-administered questionnaire was used for data collection. Data analysis was done using SPSS version 20.0, statistical significance was set at $p < 0.05$.

Results: The mean \pm (standard deviation) ages of the respondents were 44.6 ± 11.46 and 44.7 ± 11.10 years, respectively. The respondents' Knowledge of HPV infection and vaccine for the male parents and female parents were 26.3% and 22.3% respectively. There was significant association between knowledge of HPV infection and vaccine and the age; educational status; occupation and the monthly income of the respondents. After adjusting for confounders the independent predictors of knowledge of HPV infection and vaccine were educational and occupational status.

Conclusions: Knowledge of HPV infection and vaccine among parents of adolescents was generally poor; there is need for conducting health education to improve the knowledge of HPV infection and vaccine.

Keywords: HPV, vaccine, knowledge, parents, Kano

ID:97

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

ZINC STATUS, ANTHROPOMETRIC INDICES AND DIETARY DIVERSIFICATION OF UNDER-FIVE CHILDREN IN SELECTED RURAL AND URBAN COMMUNITIES IN KADUNA STATE, NORTH-WEST NIGERIA: A COMPARATIVE CROSS-SECTIONAL STUDY.

R. Oguntunde¹, S. Idris¹, M. Jibril², O. Oguntunde³

¹*Ahmadu Bello University Teaching Hospital Teaching Hospital, Community Medicine, Zaria, Kaduna State, Nigeria,*

²*Ahmadu Bello University Teaching Hospital Teaching Hospital, Chemical Pathology, Zaria, Kaduna State, Nigeria,* ³*Bingham University, Community Medicine, Karu, Nasarawa State, Nigeria*

Background: Zinc deficiency is a major public health problem in Nigeria as it contributes significantly to stunting, diarrhea, and other morbidities among under-five children. This study assessed and compared serum zinc levels, anthropometric indices and dietary diversification of children under-five in selected rural and urban communities in Kaduna State, north-west Nigeria.

Methods: Using a comparative cross sectional design, the study sampled a total of 312 under-fives aged 6-59 months; 156 each from a rural and an urban Local Government Area and their respective caregivers. Data on socio-demographics and dietary diversity were collected using semi-structured interviewer administered questionnaire using Open Data Kit (ODK) installed on android devices. Anthropometric indices and venous blood samples were also collected from each child.

Results: The study found an overall zinc deficiency prevalence of 24% among sampled children [26.9% rural versus 21.2% urban (p=0.233)]. Overall, stunting prevalence was 47.4% (Rural=52%; Urban=42%), with the prevalence of zinc deficiency among stunted children being higher than among children who were not in both rural and urban areas [34.2% versus 18.9% rural and 22.7% versus 20.0% urban (p=0.049)]. Similarly, the prevalence of zinc deficiency was also higher among children with poor than with good dietary diversity in both rural and urban areas (p=0.608).

Conclusions: The prevalence of zinc deficiency among under-five children, though higher in rural communities, remains significantly high in both rural and urban communities in Kaduna State and so remain an issue of public health importance. In addition, zinc status was not a potent predictor of stunting. Caregivers and other key stakeholders should be enlightened about the importance of dietary diversification in meeting up with essential nutrient requirements for growth and development of their children. Rearing of domestic animals for local consumption should be encouraged which are rich source of bio-available zinc.

Keywords: zinc deficiency, stunting, dietary diversity, under-fives, rural, urban

ID:124

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

PERSON-CENTRED INNOVATIONS FOR FAMILY MEDICINE AND COVID-19: A SHORT REPORT

D.O. Darko

Nyaho Medical Centre, Medical Department, Accra, Ghana

Introduction: COVID-19 was first diagnosed in Ghana in March 2020 and currently a third wave is raging on. This is a short report of some person-centered innovations made by Nyaho Medical Centre and family medicine residents to Ghana's fight.

Short Case: Specific innovations include setting up a PCR lab, public education on social media handles, telemedicine consultations - telephone and video done within the first six months of the pandemic. Nyaho Medical Centre sought and became the first private facility in Ghana to be accredited for COVID-19 treatment. These contributions were very much needed as COVID-19 was a new disease and spreading fast in Ghana.

Conclusions: This is the beauty of family medicine – providing care for all, irrespective of their condition and influencing the health outcomes at the primary care level, one patient at a time in the context of his family. The strong presence of family physicians and family medicine residents in NMC was crucial in delivering on these innovations as many of us were involved in the planning and execution of healthcare. As the pandemic continues, more innovative and context-specific strategies will be necessary to fight against the COVID-19 pandemic at a global scale.

ID:128

Topic: *AS01 Universal Health Care / 1.5 Access to health services*

SATISFACTION WITH HEALTH SERVICE PROVISION AND RETENTION IN CARE AT PRIMARY HEALTH CENTERS BY PREGNANT WOMEN IN EBONYI STATE, NIGERIA

I. Eze^{1,2}, E. Ossai^{1,2}, I. Akamike^{1,2}, K. Okeagu², J. Mmahi², C. Owoh²

¹Alex Ekwueme Federal University Teaching Hospital Abakaliki, Ebonyi State Nigeria, Community Medicine, Abakaliki, Nigeria, ²College of Health Sciences, Ebonyi State University Abakaliki, Nigeria, Community Medicine, Abakaliki, Nigeria

Background: Satisfaction with health services provision at the primary health centers has been linked to social, cultural, and health system factors. However, assessment of the quality of care (QoC) has assumed increasing importance due to its usefulness in identifying gaps in service provision, guaranteeing quality assurance, and enhancing service utilization. This study assessed satisfaction with health service provision and retention in care at Primary Health Centers by pregnant women in Ebonyi State, Nigeria.

Methods: Health facility-based cross-sectional study design was conducted on 427 pregnant women randomly selected using a multi-stage sampling technique. Data were collected using an interviewer-administered validated patients' satisfaction questionnaire (PSQ-18). Satisfaction with service provision was determined by mean score >3.0 to eighteen five-point Likert-scale questions. Statistical inferences were drawn by bivariate and multivariate logistics regression analyses at a 5% level of significance.

Results: The proportion of respondents satisfied with health service was low 204(48.3%). About a half were satisfied with technical quality 218(51.7%) and interpersonal aspects of service 220(52.1%). Less than half were satisfied with communication 204(48.3%), availability/convenience of health service 164(38.9%), financial aspect 164(38.9%) with 82% spending out-of-pocket, and waiting-time 26(29.9%). Willingness to continue accessing services and recommend health facilities to others was reported by 24.4% and 16.4% of respondents respectively. Predictors of satisfaction with service provision include being single (OR=0.57, 95% CI=0.36-0.88, unemployed (OR=0.29, 95% CI=0.1-0.75), and willingness to continue utilizing service (OR=1.86, 95% CI=1.01-3.45).

Conclusions: The proportion of pregnant women satisfied with the quality of health service provision and willing to continue accessing care was low. However, satisfaction was associated with willingness to continue utilizing health services. Measures to improve financial satisfaction like operationalizing basic healthcare provision funds for affordable healthcare are advocated. Regular training of health workers on all aspects of QoC is recommended to improve satisfaction and continued utilization of lifesaving interventions by pregnant women.

ID:134

Topic: *AS01 Universal Health Care / 1.3 Public health education*

PERCEPTION AND ATTITUDE OF TEACHERS TOWARD COMPREHENSIVE SEXUALITY EDUCATION IN PRIMARY SCHOOL IN EBONYI STATE, NIGERIA

I. Eze^{1,2}, E. Ossai^{1,2}, C. Alo^{1,2}, T. Umoke², B. Ebenyi², C. Okoro²

¹Alex Ekwueme Federal University Teaching Hospital Abakaliki, Ebonyi State Nigeria, Community Medicine, Abakaliki, Nigeria, ²College of Health Sciences, Ebonyi State University Abakaliki, Nigeria, Community Medicine, Abakaliki, Nigeria

Background: Teachers are important agents for providing sexuality education (SE) to young people because of early contact and influence on their behavioral development. Yet, young people have limited access to sexual and reproductive health information and service and are highly vulnerable to negative health and social consequences. This study assessed the perception and attitude of teachers towards comprehensive sexuality education in primary schools in Ebonyi State, Nigeria.

Methods: A cross-sectional study was conducted on 427 primary school teachers randomly selected through a three-stage sampling technique. Perceptions and attitudes to sexuality education were assessed using self-administered structured five-point Likert scale questionnaires. Positive perception and positive attitude were determined by mean scores >3.0. Bivariate and multivariate logistic regression analyses were used to assess the association between variables, with the level of statistical significance set at a p-value <0.05.

Results: The majority of the respondents had positive perceptions of the provision of SE 254(60.3%), the content of SE 316(75.1%), and the benefit of SE 320(76.0%). However, a high proportion perceived the provision of SE as difficult because of limited teaching materials/books (22.0%) and poor knowledge of content and methods (21.7%). A minor proportion (12.2%) opined that school management does not permit SE in primary schools. More than two-thirds of the respondents had a positive attitude towards answering sexuality questions 227(66.8%), providing SE 303(72.3%), and advocating for SE 308 (73.2%). Predictors of positive attitude to SE include female (OR=1.80, 95% CI=1.07-3.04) and being single (OR= 0.46; 95% CI=0.27-0.79).

Conclusions: A high proportion of the respondents had positive perceptions and attitudes towards sexuality education for primary school children, and females had more positive attitudes. School authorities are encouraged to institutionalize comprehensive sexuality education in primary schools. Provision of teaching aids and regular training of teachers is recommended to improve knowledge and address gender issues affecting attitude towards sexuality education.

ID:138

Topic: *AS01 Universal Health Care / 1.3 Public health education*

THE RESPIRATORY AND CARDIOVASCULAR EFFECTS OF E-CIGARETTES FOR SMOKING: A SYSTEMATIC REVIEW

R. O'Leary¹, M. Qureshi², G. La Rosa², R. Vernooij², D. Odimegwu², G. Bertino², R. Polosa¹

¹University of Catania, Catania, Italy, Center for the Acceleration of Harm Reduction, Catania, Italy, ²University of Catania, Catania, Italy, Department of Clinical and Experimental Medicine, Catania, Italy

Background: Tobacco smoking is a major cause of morbidity and mortality globally, including in West Africa. The use of electronic nicotine delivery systems (ENDS) as a substitute for cigarettes has been proposed as a way of reducing the tobacco epidemic. However, there is a heavy debate around this proposal. Our systematic review evaluating the effects of substitution of cigarettes with electronic nicotine delivery systems (ENDS) on respiratory and cardiovascular health was undertaken to provide evidence for clinical and policy decisions.

Methods: Searches were conducted in the Scopus, PubMed, and CENTRAL Cochrane Library databases for randomized controlled trials and clinical research on human subjects. We identified and assessed 38 publications on 33 studies.

Results: The results of clinical tests were mostly not significant in the effects of ENDS within-subjects and in comparisons of ENDS and tobacco cigarettes. Where significant declines in respiratory or cardiovascular tests were found, the decline from ENDS use was lower than for tobacco cigarettes in every study. Three studies found clinically relative improvements in blood pressure and heart rate. Patients with asthma, COPD, or hypertension demonstrated improvement after switching to ENDS in studies with longer-term follow-up. There were no indications that ENDS use is unsafe.

Conclusions: Most studies found no significant effects on respiratory or cardiovascular test results, and only a few indicated limited clinical benefit. Unfortunately, almost all the studies were assessed at high risk of bias, with a small minority having some concerns of bias, while no studies were rated as at low risk of bias. Therefore, the certainty of evidence is low to very low. Consequently, we have offered substantive and detailed recommendations for future research.

ID:141

Topic: *AS01 Universal Health Care / 1.3 Public health education*

DETERMINANTS OF BREAST CANCER SCREENING PRACTICES AMONG WOMEN OF CHILD BEARING AGE IN ABAKALIKI METROPOLIS, NIGERIA

E. Ossai, I. Eze, G. Essuman, N. Nwekpa, J. Okpara

Alex Ekwueme Federal University Teaching Hospital Abakaliki, Ebonyi State Nigeria, Community Medicine, Abakaliki, Nigeria

Background: Breast cancer is of public health concern and major cause of mortality among women. The study was designed to determine knowledge of breast cancer and screening practices among women of reproductive age in Abakaliki, metropolis, Nigeria.

Methods: This was a community-based cross-sectional study. A three-stage sampling technique was used to select 401 women of reproductive age in the metropolis. Good knowledge of breast cancer was determined by proportion of respondents who correctly answered $\geq 50\%$ of thirty variables. Good breast cancer screening practice was determined by proportion of respondents who have ever practiced any two of breast self-examination, clinical breast examination and mammography.

Results: Mean age of respondents was 29.1 ± 7.3 years. A minor proportion, 6.5% has had a history of breast disease. Majority, 54.4% have interest in matters related to breast cancer. A minor proportion, 18.0% had good knowledge of breast cancer. Less than a quarter, 23.4% have ever practiced breast self-examination, 9.5% clinical breast examination and 3.5% mammography. Less than a tenth, 8.7% had good breast cancer screening practice. Predictors of good knowledge of breast cancer included having interest in matters related to breast cancer, AOR= 4.2, (95%CI: 2.0-9.0), having attained tertiary education, AOR=5.0, (95%CI: 2.4-9.8) and being in low socio-economic class, AOR=0.4, 95%CI: 0.2-8.3). Predictors of good preventive practices included being <25 years, AOR=0.2, (95%CI: 0.1-0.8), having interest in matters related to breast cancer, AOR=2.6, 95%CI: 1.1-6.5) and having attained tertiary education, AOR=4.4, (95%CI:1.1-6.5)

Conclusions: Minor proportion of respondents had good knowledge of breast cancer and good breast cancer screening practice. Efforts should be made to stimulate the interest of women in matters related to breast cancer. Women should be encouraged to practice breast self-examination. There is the need to create breast cancer awareness among the respondents.

ID:142

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

SEVERE COVID-19 PNEUMONITIS IN A YOUNG MALE WITH PREVIOUS TB AND RESULTANT LUNG SCARRING

A. Boté Casamitjana, D. Waters

MRC Unit The Gambia at LSHTM, Clinical Services Division, Fajara, Gambia

Introduction: The SARS-CoV2 global pandemic has caused extensive mortality, morbidity and social and economic disruption around the world. New variants, particularly the delta variant, combined with low levels of available vaccine have caused the worse wave of infections in West Africa to date. There are major differences in pre-existing comorbidities between populations in West Africa and other world regions, such as higher levels of tuberculosis (TB) both active and treated.

Short Case: We present a case of severe COVID-19 pneumonitis in a 36-year-old-male admitted to the Medical Research Council Clinical Services Division, Gambia. He had previously completed treatment for TB and admission chest x-ray showed features of TB scarring in addition to COVID pneumonitis. Following admission he deteriorated rapidly, requiring high levels of oxygen for 13 days. He was treated with prednisolone and prophylactic heparin, CPAP was also trialled. He gradually improved and was discharged on day 16.

Conclusions: Little is known about the implications of previous or current TB in patients who contract COVID-19 pneumonitis. This case suggests that previous lung scarring from TB may contribute to developing severe illness in

patients who become infected with SARS-CoV2. Larger population-level studies could contribute important information in this area. If previous TB predisposes vulnerability to severe COVID pneumonitis, it might be possible to address this through targeted vaccination campaigns in conjunction with existing TB services.

ID:145

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

CARVINOUS HEAMANGIOMA OF THE BREAST: RARE CASE REPORT

U. Mohammed¹, F. Kasarawa², E. Everest¹

¹*Usmanu Danfodiyo University Teaching Hospital, Sokoto, Histopathology, Sokoto, Nigeria,* ²*specialist Hospital, Sokoto, Surgery, Sokoto, Nigeria*

Introduction: Vascular proliferations of the breast comprise a spectrum of benign and malignant lesions and these are uncommon with potentially diagnostic challenges. Heamangioma is the most common non-sarcomatous vascular tumor of the breast and heamangioma of breast is rare in children.

Short Case: We report an 8-year-old female who presented with more than 6 months history of left breast mass, no history of trauma or swelling in any other part of the body. On examination there is a firm left breast upper outer quadrant mass, non-tender, not mobile. Breast ultrasound done is suggestive of precocious gynaecomastia with differential of fibro adenoma other routine investigations are within normal limit. Intra-operatively a 3X2cm firm mass of tissues that is attached to the underline surface was removed and submitted for histology which was diagnose as Cavernous heamangioma.

Conclusions: Heamangioma of the breast are rare in children therefore clinical and radiological evaluation are of particular importance before proceeding to extensive surgery to avoid complications

ID:147

Topic: *AS04 Mental health / 4.2 Child and adolescent mental health*

PREVALENCE OF ENURESIS AMONG 6–12-YEAR-OLD CHILDREN IN MAIDUGURI

H. Audu

Head of Clinicals, Karu Hospital Fcta, Behavioural Medicine Unit, FCTA, Nigeria

Background: Nocturnal enuresis is the involuntary voiding of urine on at least two nights per month for at least three consecutive months beyond the age at which bladder control is normally attained (4-6years) in the absence of congenital or acquired defects of the urinary tract. It is a common problem and can lead to important social and psychological disturbances among school children.

Methods: This study aimed at determining the prevalence of the disorder among primary school children in Maiduguri, Borno state in Northeastern Nigeria. A cross sectional study of 560 primary school children, in three different models of education namely, Government schools (Public schools), Private schools and Islamiyya (Islamic) schools, aged 6-12 years of age, the study was carried out using the schedule for affective disorder and schizophrenia (K-SADS), enuresis module.

Results: The mean age of 9.47 years and Standard Deviation (SD) of ± 1.85 , the response rate was 89%, and the prevalence rate was 27.5%. More males suffer from enuresis than females, with prevalence of 34% for males and 20% for females (N=499). This was statistically significant ($X^2=12.54$, $p<0.05$).

In this study the age specific prevalence rate for enuresis declines with increasing age: Prevalence over Age Correlation between the two variables was (-0.93) using Simple Linear Regression of Enuresis.

Conclusions: In conclusion, enuresis is a common disorder among children, and there is need to create parental awareness about the disorder, and to encourage a proper health seeking behaviour among parents. These steps will ensure the effective provision of health care interventions for the indicated cases.

ID:166

Topic: *AS05 Epidemic and Pandemic health care / 5.4 Community engagement in epidemic/pandemic situations*

CLINICAL RESEARCH ON COVID-19: PERCEPTIONS AND BARRIERS TO PARTICIPATION IN THE GAMBIA

B.A. Diallo, E. Usuf, O. Ceesay, U. D'Allessandro, A. Roca, M. Martinez-Alvarez
Atlantic Boulevard, Fajara, DCE, Banjul, Gambia

Background: The need to rapidly identify safe and efficacious drug therapies for COVID-19 has resulted in the implementation of multiple clinical trials investigating different treatment options. These are being undertaken in an unprecedented research environment and at a higher speed than ever before. It is unclear how communities perceive such activities and how such perceptions influence participation in COVID-19 clinical trials.

Methods: This is a qualitative study whose data were collected using digitally recorded Semi-Structured Interviews (SSIs) and Focus Group Discussions (FGDs). Thematic analysis was used to analyse the data.

Data were collected in Brikama and Kanifing Local Government Areas, two of the most densely populated administrative subdivisions in The Gambia, where the clinical trial was to be implemented by the MRC Unit The Gambia.

Participants: 26 males and 22 females aged between 19 and 70 years, with diverse socioeconomic profiles, participated in eight FGDs (n=36) and twelve SSIs (n=12).

Results: Fear of stigmatisation of COVID-19 patients was a recurring theme in most FGDs and SSIs, with detrimental effects on willingness to accept COVID-19 testing and home visits to follow up COVID-19 patients and their household contacts. Preserving the privacy of individuals enrolled in the study was key to increasing trial acceptability and participation. The trust in the implementing institution and its acknowledged expertise were facilitators to accepting the administration of investigational products to sick and healthy individuals.

Conclusions: COVID-19 is a stigmatising disease. Developing a research-participant collaboration through an ongoing engagement with community members is crucial for a successful enrolment in COVID-19 clinical trials. Trust and acknowledged expertise of the implementing institution are key facilitators to foster such collaboration.

ID:173

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

THE IMPACT OF SYSTEMIC HYPERTENSION ON CLINICAL OUTCOMES IN HOSPITALIZED COVID-19 PATIENTS – A SYSTEMATIC REVIEW

J.A. Ogunmodede¹, P. KOLO¹, A.J. OGUNMODEDE², B. DELE-OJO³, A.B. OMOTOSO¹, I. KATIBI¹

¹*University Of Ilorin, Medicine, Ilorin, Nigeria,* ²*university Of Ilorin Yeaching Hospital, Psychiatry, Ilorin, Nigeria,* ³*Ekiti State University, Medicine, Ado Ekiti, Nigeria*

Background: Several observational reports from different parts of the world have shown that systemic hypertension (hypertension) was the single commonest comorbid condition in hospitalized COVID-19 patients. Hypertension is also the most prevalent comorbidity reported among patients who developed severe disease, were admitted to Intensive Care Unit, needed mechanical ventilatory support, or who died on admission. The objective of this systematic review is to study the association between hypertension and specific clinical outcomes of COVID-19 disease which are development of severe COVID-19 disease, need for admission in the intensive care unit (ICU) or critical care unit (CCU), need for mechanical ventilation or death

Methods: We searched the PubMed, SCOPUS, and Google Scholar databases up till July 31, 2021 for original research articles that documented the risk factors of mortality in patients with COVID-19 using the PRISMA guideline.

Results: Two hundred and twenty articles were identified using pre-specified search criteria, of which 40 met the study inclusion criteria. Only three were prospective studies. Most studies documented hypertension as the most prevalent comorbidity, diabetes in four studies. The association of hypertension with development of severe COVID-19 disease was not conclusive among all studies. Majority of studies found no association or found associations that were not significant when confounders were removed.

Hypertension was associated with need for ICU care and need for mechanical ventilation. But association with need for ICU care was not significant after controlling for confounders. Majority of studies however found an association with mortality, but after controlling for confounders, it was significant in some authors and not with some.

Conclusions: Hypertension is the most common co-morbidity in COVID-19. It affects the clinical course and outcome of COVID-19 disease in many cohorts, but this appears to be influenced by other confounding factors like age and presence of other comorbidities.

ID:187

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

RAPID DIAGNOSIS OF GROUP A STREPTOCOCCAL PHARYNGITIS IN CHILDREN AT THE FEDERAL TEACHING HOSPITAL GOMBE

A. Girbo¹, I. Jalo², E. Isaac³

¹*Gombe State University/Federal Teaching Hospital Gombe, Paediatrics, Gombe, Nigeria,* ²*Federal Teaching Hospital Gombe, Paediatrics, Gombe, Nigeria,* ³*Gombe state university/Federal Teaching Hospital Gombe, Paediatrics, Gombe, Nigeria*

Background: Although, throat swab cultures still remain the gold standard for the laboratory confirmation of Group A Streptococcal (GAS) pharyngitis, Rapid Antigen detection Test (RADT) are increasingly used to avoid the constraints associated with throat swab cultures. Recent studies show that the RADT can be as sensitive and specific as the throat swab culture and can be used as alternative. This study aimed to determine the utility of RADT in the diagnosis of GAS pharyngitis in children at the Federal Teaching Hospital Gombe.

Methods: 324 children age 3-18years presenting with sorethroat at the out-patient department were consecutively recruited between April and September 2018. A proforma was used to document socio-demographic and clinical findings. Two throat swabs samples were taken for RADT using Encode strep A Rapid antigen test and culture on 5% sheep blood agar. The sensitivity, specificity and positive and negative predictive values of the RADT against the gold standard was determined.

Results: There were 190 (58.6%) females with a Male to Female ratio of 1:1.4. The mean age was 8.3 ± 3.9 years. The age 3-6 years has the highest number of participants 137 (42.3%), while 15-18 years age group was the lowest 25 (7.7%). Only 125 (38.6%) of the participants were from low social class, 129 (39.8%) were from households with 6-8 persons and 162 (62.3) are from households with overcrowding.

GAS was isolated in 73 (28.1%) of the children with pharyngitis. The RADT had sensitivity and specificity of 84.6% and 96.2% respectively and a PPV and NPV of 90.4% and 93.6% respectively.

Conclusions: The RADT used in this study is reasonably sensitive and specific and can be used in the diagnosis of GAS pharyngitis in clinics as a substitute for throat swab cultures.

ID:195

Topic: *AS02 Age-related healthcare / 2.2 Adolescent health*

MENSTRUAL HYGIENE MANAGEMENT AND SCHOOL ABSENTEEISM AMONG ADOLESCENTS IN SOKOTO STATE, NORTHWEST, NIGERIA

A. Ezenwoko¹, I. Raji¹, J. Ango¹, E. Inoh¹, A. Usman¹, E. Udofia²

¹*Usmanu Danfodiyo University Teaching Hospital, Sokoto, Community Health, Sokoto, Nigeria,* ²*University of Ghana Medical School, Community Health, Accra, Ghana*

Background: A quality high-school education can transform a girl's future, yet around the world, many adolescent girls miss school or even drop out altogether for one simple reason: menstruation. Unfortunately, schools often lack the supplies and sanitation facilities girls need for managing their periods. Girls without adequate health care may feel discomfort or pain. Shame, stigma and misinformation may discourage girls from attending school. We aimed to assess the menstrual hygiene practices and determinants of school absenteeism during menstruation among adolescents in

Sokoto State, North West, Nigeria.

Methods: we conducted a cross sectional study among 367 girls using multi stage sampling technique. Data were analysed using IBM SPSS version 23.

Results: The mean age of respondents was 15.37 ± 1.47 years, mean age at menarche was 12.98 ± 1.28 years. Majority of the respondents 282(76.3%) used sanitary pads, new piece of cloth 57(15.5%), tissue paper or cotton wool 12(3.3%) as menstrual absorbents. About one-third 33(38.8%) of those who did not use sanitary pads could not afford to buy it. More than half of the girls 214(58.3%) reported that there was no place in school for them to change their menstrual absorbents in school. Fifty- three (14.4%) of respondents missed school during menstruation. Commonest reason for missing school during menstruation was pain 20(5.4%). The only determinant of school absenteeism during menstruation was use of sanitary pad ($\chi^2=9.833$, $p=0.02$).

Conclusions: Majority of the girls had good menstrual hygiene practices. The use of sanitary pad was the only determinant of school absenteeism. The Sokoto State Government should provide sanitary menstrual products for girls in order to reduce school absenteeism during menstruation.

ID:199

Topic: *AS05 Epidemic and Pandemic health care / 5.4 Community engagement in epidemic/pandemic situations*
**PERSPECTIVES ON COVID-19 PANDEMIC BY COMMUNITY REPRESENTATIVES OF GURUM
COMMUNITY IN NORTH CENTRAL NIGERIA**

E. Esegbe¹, P. Esegbe², C. Akude³, W. Olaiya³, J. Musa⁴, M. Shehu⁵

¹*Benue State University/Benue State University Teaching Hospital, Paediatrics, Makurdi, Nigeria,* ²*Bingham University/Bingham University Teaching Hospital, Family Medicine, Jos, Nigeria,* ³*Bingham University Teaching Hospital, Family Medicine/Lily Pineo Centre for Infectious Diseases, Jos, Nigeria,* ⁴*Bingham University Teaching Hospital, Lily Pineo Centre for Infectious Diseases, Jos, Nigeria,* ⁵*Bingham University Teaching Hospital, Paediatrics, Jos, Nigeria*

Background: Community representatives superintend activities of any community. They represent standards for educational and socio-cultural practices in such communities. Their perspectives on the prevention of COVID -19 disease provides an insight into their community's response to the disease, identifies gaps in prevention, and priorities for strengthening responses against the pandemic in the community.

The aim of this study was to document the perspectives on COVID-19 among representatives of Gurum community in North Central Nigeria.

Methods: A cross sectional study was carried out in May 2020 in Gurum community. A structured questionnaire was used in obtaining information from the community representatives comprising of leaders of the community's socio-cultural groups. Information obtained: Socio demographic characteristics of the community representatives, Knowledge of the cause and preventive measures as well as practices employed against COVID-19 disease. Data was analysed using descriptive statistics.

Results: There were 38 (20 males, 18 females) community representatives. Majority had heard of COVID-19 (36, 94.7%). Physical contact was the most common (20, 52.6%) indicated mode of acquisition and 2(5.3%) thought the disease was a scam. Only 10 (26.3%) indicated that the disease was of viral origin. Social media was the commonest (28, 73.7%) source of COVID-19 information.

The respondents were most knowledgeable about the use of face mask and social distancing while being least knowledgeable about respiratory hygiene. The most appropriate practice against COVID-19 disease was social distancing and the least was use of face mask.

Majority acknowledged that COVID-19 pandemic negatively affected their commercial activity but positively influenced environmental and personal hygiene.

Conclusions: Majority of the representatives had an appreciable perspective about the disease. However, gaps in their knowledge, attitude, and practices against the disease indicate a need for COVID-19 health promotion among community representatives.

ID:154

*Topic: AS02 Age-related healthcare / 2.1 Maternal, newborn and child health***LYMPHANGIOMA OF THE TONGUE: A RARE PRESENTATION ON THE JOS PLATEAU, NORTH-WESTERN NIGERIA**C. Jasada¹, J. Ajah²¹*Kings College Hospital NHS Foundation Trust, Pediatrics, ORPINGTON, United Kingdom,* ²*UNIVERSITY OF LANCASHIRE, School Of Medicine, PRESTON, United Kingdom*

Introduction: The commonest sites for lymphangiomas affected in children are the head, neck (50-75%) and upper trunk. Our case report was a large lymphangioma of the tongue, which was the first documented presentation at the Jos University Teaching Hospital and, by extension Jos Plateau to the best of our knowledge.

Short Case: An 11-month-old male infant presented with a painless growing global large tongue from birth which rapidly increased in size four weeks prior to presentation. The growth was associated with fever and spontaneous bleeding from the tongue. At about the fourth month of life, the mass started to interfere with natural oral feeding and ease of chewing and swallowing. As he aged, he could no longer close his mouth resulting in ulcers and swellings on the tongue. Due to these symptoms, he presented to the Emergency Paediatrics Unit at our hospital where he was resuscitated, had a nasogastric tube passed for nutritional rehabilitation and was subsequently worked up for debulking surgery by the paediatric maxillofacial surgical team. A cranial CT scan showed a bicornuate-like anterior protrusion with no obvious mass seen within the tongue as well as a non-enhancing soft tissue mass overlying the right mandible. Blood investigations were in keeping with an inflammatory process. Electrolyte profile showed hyponatremia and hypoalbuminaemia. He subsequently had a successful reduction glossectomy one (1) month after presentation. Histology of the tissue revealed a non-keratinized stratified squamous epithelium overlying fibro-collagenous stroma with various sized thin-walled vascular channels, aggregates of lymphocytes and stratified muscle fibre in keeping with lymphangioma of the tongue. At his six-month post-operative follow-up, there was no growth on the tongue.

Conclusions: Lymphangiomas are common tumours found in the head and neck should be considered in infants presenting with macroglossia.

ID:150

*Topic: AS02 Age-related healthcare / 2.3 Elderly and end of life care***ASSESSMENT OF WEIGHT STATUS AND HEALTH-RELATED QUALITY OF LIFE AMONG ADULTS IN RURAL AND URBAN COMMUNITIES IN OYO STATE; A COMPARATIVE STUDY.**O. Oke¹, A. Adeomi², D. Parakoyi³, O. Oke⁴¹*Association for Reproductive and Family Health, Programs, Lagos, Nigeria,* ²*Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria., Community Medicine, ., Nigeria,* ³*Ladoke Akintola University of Technology, Ogbomosho, Oyo State, Nigeria,* ⁴*Community Medicine, ., Nigeria, Ekiti State University, Ado Ekiti, Ekiti State., Nursing Science, ., Nigeria*

Background: Weight status differs across communities and regions of the world. Body weight has important health implications across an individual lifespan with excess body weight not only found to be associated with significant mortality but also affect HRQOL compared with normal weight status. Many epidemiological studies usually focused on the association between increased BMI and its effect on the HRQOL. However little information is available on the relationship between various patterns of weight status and HRQOL.

Methods: A descriptive cross-sectional study that is comparative in design. Sample size calculated using the formula for comparing two groups and consisted of 480 adults aged 18 years above across urban and rural communities in Oyo State Nigeria. The weight status was assessed using BMI while the HRQOL was evaluated using the short-form 36 (SF-36) health survey.

Results: The prevalence of underweight was found to be 20.4% (26.3% vs 14.6%) while that of overweight/obesity was 18.3% (15.0% vs 21.7%) in rural versus urban respectively. In the urban communities, overweight/obese people 33.3% were more associated with poor HRQOL compared with those that had underweight status 29.6%. However, in the rural communities' underweight status were more associated with poor HRQOL compared with overweight /obese 0.0% in the physical functioning domain. $p=0.013$. In the urban communities being overweight/obese 34.6% was more associated with poor HRQOL in the physical health domain compared with being underweight 26.9%. In the urban communities being overweight/obese (34.6%) was more associated with poor HRQOL in the physical health domain compared with underweight status (17.7%). Underweight (25.3%) was more associated with poor HRQOL regarding to role limitation in the physical health domain compared with overweight/obesity (17.7%) $p=0.018$ in the rural communities.

Conclusions: While overweight and obesity are increasing problem for urban adults in Nigeria, underweight also exist among adults Nigerian and associated with poor HRQOL physical health domains.

ID:143

Topic: *AS02 Age-related healthcare / 2.3 Elderly and end of life care*

INFLUENCE OF SGLT2 INHIBITOR AND A2RB (AT1) ON FIBROGENESIS AND HEART FAILURE IN PATIENTS WITH ESSENTIAL HYPERTENSIVE DISEASE COMBINED WITH DIABETES MELLITUS TYPE 2

A. Ikwuka, N. Virstyuk

Ivano-Frankivsk National Medical University, Internal Medicine Named After Prof. M.m. Berezhnysky, Ivano-Frankivsk, Ukraine

Background: EHD combined with DM2 has a complicated course and is more difficult to treat. Aim of research was to study the effect of Dapagliflozin and Telmisartan on fibrogenesis and heart failure using CTGF and NT-proBNP as indicators respectively, in such patients.

Methods: 70 patients (43 females and 27 males), aged 45-69 years (average age 58.5 ± 0.5 years) with EHD, II stage, 1-2 degree with DM2 (HbA_{1c} - from 7.0 to 11.0%) were examined for 3 months. Group I (GI) included 25 patients who received basic treatment for EHD and DM2; Group II (GII) - 20 patients who received in addition to basic treatment as in GI, Dapagliflozin at a dose of 10 mg/day; Group III (GIII) – 25 patients who received in addition to as in GII, Telmisartan at a dose of 40 mg/day. The control group consisted of 20 practically healthy volunteers. Groups were randomized according to age, sex, BMI, durations of EHD and DM2. CTGF and NT-proBNP were determined by immunofluorescence methods.

Results: After the course of treatment, CTGF in GI and GII did not change significantly ($p < 0.05$). GIII showed a decrease in NT-proBNP by 25.83% compared with initial state ($p < 0.05$). NT-proBNP in GIII was lower than that in GI by 10.35% ($p < 0.05$) and in GII by 19.34% ($p < 0.05$). NT-proBNP in GI did not change significantly ($p < 0.05$); in GII it decreased by 16.41% ($p < 0.05$). Correlations between CTGF and NT-proBNP in GIII decreased, which may indicate a decrease in the progression of chronic heart failure due to inhibition of fibrogenesis. Echocardiography results revealed an increase in E/A ratio by up to 30.49% ($p < 0.05$) and an increase in myocardial contractile ability with an increase in ejection fraction by up to 8.32% ($p < 0.05$).

Conclusions: Dapagliflozin and Telmisartan in EHD plus DM2 patients contributed to suppression of fibrogenesis and heart failure by lowering the CTGF and NT-proBNP as confirmed by Doppler echocardiography.

ID:126

Topic: *AS02 Age-related healthcare / 2.3 Elderly and end of life care*

AGE-RELATED ENDOTHELIAL DYSFUNCTION AMONG HEALTHY ADULTS IN NORTHWESTERN NIGERIA.

M.A. Abdullahi¹, S.B. Garko¹, A.M. Tabari², M. Isa¹

¹*Ahmadu Bello University, Department of Medicine, Zaria, Nigeria,* ²*Kaduna State University, Department of Radiology, Kaduna, Nigeria*

Background: The endothelium is vasodilatory, antithrombotic, and anti-inflammatory under normal settings. However, pathologic conditions like hypertension and diabetes cause endothelial dysfunction that converts the endothelium to a prothrombotic, and pro-inflammatory organ with an increased risk of atherosclerotic cardiovascular disease (ASCVD). Aging causes endothelial dysfunction independent of major atherosclerotic risk factors. Brachial artery flow-mediated dilation (FMD) can non-invasively be used to measure endothelial dysfunction.

Methods: Adults (n=204) age 18 and above who consented were consecutively recruited in a rural community in Northern Nigeria. Hypertensives, diabetics, smokers, those with hyperlipidemia, HIV positive, or who had ASCVD were excluded. Brachial FMD was measured first by obtaining the baseline diameter of the brachial artery using ultrasound machine with L742 10-5MHz linear array transducer (Sonoscape® SSI-8000 model). The brachial artery was then occluded at supra-systolic pressure for five minutes and thereafter; brachial artery diameter was continuously measured for one minute. A stereotactic probe holder (Quipu® Italy) was used to maintain the probe at the same position. FMD assessment was done using an automated system (Quipu® Italy Cardiovascular Studio v.2.9) to limit bias. Normal endothelial function is set as brachial FMD of at least 10%.

Results: Of the 203 subjects recruited 67.5% were females and the mean age of participants was 50.37±8.78 years. Baseline brachial artery diameter of the subjects was 3.82±0.67cm. The mean brachial artery FMD of the subjects was 7.50±1.65%. Only 8.9% of the participants had brachial FMD above 10%. Age correlated strongly negatively with brachial FMD (r = -0.933). The age group 18-25 years had the highest mean brachial FMD of 12.56%, while the age group 66 years and above had the lowest mean brachial FMD of 5.05%.

Conclusions: This study has demonstrated that age is a significant risk factor for endothelial dysfunction despite the absence of major ASCVD risk factors like hypertension, diabetes and hyperlipidaemia.

ID:117

Topic: *AS02 Age-related healthcare / 2.3 Elderly and end of life care*

COVID-19 INFECTIONS IN ELDERLY IN AN INTERNAL MEDICINE DEPARTMENT IN DAKAR

B. Djilba, A. Faye, A.C. Ndao, N. Diagne, M. Sow, M. Dieng, B. Kane, A. Pouye

Hopital Aristide le dantec Dakar-Senegal BP, Dakar, Dakar- Ponty, Senegal

Background: The COVID 19 pandemic appeared in Senegal on March 02, 2020. In the elderly, the particularity is that they are fragile and susceptible to infections, in particular COVID-19. They are fragile especially because of their comorbidities.

Methods: This was a descriptive observational study during the first two waves of the COVID 19 pandemic over in the internal medicine department of Aristide Le Dantec hospital.

Results: We have thus identified the patients hospitalized during the first two waves of COVID-19 infection in the elderly. 283 patients over the age of 60 were hospitalized, or 49.6% of the total hospitalized patients, the average age being 71.67 years with extremes of 60-100 years. There was a male predominance with more than 2/3 of the total being male subjects. The majority were mild forms (30.7%) followed by severe forms (25.1%), then critical forms (24.7%). The comorbidities were mainly dominated by arterial hypertension and diabetes in 77.1% and 51.9% of patients, respectively, and more than 40% of patients had at least 2 comorbidities. The overall mortality was 27.9%. In addition, mortality was 66.7% in patients with 4 comorbidities (3 patients) and 30.5% in patients without comorbidity.

Conclusions: The elderly are subject to heavy consequences from the pandemic due to their fragility due to several factors that may be intertwined
Keywords: COVID 19, comorbidities, elderly

ID:159

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

NEWBORN CARE PRACTICES IN RURAL COMMUNITIES IN ETHIOPE WEST LOCAL GOVERNMENT AREA OF DELTA STATE, NIGERIA.

S. Etumudor¹, A. Okolo², O. Ighosewe¹

¹Delta State University Teaching Hospital, Department Of Paediatrics, Oghara, Delta State, Nigeria, ²Federal Medical Centre, Asaba, Department Of Paediatrics, Delta State, Nigeria

Background: Globally, neonatal mortality remains a major contributor to under five mortality. These deaths in sub-Saharan Africa might be related to newborn traditional care practices. The study described the newborn care practices and the key determinants in Ethiope West Local Government Areas of Delta State.

Methods: A community-based cross-sectional study comprising both qualitative data through Focused Group Discussion (139 grandmothers, 128 fathers) and Key Informant Interview (10 CHEWs, 26 TBAs); and quantitative data by interviewer-administered questionnaire (422 child-bearing age mothers) were analyzed.

Results: Bad practices identified include preference for antenatal care at TBA centres (82%); dual registration for ANC because of perceived benefits with TBAs (66.2%); late booking for ANC to conceal pregnancy from harm (94%); perceived better health care and smaller fees paid at delivery with TBAs (71.3%); smacking vigorously while the baby is held upside down during resuscitation (79%); cord cleansing with methylated spirit as well as application of other substances (91.5%); use of chlorhexidine gel (2.4%); bathing of babies soon after birth to prevent body odour (62.6%); initiation of breastfeeding within one hour (17.0%); use of prelacteal feeds (58.5%); colostrum is dirty milk and should be discarded (22%); and administration of herbal concoction to preterm (65.9%). However, good practices identified include feeding of colostrum (78%) and delayed bathing of the preterm (approximately 79%). Lower social class, low maternal education, high parity, ANC attendance outside the health facility and unskilled health care at delivery were critical determinants to poor maternal health seeking behaviour and unhygienic traditional newborn care practices.

Conclusions: Harmful traditional newborn care practices are common in the studied population. Culturally acceptable behavioral change methods and targeted health education of key stakeholders in the community are urgently needed to address these practices in order to mitigate their adverse influence on newborn care. Keywords: Newborn care, traditional practices, rural community.

ID:167

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

MOBILE PHONE CALL: INTERVENTION TO IMPROVE ORAL REHYDRATION SALT AND ZINC ADHERENCE FOR ACUTE DIARRHOEA IN CHILDREN SPECIALIST HOSPITAL, ILORIN.

T. Kayode-Alabi¹, S. Ernest^{2,3}, A. Saka³, R. Ibraheem², K. Alabi^{4,5}

¹Angelic Care Hospital, Paediatrics, Abuja, Nigeria, ²University of Ilorin Teaching Hospital, Department Of Paediatrics And Child Health, Ilorin, Nigeria, ³University of Ilorin Teaching Hospital, Paediatrics And Child Health, Ilorin, Nigeria, ⁴Garki hospital, Paediatrics, Abuja, Nigeria, ⁵Garki hospital, Department Of Paediatrics, Abuja, Nigeria

Background: Available data shows unsatisfactory adherence to both Oral Rehydration Salt (ORS) and zinc therapy in childhood diarrhoea. By reasonable assumption, phone call reminders can improve adherence to ORS and zinc therapy; however empirical evidence is scarce. Thus, the study was conducted to evaluate whether call reminders can enhance adherence to ORS and zinc or not.

Methods: This was a randomized control trial conducted at the Children Specialist Hospital, Ilorin. Four hundred children aged 6-59 months that presented with acute diarrhoea were randomly allocated into two arms: (i) The control group (CG) received only verbal standard instructions; and, (ii) The intervention group (IG) received phone call reminders plus verbal standard instructions. Only mothers/caregivers who owned or had access to a mobile phone were included. Each mother/caregiver was given a pictorial diary to tick whenever: 1) a child passes loose/watery

stool, 2) ORS was given after a diarrhoeal episode, and 3) a zinc tablet was administered. All study participants (IG and CG) received clinic reminders on day 10 of zinc therapy while only those in IG had call reminders on the third and seventh days of therapy.

Results: The overall study completion rate was 91.0%. The odds of giving ORS after each loose/watery stool was 1.6 fold higher among IG compared to the CG, [OR = 1.561, (95% CI = 0.939-2.598), p= 0.086]. Mothers/caregivers in the IG were 1.7 fold more likely to give all 10 zinc tablets than those in the CG, [OR = 1.671, (95% CI = 1.076 – 2.593), p= 0.022]. Furthermore, the odds of adhering to the combined use of ORS and zinc was 1.8 times higher among the IG, [OR = 1.818, (95% CI = 1.200 – 2.754), p= 0.005].

Conclusions: Phone call reminders improved adherence to the combined use of ORS and zinc among under-five children with acute diarrhoea.

ID:177

Topic: *AS02 Age-related healthcare / 2.2 Adolescent health*

BODY MASS INDEX, SLEEP AND PHYSICAL ACTIVITY OF YOUNG ADULTS IN A TERTIARY EDUCATIONAL INSTITUTION, NORTH WEST NIGERIA

K. Hamza¹, **A. Mansur**², **M. Darma**³, **S. Usman**³, **B. Nwankwo**⁴, **S. Shehu**³

¹*Ahmadu Bello University, Department Of Community Medicine, Samaru, Zaria, Nigeria,* ²*Ahmadu Bello University, College Of Medical Sciences, Samaru, Zaria, Nigeria,* ³*Ahmadu Bello University Teaching Hospital, Community Medicine, Samaru, Zaria, Nigeria,* ⁴*Kaduna State University, Community Medicine, Kaduna, Nigeria*

Background: Overweight and obesity increase the risk of cardiovascular disease, metabolic disorders as well as some cancers. Obesity is a leading preventable cause of death worldwide, globally; overweight and obesity were estimated to cause 3.4 million deaths. Physical inactivity may contribute to this rising trend. This study assessed Body Mass index (BMI) to determine prevalence of overweight and obesity and association with physical activity and sleep duration among undergraduate students of Ahmadu Bello University Zaria, Nigeria.

Methods: A cross-sectional study of 375 respondents who were selected through a multistage sampling technique was done. Data was collected using a structured, pretested questionnaire, weight and height were measured using standard techniques and BMI [(weight(kg)/height(m²)] was calculated. Data analysis was done using the IBM® SPSS® software (V.23). Associations were tested between variables with level of significance set at 5% (p ≤ 0.05).

Results: Mean age of respondents was 22.4± 2.9. They were predominantly males, 257(68.5%) . A total of 50 (13.3%) were overweight while 10 (2.7%) were found to be obese. There was minimal engagement in sporting activities, only 188(50.1%) perform vigorous sports, while 256 (68.3%) take walks . Sleep duration of 6 to 10 hours was reported by majority of the respondents , 337(89.9%). There was no statistically significant association between BMI and physical activity(p=0.43) , and none with sleep duration(p=0.90).

Conclusions: Majority of respondents had BMI within normal range, prevalence of overweight and obesity was low. Although there was minimal physical activity among respondents, no association was found between BMI and physical activity or sleep. Further studies are recommended.

ID:54

Topic: *AS02 Age-related healthcare / 2.3 Elderly and end of life care*

THE FRAILTY JOURNEY AS A MEANS TO FRAILTY EDUCATION

C. Lisk, **S. Mani**, **D. Bertfield**, **J. Brady**

Barnet hospital, Royal Free Hospital NHS foundation trust, Medicine, London, United Kingdom

Background: Sub-Sahara Africa has a population of 1.1 billion people with an increasing population of older adults which is projected to reach more than 67 million by 2030. Life expectancy is expected to increase to at age 60 of 16 years for women and 14 years for men. It is essential that frailty education and training is established to ensure Africa's healthcare professionals have the knowledge and skills to meet the needs of its older adults living with frailty.

Methods: In 2018, a faculty of Geriatricians, Palliative care physicians, General practitioners from a UK hospital

conceived, “The Frailty Journey - from early recognition to end of life”. This is a multidisciplinary educational programme which has evolved to a digital training programme in 2020 given the challenges of the COVID pandemic. Topics are linked by following the journey of a single fictitious patient, Mrs B, from her acute hospital presentation through recognition of frailty, frailty syndromes, rehabilitation from acute illness, managing polypharmacy and deprescribing through to advanced care planning and end of life care. The use of a large Jenga set illustrates frailty visually and makes the sessions interactive.

Results: Over 1000 people have accessed the training through the face-to-face sessions, an online Moodle and virtually via Zoom. Feedback has been overwhelmingly positive “the use of the Jenga made the session interactive and is a good analogy to describe frailty”, “what I like most was the multidisciplinary approach to the management of Mrs B and the emphasis on long term community management of these patients”, “Very engaging with use of case study; very memorable”.

Conclusions: Taking a patient on a clinical journey is a powerful tool for frailty multidisciplinary education. Delivering the programme virtually has been shown to be effective and can be translated to a worldwide audience of multidisciplinary healthcare professionals including Africa.

ID:45

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

DETERMINANTS OF MALE INVOLVEMENT IN FAMILY PLANNING SERVICES IN ABIA STATE, SOUTHEASTERN NIGERIA: A RURAL-URBAN COMPARATIVE STUDY

C. Amuzie¹, N. Nwamoh¹, A. Ukegbu¹, U. Agbo²

¹Federal Medical Centre, Umuahia, Abia State, Department Of Community Medicine, Umuahia, Nigeria, ²Abia State Ministry of health, Department Of Optometry, Umuahia, Nigeria

Background: Male involvement in family planning remains low in male-dominant communities. Evidence from studies has shown that rural areas are grossly affected by issues relating to family planning services. Family planning contributes greatly to regulating fertility and improving maternal health outcomes. We identified and compared the determinants of male involvement in family planning services among the rural and urban areas in Abia State, Nigeria.

Methods: The study was a cross-sectional study conducted between April-July 2019. A total of 588 married men who met the eligibility criteria were recruited from twelve communities using a multistage sampling technique. An interviewer-administered semi-structured questionnaire was used for data collection. Data analysis was done using Statistical Package for Social Sciences (SPSS) version 20. The level of significance was set at 5%.

Results: Male involvement in family planning services was significantly higher in urban areas (62.6% vs 47.3%), $p < 0.001$. Access to newspapers and television, educational status in urban was associated with male involvement in family planning service. In the rural setting: age, occupational status, educational status, number of living children was associated with male involvement in family planning service. Employment status of spouse was a determinant in both the rural and urban areas. The predictors included employment status of spouse (AOR= 3.57, 95% CI: 1.96-6.67) and access to television (AOR= 2.16, 95% CI: 1.20-3.98) in the urban areas while in the rural areas: younger age (AOR= 0.52, 95% CI: 0.31-0.88), four or more number of living children (AOR= 0.34, 95% CI: 0.17-0.68) and employment status of spouse were the predictors (AOR= 1.89, 95% CI: 1.06-3.33).

Conclusions: This study showed a significant urban-rural difference between the determinants and men's involvement in family planning practices. Family planning programs targeting men should be location-specific; to tackle the various factors that would hinder or enhance their involvement in family planning services.

ID:44

Topic: *AS02 Age-related healthcare/2.1 Maternal, newborn and child health*

STEADY-STATE ELECTROCARDIOGRAMS AND DISEASE SEVERITY OF CHILDHOOD SICKLE CELL ANAEMIA IN CALABAR, NIGERIA

A. Nlemadim¹, M. Meremikwu¹, M. Anah²

¹University of Calabar Teaching Hospital, Paediatrics, Calabar, Nigeria, ²University of Calabar Teaching Hospital, Paediatrics, Calabar, Nigeria

Background: There are varying clinical features of sickle cell anaemia (SCA) in children of which the fundamental mechanism is the sickling-unsickling of erythrocytes. This mechanism may be associated with abnormal electrocardiogram (ECG). Objective was to determine the relationship between clinical disease severity and ECG during steady-state of health of children with SCA.

Methods: This cross-sectional study consecutively recruited 56 subjects, 4 – 17 years of age, who met the inclusion criteria over 7 months. Information regarding painful crises, blood transfusion, hospital admission, previous stroke, acute chest syndrome, meningitis, avascular necrosis, gall stone, chronic leg ulcer, osteomyelitis and priapism were obtained from each subject. Thereafter, physical examination, 12-lead electrocardiography and full blood count were performed. These data were scored and classified as mild (< 8), moderate (8 – 17) and severe diseases (> 17).

Results: The median (interquartile) score was 4.0 (3.0 – 6.5) with range of 1 – 19. Majority of the subjects had mild disease (78.6%) while others had moderate (14.3%) and severe (7.1%) diseases. Sinus tachycardia (25%), prolonged P-wave duration (42.9%), prolonged QRS duration (23.2%), prolonged QTc interval (26.8%), T-wave changes (55.4%) and left ventricular hypertrophy (46.4%) did not significantly relate with disease severity classification. However, prolonged QTc interval correlated with disease severity [rs (54) = - 0.272, p=0.043].

Conclusions: Abnormal ECG occur in children with SCA irrespective of the level of severity of the disease. Interestingly, prolonged QTc interval is associated more with mild disease. Routine electrocardiography should be done to identify those at risk of cardiac adverse events.

ID:61

Topic: *AS02 Age-related healthcare / 2.3 Elderly and end of life care*

CORRELATES OF DEPRESSION AMONG ELDERLY PATIENTS ATTENDING THE GENERAL OUT-PATIENT DEPARTMENT OF A TERTIARY HOSPITAL IN NORTH WESTERN NIGERIA

F. Damagum

Aminu Kano Teaching Hospital, Family Medicine, Kano, Nigeria

Background: Depression is a major mental health problem in the elderly population. It is considered an important public health issue because of its association with an increased risk of morbidity and mortality as well as a decrease in physical, cognitive and social functioning. Although patients differ in their presentations, certain social and demographic characteristics are common to the elderly population with depression. The aim of this study was to determine the risk factors of depression among elderly patients seen in the General Out-Patient Clinic of Aminu Kano Teaching Hospital so as to assist healthcare workers in early identification of patients.

Methods: The study was cross-sectional in design involving 392 systematically selected patients at the GOPC. Through a questionnaire, data was collected on age, gender, marital status, ethnic group, religion, level of education, income, and living arrangement. The participants were screened for Depression using the Geriatric Depression Scale (GDS). Those with a score of more than five were determined to have depression. The functional status of the participants was also assessed using the Katz Index of Independence in Activities of Daily Living.

Results: In this study, the prevalence rate of Depression was found to be 22.4%. On bivariate analysis female gender, marital status (widows/widowers) marital setting (polygamy), low socio-economic class, osteoarthritis and body mass index (obesity) were found to be associated with a higher prevalence of depression. However, on logistic regression, only female gender (p=0.014, OR=1.401, CI= 1.757 - 2.591) widows/widowers (p= 0.030, OR=4.533, CI= 1.186 - 17.317) and obesity (p= 0.001, OR=5.644, CI= 2.759–11.544) were identified as risk factors for depression.

Conclusions: Geriatric Depression is prevalent in this environment and although its risk factors may vary, the results obtained in this study are substantially in keeping with findings made by other researchers in other parts of the world.

ID:33

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

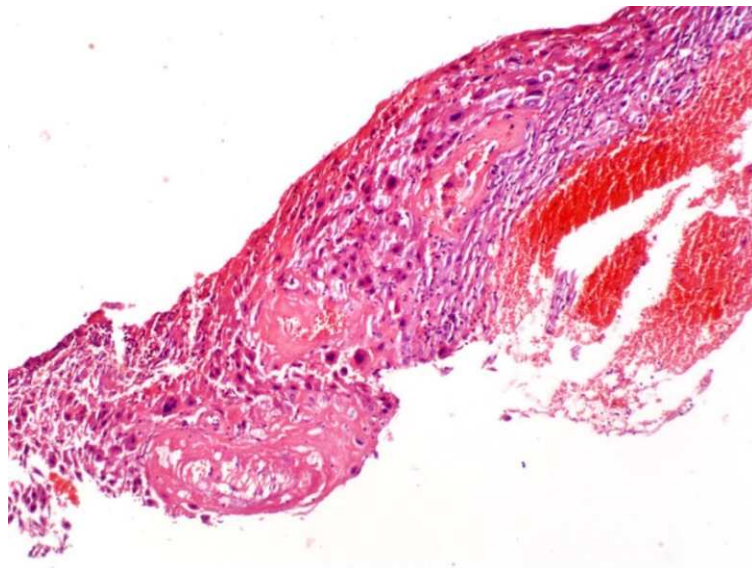
HISTOPATHOLOGICAL STUDY OF PLACENTAL CHANGES IN PREECLAMPSIA/ECLAMPSIA AND CORRELATION WITH NEONATAL MORBIDITY USING APGAR SCORES

O. Folaranmi, M. Buhari, K. Ibrahim

University of Ilorin Teaching Hospital, Department Of Anatomic Pathology, Kwara state, Nigeria

Background: Preeclampsia/eclampsia is a leading cause of maternal and perinatal mortality; the prevailing theory is that it is a consequence of disordered placentation with the resultant underperfusion of the placenta triggering release of cytokines and vascular factors which cause widespread endothelial damage. The placental changes are manifested as vascular and villous abnormalities with consequences in the developing foetus.

Methods: This was a descriptive cross sectional study of pathologic lesions in the placentas of 146 pregnant women; 73 women were normotensive (control group) while the other 73 women were those with preeclampsia/eclampsia (study group). The gross and histopathological examination of the placentas were done and compared between the two groups. The findings were then correlated to neonatal parameters and Apgar scores.



Results: In the preeclampsia/eclampsia group, 25 (34%) had mild-moderate preeclampsia, 32 (44%) had severe preeclampsia and 16 (22%) had eclampsia. The placental weights were lower in the study group compared to the controls (556.82 grams \pm 169.72 vs. 649.93 grams \pm 116.38, $p < 0.001$). The major pathologic lesions with strong association with preeclampsia/ eclampsia in this study were decidual vasculopathy, infarction, increased syncytial knots (Tenney-Parker changes), accelerated villi maturity, stromal fibrosis and microcalcifications ($p < 0.001$). Low Apgar scores at the 1st minute were seen in 36 (49.3%) neonates in the study group and 6 (8.2%) in the control group. At the 5th minute, only 8 (11%) neonates in study group had poor scores while none of the control had poor scores. There was also strong association between disease severity and Apgar scores in the 1st minute.

Conclusions: There were distinct pathological changes in the placentas of mothers with preeclampsia/eclampsia and demonstrable neonatal morbidity depicted by high incidence of preterm birth, low birth weights and low Apgar scores in the 1st minute.

ID:27

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

ROTAVIRUS GENOTYPES IN UNDER-FIVE CHILDREN WITH DIARRHOEA SEEN AT A TERTIARY HOSPITAL IN NORTH CENTRAL NIGERIA

A. Olukotun¹, A. Ojuawo², F. Mark³, D. Amadu⁴

¹Kogi State Specialist Hospital, Lokoja, Paediatrics Department, Lokoja, Nigeria, ²University of Ilorin Teaching Hospital, Paediatrics Department, Ilorin, Nigeria, ³Federal Medical Centre, Paediatrics Department, Lokoja, Nigeria, ⁴University of Ilorin Teaching Hospital, Medical Microbiology And Parasitology Department, Ilorin, Nigeria

Background: Rotavirus diarrhoea is a leading cause of mortality in children globally including Africa. Different genotypes of rotavirus have been implicated in the aetiology of diarrhea. These genotypes vary by geographical location and the severity of diarrhoea. Vaccination is the mainstay in the prevention of rotavirus diarrhea and the current rotavirus vaccine in Nigeria is derived from the G1P8 genotype.

Methods: Two hundred and fifty under-five children with acute, non-bloody diarrhea were recruited from the Emergency Paediatric Unit and the General Outpatient Clinic of the Federal Medical Centre (FMC) Lokoja. Their stool samples were analyzed using Enzyme Linked Immunosorbent Assay to determine the presence of rotavirus. The rotavirus genotypes were determined using Reverse Transcriptase Polymerase Chain Reaction. The severity of diarrhoeal disease in each child was determined using Vesikari score. Chi square test was used to determine the relationship between categorical variables and Fisher's exact test was used where appropriate.

Results: The prevalence of rotavirus diarrhea in under-five children with diarrhea seen at FMC Lokoja was 20.4%. The mean age of the rotavirus positive children was 12.7±11.0 months with a male to female ratio of 1.3:1. The most common genotypes of rotavirus identified were G1P8 and G1P6 in 49% and 14% of the children with rotavirus diarrhoea respectively. Other genotypes found were G1P8P6, G3P8P6 and G1G9P8 (in 8%, 6% and 6% of the children respectively). The G1P8 was the only genotype significantly associated with severe diarrhoeal disease ($p = 0.01$).

Conclusions: The G1P8 genotype of rotavirus was found to be the most important in terms of prevalence and severity of diarrhoea. The current rotavirus vaccine in the Nigerian Immunization schedule is also derived from the G1P8 genotype. It is thus expected that the current vaccine will be appropriate for the control of rotavirus diarrhoea in the study area.

ID:101

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

UTILITY OF RAPID DIAGNOSTIC TEST FOR MALARIA AMONG FEBRILE NEONATES IN A TERTIARY HEALTH FACILITY IN NORTH EAST NIGERIA

Y. Adeniji¹, I. Okonkwo², I. Jalo¹

¹Federal Teaching Hospital Gombe, Paediatrics, Gombe, Nigeria, ²University of Benin Teaching Hospital, Child Health, Benin City, Nigeria

Background: Malaria in the newborn may be indistinguishable from bacterial sepsis due to its non-specific symptoms and signs. A high index of suspicion and easy method of diagnosis will aid early diagnosis and institution of treatment thereby reducing morbidity and mortality. The World Health Organisation (WHO) recommends testing using microscopy or Rapid Diagnostic Test (RDT) before treatment for malaria. The use of RDT for the diagnosis of neonatal malaria has not been widely validated. Thus, we conducted this study to determine the prevalence of malaria among febrile neonates at Federal Teaching Hospital Gombe (FTHG), Nigeria and the utility of RDT in its diagnosis.

Methods: This was a cross sectional descriptive study that consecutively recruited 131 neonates (0-28 days old) with fever from March to June 2020 at the Special Care Baby Unit (SCBU) of the FTHG Nigeria. All study participants concurrently had malaria microscopy as Gold standard to measure parasite densities and RDT (HRP2,LDH). Data Generated was analysed using IBM SPSS version 24. Chi-square/Fishers exact test was used to test association between groups and statistical significance was defined as alpha less than 0.05

Results: The prevalence of neonatal malaria using microscopy was 78(59.54%). However, no participant tested positive by RDT giving a prevalence of 0%. Plasmodium falciparum was the only specie of malaria parasite found on microscopy. Sensitivity and Positive Predictive Value for RDT for neonatal malaria were zero. Congenital malaria was the commonest form of neonatal malaria and accounted for 59(75.64%). Majority of subjects with parasitaemia 73(93.50%) had low density parasite counts(+,++)

Conclusions: We found a high prevalence of neonatal malaria among febrile neonates and RDT for the diagnosis of neonatal malaria was not sensitive. Microscopy therefore remains the preferred method of diagnosis of neonatal malaria.

ID:98

Topic: *AS02 Age-related healthcare / 2.3 Elderly and end of life care*

TWO-MINUTE INTRA-VISIT VARIABILITY IN BLOOD PRESSURE AMONG ADULT HYPERTENSIVES IN A TERTIARY HEALTH CENTRE IN NORTHERN NIGERIA

M.A. Abdullahi¹, M. Yaqub², M. Isa¹, S.B. Garko¹

¹*Ahmadu Bello University, Department Of Medicine, Zaria, Nigeria,* ²*Ahmadu Bello University Teaching Hospital, Department Of Medicine, Zaria, Nigeria*

Background: Hypertension affects more than 1 billion people worldwide with two-third of those affected living in low- and middle-income countries. One of the major factors that impart routine hypertension care is how blood pressure is measured. Blood pressure can vary within minutes, thus the American Heart Association's recommendation of repeated measurements. This is usually difficult to achieve in most hypertension clinics in sub-Saharan Africa, with potential consequences in decision making for the patients.

Methods: Consenting adults (n= 213) hypertensives with uncontrolled blood pressure were recruited and had their blood pressures measured twice. The first after the usual interaction in the consulting room, then after two-minutes of the first reading, but with the patient reassured and asked to relax with no conversation with the doctor. Automated blood pressure monitor (OMRON, model: BP785N, U.S.A) was used. The study aims to look at the magnitude of variation in blood pressure within two-minutes and possible implication in the care of the patient.

Results: Out of the 213 recruited patients, 60% were females; mean age of 56.0 ± 11.66 , mean duration of hypertension diagnosis was 10.7 ± 6.26 years. The mean initial systolic blood pressure (SBP) was 157 ± 18 mmHg, while the mean initial diastolic blood pressure (DBP) was 94 ± 11 mmHg. Mean SBP after two-minutes dropped to 147 ± 20 mmHg and the mean DBP dropped to 89 ± 12 mmHg, with mean difference of 10.11 ± 9.5 mmHg ($p < 0.0001$). Initial mean DBP was 93.6 ± 11.0 mmHg and mean DBP after 2 minutes was 89.0 ± 11.6 mmHg, with mean difference of 4.6 ± 5.1 mmHg ($p < 0.0001$). SBP decreased in 89.2% and DBP decreased in 81.7%. SBP dropped to < 140 mmHg in 21.1% while DBP dropped to < 90 mmHg in 14.6% of the subjects.

Conclusions: This study has demonstrated that blood pressure can significantly vary within minutes and in some instances, the variation can be so significant as to affect decision on the level of control of the blood pressure.

ID:85

Topic: *AS02 Age-related healthcare / 2.3 Elderly and end of life care*

ASSOCIATION BETWEEN PERSONALITY TRAITS AND INFORMAL CAREGIVERS' PERCEIVED BURDEN OF CARE TO FUNCTIONALLY IMPAIRED ELDERLY ATTENDING THE GERIATRIC CENTRE, UNIVERSITY COLLEGE HOSPITAL, IBADAN

T. Ade-Onojobi^{1,2}, I. Jite³, O. Olowookere¹, S. Muyibi¹

¹University College Hospital, Department Of Family Medicine, Ibadan, Nigeria, ²Highland Specialist Hospital, Family Medicine/ Emergency Department, IBADAN, Nigeria, ³University College Hospital, Department Of Family Medicine, IBADAN, Nigeria

Background: Caring for the functionally impaired elderly is mostly done by informal caregivers due to chronicity of their disabling ailments and limited health facilities. There is evidence that besides care recipient related factors, inherent caregiver factors like personality traits and psychological morbidity may affect burden. However, the personality traits of caregivers and the association with burden is not known in Nigeria.

Methods: A cross-sectional study conducted among 226 informal caregivers at the Geriatric clinic, UCH, Ibadan, between May and July 2019. Data were collected with a semi-structured questionnaire, Zarit-Burden Interview, Big Five Inventory-44 and General Health Questionnaire-12. The outcome variable was perceived caregiver burden. Data were analyzed using SPSS 20.

Results: The mean age of respondents was 45.44 years, 56.6% were females, and 52.2% were offspring of the care recipients. The prevalence of burden was 97.4%. With the pattern of the personality traits, 57.7% had openness, 53.1% had conscientiousness, 46.5% had extraversion, 58.8% had agreeableness and 50% had neuroticism. Majority (80.5%) of the caregivers had probable psychological distress. Openness ($p=0.017$), agreeableness ($p=0.016$) and level of satisfaction with support ($p=0.038$) were negatively associated with caregiver burden, whereas psychological morbidity ($p=0.001$), blood pressure ($p=0.049$), level of dependence on the caregivers ($p=0.001$) and providing physical care ($p=0.005$) had a positive association. The predictors of caregiver burden were openness [$p=0.022$, OR= 0.71], psychological morbidity [$p=0.001$, OR= 12.375], level of satisfaction with support [$p=0.014$, OR= 0.300] and level of dependence on the caregivers [$p=0.005$, OR= 4.223].

Conclusions: Conclusion: There is a high prevalence of caregiver burden. Personality traits, probable psychological morbidity, level of satisfaction with support and dependence on caregiver were predictors of perceived caregiver burden. The informal caregivers should be assessed based on these in order to reduce caregiver burden.

ID:80

Topic: *AS02 Age-related healthcare / 2.2 Adolescent health*

COHORT ANALYSIS OF ADOLESCENT TUBERCULOSIS LOSS TO FOLLOW-UP AND ASSOCIATED FACTORS IN THE GREATER BANJUL AREA OF THE GAMBIA, WEST AFRICA; A CROSS-SECTIONAL SURVEY

O. Owolabi¹, A. Secka¹, M. Sonko¹, I. Loum¹, I. Sanneh¹, A. Touray¹, S. Badjie¹, S. Barry¹, A. Wurrie², O. Cham¹, A. Sillah¹, J. Sutherland¹

¹Medical Research Council Gambia @ London School of Hygiene and Tropical Medicine, Vaccine And Immunity Theme, Banjul, Gambia, ²National Tuberculosis and Leprosy control program, Tuberculosis Control, Banjul, Gambia

Background: There is an increased risk of Tuberculosis (TB) during adolescence (10- 19 years). TB in adolescents and young adults (20- 24 years) compared to older adults (≥ 25 years) has been neglected until recently. The global annual burden of TB in young people (10- 24 years) was estimated at 1.8 million. We describe the clinical characteristics and outcomes among adolescents with TB and compare loss to follow-up (LTFU) rates with that among young adult and older adult TB cases.

Methods: A retrospective review of TB registers of five DOTS centers, TB hotspots, in the Greater Banjul Area (GBA) of The Gambia from 1st January to 31st December 2020. The clinical characteristics and treatment outcomes from the

registers were compared among adolescents, youths and a systematic sample of every third adult (≥ 25 years). Logistic regression analyses were used to investigate risk factors for LTFU.

Results: We analysed 149 adolescents, 231 young adults, and 360 older adult newly diagnosed TB patients. Older adults (14.7%) and adolescents (11.4%) had a higher documented HIV seropositivity than youths (4.8%), $p=0.001$. Adolescents had the highest rate of LTFU (9.4%) than young adults (3.5%) and adults (3.9%), $p=0.016$. HIV negative TB patients had four times increased risk of LTFU than HIV positive (OR 4.5, 95% CI 0.6- 33.2, $p=0.14$). In a multivariable model, adolescent (OR 2.7, 95% CI 1.2- 5.9, $p=0.014$) and extra-pulmonary TB (OR 4.4, 95% CI 1.3- 14.9, $p=0.020$) were each associated with LTFU. HIV uninfected and smear negative TB had a higher risk of LTFU but were not significantly associated respectively (OR 4.4, 95% CI 0.6- 32.9, $p=0.15$; OR 1.2, 95% CI 0.6- 2.6, $p=0.61$).

Conclusions: Adolescents treated for TB had greater LTFU than young and older adults. Adolescent friendly TB clinic that promotes retention on treatment for a successful treatment outcome advocated.

ID:77

Topic: *AS02 Age-related healthcare / 2.2 Adolescent health*

GASTROINTESTINAL TRACT MALIGNANCIES IN ADOLESCENTS AND YOUNG ADULTS: THE IBADAN EXPERIENCE

I. Nwanji, O. Adegoke, O. Ogunbiyi

University College Hospital, Ibadan, Department Of Pathology, Ibadan, Nigeria

Background: Gastrointestinal tract (GIT) tumours are predominantly seen among middle aged and elderly persons. However, there are reports of an increasing incidence among adolescents and young adults. We sought to describe the characteristics of malignancies involving the GIT among patients aged 10-35 years.

Methods: A retrospective review of all histologically diagnosed cases of malignancies, diagnosed at our centre between January 2010 and December 2019 and involving the stomach, small intestine, colon and anal canal was undertaken. Patients between the ages of 10 and 35 years were identified (using the UNICEF definition for adolescents [10-19 year] and the African Youth Charter definition for young persons [15-35 years]). Demographic data and tumour characteristics were examined.

Results: There were a total of 79 cases of GIT tumours seen in adolescents and young adults. This amounted to 14.2% of total GIT malignancies involving these sites. The male female ratio was 1: 1.1. Majority (66%) of patients were between 25 and 35 years of age. Adolescents were involved in 14% of cases. Colonic malignancies predominated, accounting for 75% of cases. Tumours of the anal canal, stomach and small intestine accounted for 9%, 9% and 7% of cases respectively. Adenocarcinomas were the most common tumours of the GIT seen, accounting for 87% of cases, followed by Non Hodgkin Lymphomas which accounted for 6% of cases. Two cases of gastrointestinal stromal tumours of gastric origin were seen accounting for 2.5% of cases.

Conclusions: Gastrointestinal tract tumours affecting adolescents and young adults are not uncommon. Majority of these tumours are adenocarcinomas and affect the colon. Genetic analysis to determine the frequency of Lynch syndrome and other inherited cancer genes may shed more light on predisposing factors among this subset of patients.

ID:184

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

THE INCIDENCE OF ZINC DEFICIENCY AMONG NEWBORNS DELIVERED AT FEDERAL MEDICAL CENTRE UMUAHIA, ABIA STATE.

O. Okolo¹, N. Ibeziako², M. Ughasoro², B. Ibe²

¹*Federal Medical Centre Umuahia, Department Of Paediatrics, Umuahia, Nigeria,* ²*University of Nigeria Teaching Hospital, Department Of Paediatrics, Enugu, Nigeria*

Background: The risk of zinc deficiency is higher among low income countries. Zinc deficiency in newborns, if unidentified and treated, has been documented to persist into childhood with its attendant complications.

Methods: This study was a descriptive cross-sectional study. Newborns delivered in the hospital at gestational age range from 28 – 42 weeks, were recruited into the study. Umbilical cord blood was collected at birth. Atomic

Absorption Spectrophotometer was used to assay serum zinc level. Serum zinc level < 65µg/dl was considered as zinc deficiency.

Results: The 120 newborns studied comprised of 40 preterm low birth weight, 20 term low birth weight and 60 normal weight babies. The prevalence of zinc deficiency was 42.5% among the preterm low birth weight, 70% among the term low birth weight and 35% among the normal weight newborns.

Conclusions: This study showed that the prevalence of zinc deficiency among newborns, especially term low birth weight babies, is high. Routine serum zinc assay of the term low birth weight newborns is recommended.

VACCINES

TRACK 3

ID:155

Topic: *AS03 Vaccines / 3.4 Vaccines for emerging infections*

PATTERN OF ADVERSE EVENTS FOLLOWING IMMUNIZATION AMONG RECIPIENTS OF FIRST DOSE OF CHADOX1-S [RECOMBINANT] COVID-19 VACCINE IN MASERU LESOTHO

A.B. Nwako¹, O.F. Nwako², C.E. Nwolisa³, M.L. Nwako⁴, C.N. Nwako⁵

¹Queen Elizabeth II Hospital, Department Of Paediatrics, Maseru, Lesotho, ²Federal Medical Centre Owerri, Department Of Internal Medicine (cardiology), Owerri, Nigeria, ³Federal Medical Centre Owerri, Department Of Paediatrics, Owerri, Nigeria, ⁴Independent Researcher, Nursing Services, Maseru, Lesotho, ⁵Federal Medical Centre Owerri, Department Of Pharmacy, Owerri, Nigeria

Background: ChAdOx1-S [recombinant] vaccine is said to be associated with some side effect. The study was to show the pattern of side effects observed with ChAdOx1-S [recombinant] vaccine after the first vaccination of high risk group. The study tried to describe the pattern and distribution of the adverse events following immunization.

Methods: The study design was cross-sectional descriptive observational study. The study was done using the secondary data of all the at risk group especially the health workers who received the covid-19 vaccine who were recorded in the covid-19 vaccination register. Information on the side effect were obtained from the District Health Information system II recorded from recipients who self-reported of any side effect.

Results: There were 6589 individuals vaccinated with the first dose of ChAdOx1-S [recombinant] vaccine in Maseru Lesotho between 1st and 31st of March 2021 of which 69.66% were female, 69.49% were fifty-five years or less, 86.04% were health workers and 27.26% had comorbidity. Of all those vaccinated, 0.5% had side effects out of which 0.41% was systemic, 0.06% local and 0.03% allergic reactions. Headache and dizziness were commonest among the systemic side effects while pain at injection site was the commonest for local side effects. There were only two cases of allergic reactions reported which were multiple swelling in the buttock and swelling of the face and lip. Eighty-eight percent of those who reported side effects did so on the day of vaccination.

Conclusions: The side effects observed with the first dose of ChAdOx1-S [recombinant] vaccine were less than in other studies. The commonest side effects included headache, dizziness, tiredness and pain at the injection site. Most of the side effects were reported in the first day of vaccination. Keywords: Covid-19, vaccine, ChAdOx1-S [recombinant], adverse events following immunization, Maseru, Lesotho

ID:194

Topic: *AS03 Vaccines / 3.5 Vaccine delivery*

COVID 19 VACCINE ROLL OUT IN ENUGU STATE NIGERIA - PROCESSES AND CHALLENGES

A. Iwuagwu^{1,2}, B. Uzochukwu²

¹*University Of Nigeria Teaching Hospital, Ituku-ozalla, Enugu, Community Health, Enugu, Nigeria,* ²*University of Nigeria Teaching Hospital, Ituku/Ozalla, Enugu, Community Health, Enugu, Nigeria*

Background: Globally, COVID-19 vaccines have been developed in addition to some non-pharmaceutical interventions to prevent the occurrence of COVID-19 disease amongst susceptible individuals as there is currently no cure for it. Nigeria rolled out the AstraZeneca/Oxford Covid-19 Vaccine on the 5th of March 2021 and on 19th March 2021, Enugu State commenced vaccination of the phase one target population. Two doses of the vaccine were given to recipients with 12 weeks interval between the first and second dose. This study explores the vaccine roll out processes and the challenges encountered during the phase one campaign in Enugu State.

Methods: In-depth interviews were conducted with 8 Primary Health Care workers, 4 Policy makers, 3 programme managers and 1 development partner.

Results: The processes involved the phasing of vaccinations into 4 phases based on priority due to the limited availability of the vaccine; vaccine transportation to the country, zones, states, LGA, wards using appropriate cold chain system; micro planning for vaccine distribution including number of people to be immunized per day and training of health workers on vaccination. The first phase dosing exercise was adjudged to be successful as the State achieved 74 % coverage.

However, several challenges were encountered including inadequate human resources, social mobilization issues, monitoring and supervision issues, inadequate funds and vaccine hesitancy.

Conclusions: Great efforts have been put in this exercise. However, there are challenges which should be resolved to ensure quality vaccination in the remaining phases.

Recommendations: Early planning, provision of transport allowance, training and retraining, adequate funding for advocacy, social mobilization and behavioural change communication, upgrading of District Health Information System platform to avoid delay in data entry, providing a robust system for monitoring/ supervision and youth engagement to help dispel conspiracy theories on the internet since they are the greater population using.

ID:114

Topic: *AS03 Vaccines / 3.1 Vaccine acceptance and hesitancy*

ASTRAZENECA COVID-19 VACCINATION EXPERIENCE AMONG HOSPITAL WORKERS IN IBADAN, SOUTHWEST NIGERIA

B. Ibisola

University College Hospital, Department Of Family Medicine, Ibadan, Nigeria

Background: Vaccination against SARS-COV-2 virus is the leading drive in the global efforts to combating the COVID-19 pandemic all over the world. Different reactions on the side effects keep emanating from those who have taken the vaccine. Hesitancy against COVID-19 vaccines is still very rife and remains one major clog against the vaccination campaign. This study explores the experiences of the hospital workers from the vaccination exercise in Nigeria and the factors responsible for hesitancy among this group of professionals.

Methods: We carried out a survey with the help of both soft-copy and hard-copy questionnaires to obtain information on vaccination experience, which include the process of vaccination, pre-emptive beliefs on vaccination effects and the actual post vaccination side effects. We carried out this study at two centres, the University College Hospital and Our Lady of Apostle Catholic Hospital. Ethical approval was sort and obtained from the two institutions with approval numbers UI/EC/21/0174 and OCH/EC/21/07 respectively.

Results: A total of 721 hospital workers participated in the study. The median age was 37 years and (50.2%) were females. Doctors and Nurses made up 36.3% while other hospital workers were 63.7%. The leading challenges with vaccination process were registration (39.2%) and long waiting time (35.1%). The most experienced side effect was injection site pain (48.9%), most side effects were noticed within 24 hours post vaccination (56.6%) and the side effects

lasted 4–5 days in 41.5% of the respondents. A significant number of respondents (85.9%) indicated willingness to take the second dose of the vaccine and 90.4% will recommend the vaccine to non-healthcare workers.

Conclusions: The study showed that the AstraZeneca vaccine was not associated with life threatening side effects with the leading side effects being injection site pain. Despite the side effects, majority of the participants are willing to take their second dose of the vaccine and to recommend it for others.

ID:36

Topic: *AS03 Vaccines / 3.1 Vaccine acceptance and hesitancy*

COVID-19 VACCINE HESITANCY AMONG HEALTHCARE WORKERS AND ITS INDIVIDUAL DETERMINANTS IN ABIA STATE, SOUTH-EAST NIGERIA: A CROSS-SECTIONAL STUDY.

F. Odini, C. Amuzie, K. Kalu, N. Nwamoh, U. Emma-Ukaegbu, M. Izuka, G. Onyeike
Federal Medical Centre, Umuahia, Abia State, Department of Community Medicine, Umuahia, Nigeria

Background: Healthcare workers are at higher risk of COVID 19 with ease of infection transmissibility to coworkers and patients alike. Vaccine Hesitancy rates of 56% and up to 25% were reported among healthcare workers in US and China respectively. Vaccination is known as the most potent weapon to combat infectious diseases. Acceptance of the COVID-19 vaccine plays a major role in combating the pandemic. This study assessed the Individual level factors associated with COVID-19 Vaccine hesitancy among healthcare workers in Abia State.

Methods: A cross-sectional study among 422 healthcare workers was conducted in Abia State with an online questionnaire. The questionnaire extracted information on Individual factors and willingness to take the vaccine. Descriptive statistics were used to calculate frequencies and proportions. Bivariate analysis was used to test the association between the individual factors and the outcome variable (vaccine hesitancy). Logistic regression was conducted to identify the predictors of COVID-19 vaccine hesitancy. The level of significance was 5%.

Results: Mean age of the respondents was 40.6 ± 9.5 years and 67.1% were females. The COVID-19 Vaccine hesitancy rate was 50.5% (95%CI 45.6 – 55.3). Vaccine Hesitancy was predicted significantly by vaccine immune system benefits, vaccine importance/necessity, recommendation of vaccine to friends and colleagues, other benefits of the Vaccine and vaccine safety. These were all statistically significant individual level predictors of hesitancy amongst HCWs in Abia State.

Conclusions: Covid-19 vaccine hesitancy was high among healthcare workers. Significant individual level predictors influence the uptake of the COVID-19 Vaccine. We recommend that the Federal and State Ministries of Health conduct more focused scientifically backed awareness campaigns elaborating the immunological and other benefits of the Vaccine, vaccine safety profile and general information on the available vaccines .

ID:103

Topic: *AS03 Vaccines / 3.2 Pre-clinical and laboratory/immunology studies*

IN-SILICO ANALYSIS OF GENE EXPRESSION PROFILE OF SARS-COV-2 INFECTED CELL LINE TREATED WITH REPURPOSED DRUGS

E.P. Chukwuka¹, A. Ghansah², H. Kaur³, M. Mazumder⁴

¹Ministry of Health, Laboratory Department/transfusion Medicine Unit, Al Mubarak, Saudi Arabia, ²University of Ghana, Noguchi Memorial Institute For Medical Research, Accra, Ghana, ³Pine Biotech, Applied Analytics, Chandigarh, India, ⁴Pine Biotech, Applied Analytics, Kolkata, India

Background: COVID-19 disease caused by the novel SARS-CoV-2 virus has infected over two hundred million persons and recorded over four million deaths. Currently, the only drug approved for the treatment of this disease, remdesivir has mixed results. A few drugs were computationally repurposed for the treatment of this infection, however, the mechanism of action of some of these drugs is still poorly understood. Ruxolitinib is an anti-inflammatory drug that was proposed for the treatment of severe cases and has some defined mechanism of action, however, amlodipine a

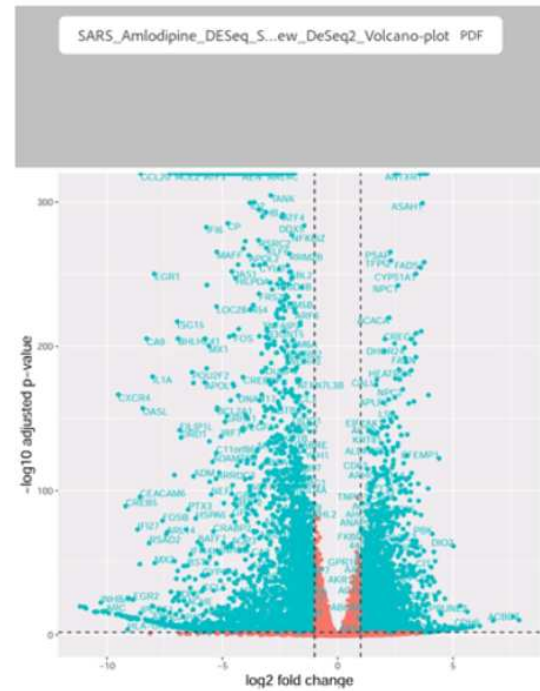
calcium channel blocker one of the few repurposed drugs for COVID-19 and shown to reduce viral load has some yet to be clearly defined mechanisms. In this study, using publicly available data on gene expression profiles from cell lines treated with the virus, ruxolitinib, and amlodipine, we intended to uncover the possible mechanisms of action of amlodipine (See Appendix 3).

Methods: Following data-mining from Gene Expression Omnibus (GEO), database, two projects of interest were selected (GEO accession numbers; GSE154613 and GSE147507). Data extraction and exploration were performed and subsequently, differential gene expression and pathway enrichment analysis to elucidate genes and pathways involved in the mechanism of action of amlodipine.

Results:

Volcano plot showing significantly up-regulated genes in both SARS-CoV-2 and (SARS + Amlodipine) treated cell lines. Top enriched pathways with significant number of up-regulated and downregulated genes due to Amlodipine

SARS vs SARS + Amlodipine (down-regulated genes)		
	p-value	q-value
Natural killer cell mediated cytotoxicity	0.0003	0.02
Osteoclast differentiation	0.0003	0.02
Antigen processing and presentation	0.0003	0.02
Jak-STAT signaling pathway	0.0004	0.02
Hematopoietic cell lineage	0.0006	0.02
MAPK signaling pathway	0.001	0.03
Intestinal immune network for IgA production	0.002	0.04
SARS vs SARS + Amlodipine (up-regulated genes)		
Lysosome	2.30E-08	3.70E-06
DNA replication	4.20E-06	0.0003
N-Glycan biosynthesis	1.18E-05	0.0006
Peroxisome	3.91E-05	0.0015
Oxidative phosphorylation	4.94E-05	0.002
Valine, leucine and isoleucine degradation	0.0001	0.003
Base excision repair	0.0001	0.004
Cell cycle	0.0003	0.006
Steroid biosynthesis	0.0005	0.008
Fatty acid metabolism	0.0006	0.008



Ruxolitinib is an established non-selective inhibitor of the JAK-STAT signaling pathway (p-value 0.0004; q-value 0.02), in this study, amlodipine also has significant JAK-STAT signaling pathway inhibition (p-value 0.0004; q-value 0.02) and modulates other immune-related signaling pathways. Also observed were other up-regulated pathways that may be involved in molecular innate defense against pathogenic agents.

Conclusions: SARS-CoV-2 infection hijacks JAK-STAT and other signaling pathways by upregulating some genes. Amlodipine significantly downregulates some of these genes involved in the JAK-STAT signaling pathway. Amlodipine may be involved in the modulation of immune response to viral infection due to SARS-CoV-2. These effects on viral-host interaction may benefit amlodipine as a potential antiviral and anti-inflammatory drug.

ID:32

Topic: *AS04 Mental health / 4.2 Child and adolescent mental health*

COMPARATIVE ASSESSMENT OF THE PREVALENCE, PATTERNS AND PREDICTORS OF MARIJUANA USE AMONG SENIOR SECONDARY SCHOOL STUDENTS IN RURAL AND URBAN SETTLEMENTS IN IMO STATE, NIGERIA

I. Ohale

Imo State University Teaching Hospital Orlu, Community Health, Orlu, Nigeria

Background: The growing use of marijuana by adolescents in both rural and urban areas, has become an issue of great concern. The need to know and compare the occurrence of this social menace in an urban-rural axis, underscores the rationale for the present study. The aim of this study is to determine and compare the rural-urban differences in the prevalence, patterns and predictors of marijuana use among students in Imo state, Nigeria.

Methods: A comparative cross – sectional survey involving 346 students (48.5% urban, 51.5% rural) aged 14– 19 years, was conducted between February and March 2018. A multi – stage sampling technique used. Information from respondents was collected using a triangulation of methods. The questionnaire used was pre – tested, semi – structured and self – administered. Data was done using descriptive and inferential statistics where appropriate. Bivariate analysis was performed using Chi – square, while a multivariate analysis was done using Binary logistic regression to determine predictors, with estimate expressed as odds ratio at 95% confidence interval. A p-value of <0.05 was considered significant.

Results: The study found an overall lifetime marijuana use prevalence of 4.3% among the respondents, with prevalence being higher in the rural areas (5.6%) than in the urban areas (3.0%). The most predominant pattern of use in both the rural and urban settlements was experimental (80%). The only significant predictor of marijuana use in urban areas was the level of perception of harm, while in rural areas, the predictors were marital status of parents, having friends/relatives who use marijuana and the level of perception of harm.

Conclusions: The study concluded that the problem of marijuana use by in – school adolescents, is currently more critical in rural than urban areas in Imo State, Nigeria. Therefore, more intervention and preventive efforts should be channelled to the rural areas.

ID:29

Topic: *AS04 Mental health / 4.2 Child and adolescent mental health*

UDT VS SELF REPORT IN DIAGNOSING ADOLESCENT SUBSTANCE ABUSE AMONG SECONDARY SCHOOL STUDENTS IN UMUAHIA, SOUTH EASTERN NIGERIA.

N. Gabriel

FMC Umuahia, Paediatrics, Umuahia, Nigeria

Background: Most studies in developing countries are based on self-reports which may poorly estimate the rates of substance abuse in these areas. This varying prevalence and pattern requires that more objective tools be used for drug use studies. Self-reporting and urine drug testing commonly used for these surveys may document rates at variance and affect the integrity of preventive measures proffered.

Methods: A cross-sectional study recruited four hundred adolescent students attending secondary schools in Umuahia. A Modified WHO student drug use questionnaire and UDT were used to identify those abusing drugs. Chi-square was used to test significant association for categorical variables; Level of significance was set at p-value <0.05.

Results: A total of 365 (91.3%) were lifetime substance abusers while 227 (56.8%) were current substance abusers using self-report. Urine drug test was positive in 154 (38.5%) students. The commonest licit substance by self-report was coffee in 128 (32.0%) current abusers followed by kola nut in 75 (18.8%). Illicit substances were cannabis in 18.8%,

Lacatomtom in 11.5% and cocaine in 0.8%. Oxycodone was detected by UDT at 24.8%, and cocaine at 1.5%. 48 (31.2%) students were multiple abusers. There was a weak relationship between these two tools in diagnosing cannabis, opioids, and cocaine abuse (Spearman's rho $x^2 = 0.03, 0.03, 0.01, p = 0.541, 0.456, 0.862$). The location of the schools, co-education, maternal level of education, marital status and demise of both parents were significantly associated with adolescent substance abuse ($p \leq 0.05$).

Conclusions: Current self-reported prevalence of substance abuse by students in Umuahia was higher than the rate by urine drug test. Coffee, kolanut, cannabis, Lacatomtom and Tramadol were the commonly self-reported substances while Oxycodone, cannabis, opioids, methamphetamine, and cocaine were obtained by UDT. There was no agreement between current self-report and UDT for use of cocaine, cannabis and opioid. School characteristics, maternal education, marital status, and demise of parents were associated with adolescent drug abuse.

ID:70

Topic: *AS04 Mental health / 4.2 Child and adolescent mental health*

PREVALENCE OF DEPRESSION IN ADOLESCENTS IN PORT HARCOURT METROPOLIS, RIVERS STATE.

E. Alinnor, E. Alikor, B. Okoh

University of Port Harcourt Teaching Hospital, Department Of Paediatrics, Choba, Nigeria

Background: Depression is a mood disorder characterized by a loss of interest in activities and causes significant impairment in daily life. It is projected to become the leading cause of disability and the second leading contributor to the global burden of disease. The aim of this study was to determine the prevalence of depression and its associated risk factors among adolescents in Port Harcourt metropolis, Rivers State.

Methods: This was a cross-sectional study involving adolescents aged 10-19 years in secondary schools in Port Harcourt, recruited using a stratified multistage sampling technique. We obtained the subjects' biodata and sociodemographic information using self-administered semi-structured questionnaires. We assessed for the presence of depressive symptoms using a screening tool- the Beck Depression Inventory (BDI), and depression was defined by a score > 18 . The prevalence of depression was obtained and its associated risk factors were calculated using bivariate and multivariate analysis.

Results: Of the 1,428 adolescents who were enrolled, 563 (39.4%) were males. The mean age was 14.30 ± 2.04 years. The prevalence of depression in this study was 21.9% (95%CI=19.9-23.9). The prevalence was significantly higher among the late adolescent group (24.9%; 95%CI=22.7-27.1; $p=0.006$), females (24.5%; 95%CI=22.3-26.7; $p=0.003$), subjects from a low socioeconomic class (31.4%; 95%CI=29.0-33.8; $p=0.005$) and subjects with a single/divorced parent (34.9%; 95%CI 32.5-37.3; $p=0.003$). The female gender (OR=1.447, 95%CI=1.107-1.891; $p=0.007$), low socio-economic status (OR=1.409, 95%CI=1.064-1.865; $p=0.017$) and non-monogamous family structure (OR=1.586, 95%CI=1.152-2.183; $p=0.005$) were associated with significantly increased odds of depression among the study subjects.

Conclusions: There is a high prevalence of depression among school-going adolescents in Port Harcourt metropolis. The female gender, low socio-economic class and non-monogamous family structure are significant predictors of having depression. Therefore, it is important to screen these children for early detection. **KEY WORDS:** Adolescence; depression; Beck Depression Inventory(BDI)

ID:120

Topic: AS06 Other - Antimicrobial resistance

MALARIA PREVENTION AMONG PREGNANT WOMEN ATTENDING SELECTED PRIMARY HEALTHCARE CLINICS IN GOMBE METROPOLIS, GOMBE, NORTHEAST, NIGERIA.R. Ibrahim¹, A. Girei², M. Aaron³, M. Gadanya⁴, R. Sufi⁵, U. Danladi⁶, M. Danimoh¹

¹Gombe State University, Gombe, Nigeria, Community Medicine Department, Gombe, Nigeria, ²Gombe State University, Gombe, Nigeria, Haematology And Blood Transfusion, Gombe, Nigeria, ³Gombe State University, Gombe, Nigeria, Community Medicine Department, Gombe, Nigeria, ⁴Bayero University Kano, Community Medicine, Kano, Nigeria, ⁵Animu Kano Teaching Hospital, Kano, Nigeria., Community Medicine Department, Kano, Nigeria, ⁶Gombe State University, Gombe, Nigeria, Biological Sciences Department, Gombe, Nigeria

Background: Pregnant women and children are particularly vulnerable to the adverse consequences of malaria caused by the most lethal parasite, *Plasmodium falciparum* because they do not always receive the necessary prevention and treatment needed and this contributes to the extremely high numbers of maternal and infant deaths caused by malaria. The study aimed to assess the knowledge and practice of malaria prevention among pregnant women in selected primary healthcare clinics in the Gombe metropolis and to determine the factors that influence their knowledge and practice of malaria prevention.

Methods: A cross-sectional study was conducted among 191 pregnant women attending selected primary healthcare clinics in the Gombe metropolis using a multi-stage sampling method. The data were collected using a pretested, interviewer-administered questionnaire and analyzed using SPSS version 23. A P-value of <0.05 was considered to be statistically significant at a 95% confidence interval.

Results: The mean age of the respondents was 25±5.2 years. Those who are aged 21 - 25 years constitute more than one-third (37.2%) of the study population. Of the total studied participants, 96(50.3%) had 1-3 children and 71(37.2%) were not employed. Less than half (41.4%) of the respondents had secondary school education. Greater proportions (72.8%) of the respondents had good knowledge of malaria prevention and 80.0% practiced malaria prevention during pregnancy. Occupation and monthly income were found to have a statistically significant association with knowledge of malaria prevention (P< 0.05) even though they were not predictors of knowledge of malaria prevention in this study

Conclusions: A good proportion of the participants had good knowledge of malaria prevention and practiced such during pregnancy. There is a need for continuous health education on malaria prevention to encourage more women to practice malaria prevention during pregnancy.

ID:180

Topic: AS06 Other - Antimicrobial resistance

WEST AFRICA'S LONG JOURNEY TOWARDS TUBERCULOSIS ELIMINATION TARGETSO. Obrero¹, E. Nkereuwem^{2,3}

¹Obafemi Awolowo University Teaching Hospital Complex, Wesley Guild Unit, Department Of Paediatrics, Ilesha, Nigeria, ²London School of Hygiene and Tropical Medicine, Tb Centre And Faculty Of Infectious And Tropical Diseases, London, United Kingdom, ³MRC Unit The Gambia at LSHTM, Vaccines And Immunity, Gambia, Gambia

Background: Since the End TB Strategy adoption by the WHO Member States in 2014, it has become imperative to monitor West Africa's progress towards achieving the milestones. This will help to identify the lagging countries requiring targeted interventions in order to achieve these ambitious goals. We set out to assess the sub-region's progress towards the End TB Strategy's milestones.

Methods: Using data from WHO's Global Health Observatory, we tracked the progress of two End TB Strategy indicators: TB incidence rates and the absolute number of TB deaths for the 15 members of ECOWAS from 2015-2019. We compared each country-specific and the sub-region's composite performance to the 2020 milestones of a 20% reduction in the TB incidence rate and a 35% reduction in the absolute number of TB deaths in 2020 (compared with the 2015 baseline).

Results: The median TB incidence rate in the sub-region was 159 per 100,000 (IQR 62-198) in 2015, ranging from 52 (Burkina Faso and Togo) to 361 (Guinea Bissau); this reduced by 14% to 137 per 100,000 in 2019 (IQR 54-197). Conversely, the sub-region's absolute number of TB deaths increased from 150,602 (95% CI 86,090-231,835) in 2015 to 163,013 (95% CI 94,100-252,077) in 2019. While Cape Verde reported less than 30 TB deaths/year throughout the period, Nigeria accounted for over three-quarters of annual TB deaths in the sub-region from 2015-2019. As of 2019, the sub-region was 6% points from achieving the 2020 TB incidence milestone. Conversely, TB deaths increased by 8%, further setting back the sub-region regarding the 2020 milestone.

Conclusions: TB still accounts for many deaths in West Africa. Although the TB incidence rate is reducing, the sub-region will fall behind in achieving the End TB targets at the current pace of progress. West Africa as a sub-region needs to make concerted efforts towards closing the gaps by 2030.

ID:107

Topic: *AS06 Other - Antimicrobial resistance*

FREQUENTLY REPORTED SYMPTOMS AMONG LEAD-ACID BATTERY CHARGERS IN GOMBE, NORTHEAST, NIGERIA

S. Umar¹, R. Ibrahim², A. Damji³, H. Maizare⁴, M. Gadanya⁵, O. Quadri⁶, A. Girei⁷, S. Panda⁸

¹Gombe State University/Federal Teaching Hospital, Gombe, Nigeria, Ophthalmology Department, Gombe, Nigeria, ²Gombe state University, Community Medicine, Gombe, Nigeria, ³Gombe State University/Federal Teaching Hospital, Gombe, Nigeria, Community Medicine Department, Gombe, Nigeria, ⁴Aminu Kano Teaching Hospital, Community Medicine, Kano, Nigeria, ⁵Bayero University Kano, Nigeria, Community Medicine Department, Gombe, Nigeria, ⁶Gombe State University/Federal Teaching Hospital, Gombe, Nigeria, Otorrlaryngology Department, Gombe, Nigeria, ⁷Gombe State University, Haematology/ Blood Transfusion Department, Gombe, Nigeria, ⁸Gombe State University, Anaesthesia, Gombe, Nigeria

Background: Lead toxicity is a multi-systemic disease produced by inhalation or ingestion of lead. It produces neurodevelopmental dysfunction in children and a wide spectrum of disease effects, including subclinical ones in adults. Though unaware of symptoms of lead toxicity, the lead-acid battery chargers in Gombe often experience symptoms that may not be unconnected to lead toxicity. The study aimed to determine lead toxicity awareness among lead-acid battery chargers in Gombe and to explore the symptoms they often experienced.

Methods: A cross sectional study was carried out among 100 lead-acid battery chargers. Interviewer-administered questionnaires were used to collect data which were analysed using SPSS version 23. Tables and percentages were used to summarize the data.

Results: The mean age of the respondents was 27±5.4 years. Those who are aged 21 - 30years constitute greater proportions (51%) of the study population. Of the total studied participants 57% had secondary level of education while 61% were single. 39% of lead-acid battery chargers were aware of toxic effects of lead-acid battery. Of the symptoms reported, chronic fatigue constitute 50%, chronic headache 44%, persistent numbness of hand 14%, chronic abdominal pain 13%, persistent metallic taste 8%, chronic joint pain 8% and others (persistent poor sleep, change in sex drive, hearing problems, sight problems, skin problems and progressive weight loss) 12%.

Conclusions: The study highlighted unawareness of the lead-acid battery chargers of interrelatedness of their reported symptoms to lead toxicity. There is the need for regular health education of health effects of lead-acid battery among the lead-acid battery chargers.

ID:100

Topic: *AS06 Other - Antimicrobial resistance*

AWARENESS, PERCEPTION OF RISK TO AND PROTECTION FROM EXTREME HEAT RELATED ILLNESSES AND CLIMATE CHANGE IN TWO RURAL COMMUNITIES IN NORTHWEST NIGERIA

S. Shehu¹, K. Hamza², A. Danmusa¹, S. Usman¹, S. Ojedian¹, A. Abubakar², J. Garba¹, F. Ibrahim¹

¹Ahmadu Bello University Teaching Hospital, Department Of Community Medicine, Shika, Zaria, Nigeria, ²Ahmadu Bello University, Department Of Community Medicine, Samaru, Zaria, Nigeria

Background: Globally, extreme heat has been recognized as a clear manifestation of climate change, a threat to human health and development. Not much attention has been given to issues of climate change, especially in the area of awareness and risk perception of exposure to extreme heat and effects of climate change. This study was therefore conducted to assess risk perception of exposure to extreme heat and effects of climate change among households in two rural communities of Kaduna State.

Methods: A community-based, cross sectional descriptive study was conducted among 206 households in Unguwan Rimi and Mararaban Guga communities using a pretested, semi-structured interviewer-administered questionnaire installed on Open Data Kit (ODK) software. Data was analyzed using IBM SPSS version 23.0. Univariate & bivariate analyses were conducted and level of significance was set at 5%.

Results: Mean age of respondents was 38.4±14.4 years most of whom were males 145 (70.4%). Majority of them 175(85.4%) were aware of heat related illnesses, and their main sources of information were radio 63(30.6%) and television 38(18.4%). Most 176(85.4%) were concerned about recurrent heat seasons and 163(79.1%) perceived themselves as being at risk of the effects of extreme heat and climate change. Almost all 192(93.2%) had access to electricity, but only 95(46.1%) owned cooling devices. About

105(51%) had abundant trees around their homes and 98(88.2%) had some adaptive measures to protect themselves from extreme heat. There was no statistically significant association between the respondent's sociodemographic characteristics and their awareness of heat related illnesses and Perception of risk to extreme heat.

Conclusions: The findings indicated that most of the respondents perceived themselves as being at risk of heat effects and climate change and had some form of protection from extreme heat. Efforts should be made by relevant stakeholders to enable communities adapt efficient protective measures against extreme heat.

ID:89

Topic: *AS06 Other - Antimicrobial resistance*

HEPATITIS B PREVALENCE AMONGST BLOOD DONORS IN EDWARD FRANCIS SMALL TEACHING HOSPITAL, THE GAMBIA

S.O. Bittaye, R. Darboe, R. Njie

University of The Gambia, School Of Medicine And Allied Health Sciences, Kanifing, Gambia

Background: Hepatitis B is a major public health problem in developing countries. In The Gambia, blood safety is one of the major concerns of the Ministry of Health and thus all blood donors are screened for hepatitis B. We therefore assess the prevalence of Hepatitis B amongst blood donors in Edward Francis Small Teaching Hospital.

Methods: A cross sectional prospective study was conducted from March 2021 to June 2021 at the blood bank in Edward Francis Small Teaching Hospital. A questionnaire was used to record Socio-demographic features, Type of blood donation, blood grouping and hepatitis B test results. Data analysis was done using STATA statistical package.

Results: We recruited 427 blood donors, mostly male patients 425 (99.6%) with a median age of 31 years (17-57 years). Replacement blood donors were 345 (80.8%), mostly family blood donors 231 (66.9%) and majority first degree relatives 136 (58.9%). The overall prevalence of Hepatitis B in our study population was 45 (10.5%). Patients with positive Hepatitis B were older 34.6 vs. 31.4 years ($p=0.005$), more likely to be first time blood donor ($p<0.001$), to be a farmer ($p=0.047$), to have O positive blood group ($p=0.017$) and less likely to be part of the Hepatitis B vaccinated cohort ($p=0.032$) as compared to patients with negative hepatitis B.

Conclusions: This study showed a high prevalence of hepatitis B amongst blood donors in Edward Francis Small Teaching Hospital and positive Hepatitis B blood donors were older, more likely to be first time donors and less likely to be part of the Hepatitis B vaccinated cohort. In The Gambia, young, regular blood donors are more likely to be better choice blood donors.

ID:120

Topic: AS06 Other - Antimicrobial resistance

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Conclusions: A good proportion of the participants had good knowledge of malaria prevention and practiced such during pregnancy. There is a need for continuous health education on malaria prevention to encourage more women to practice malaria prevention during pregnancy.

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Topic: AS06 Other - Antimicrobial resistance

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Conclusions: The findings indicated that most of the respondents perceived themselves as being at risk of heat effects and climate change and had some form of protection from extreme heat. Efforts should be made by relevant stakeholders to enable communities adapt efficient protective measures against extreme heat.

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Conclusions: This study showed a high prevalence of hepatitis B amongst blood donors in Edward Francis Small Teaching Hospital and positive Hepatitis B blood donors were older, more likely to be first time donors and less likely to be part of the Hepatitis B vaccinated cohort. In The Gambia, young, regular blood donors are more likely to be better choice blood donors.

ID:161

Topic: AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections

PREDICTORS OF IN-HOSPITAL MORTALITY AMONG HIV-POSITIVE ADULT PATIENTS AT THE JOHN F. KENNEDY MEDICAL CENTRE, MONROVIA, LIBERIA

I. Wachekwa¹, M. Adeiza², S. Chinenye³

¹John F. Kennedy Medical Centre, Internal Medicine, Monrovia, Liberia, ²Ahmadu Bello University Teaching Hospital, Medicine, Shika-Zaria, Nigeria, ³University of Port Harcourt/University of Port Harcourt Teaching Hospital, Medicine, Port Harcourt, Nigeria

Background: Though highly active antiretroviral therapy has resulted in people living with HIV having longer and healthier lives, AIDS continues to kill millions, especially in developing countries like Liberia. This study was conducted to identify the predictors of mortality among adult HIV-positive patients admitted into the medical wards at the John F. Kennedy Medical Centre in Monrovia.

Methods: This prospective study was conducted at the John F. Kennedy Medical Centre over a period of six months. Consenting patients aged ≥ 15 years and above with confirmed HIV infection were recruited. In-hospital progression and clinical outcomes were assessed and documented for each patient using a data proforma.

Results: A total of 210 participants were recruited with a mean age of 38.1 ± 12.0 years. Eighty-five percent ($n=179$) of the participants had HIV-viral loads above 1000 copies/ml. The overall mortality rate was 37.1% ($n=78$) and this was highest among those with WHO HIV clinical stage 4 disease. Factors associated with in-hospital mortality included a history of prior admission in the last 12 months, ($p=0.019$), CD4+ counts less <200 cells/mm, ($p<0.001$), haemoglobin levels less than 8g/dl ($p=0.038$), and platelet counts less than $50 \times 10^3/\text{mm}^3$ ($p=0.047$). The Glasgow coma score was the most significant independent predictor of in-hospital mortality. An abnormal score was associated with increased mortality (AOR 2.96, 95%CI [1.36-6.42]; $p=0.006$). Other independent predictors of in-hospital mortality were a history of weight loss (AOR 1.05, 95% CI [1.00-1.09]; $p=0.032$) and platelet counts less than $50 \times 10^3/\text{mm}^3$ (AOR 1.02, 95%CI [1.01-1.02]; $p<0.01$).

Conclusions: Mortality among HIV-positive adults admitted at the John F. Kennedy Medical Centre is high and patients present with advanced HIV disease (AHD). There is an urgent need to scale up HIV services delivery in Liberia to enhance early diagnosis, and implementation of package of care for AHD.

ID:162

Topic: AS05 Epidemic and Pandemic health care / 5.3 Triage and critical care

EPIDEMIOLOGICAL PROFILE AND GLYCEMIC OUTCOME OF PATIENTS REFERRED FOR GESTATIONAL DIABETES TO THE CLINIC MEDICALE II

M.A. Ndour¹, D. Diédhiou¹, D. Sow², J. Borges Preira¹, A. Sarr¹, M. Ndour Mbaye²

¹Cheikh Anta Diop University, Medicine, Dakar, Senegal, ²Cheikh Anta Diop University, Medecine, Dakar, Senegal

Background: Gestational diabetes (GD) is the subject of much controversy. However, all studies agree that there is a risk of occurrence of glycemic disorders after delivery. In this sense, we proposed to provide additional data concerning the prevalence of GDM, the epidemiological and clinical profile of the patients, and the glycemic outcome of the mother after delivery.

Methods: This is a retro-prospective and longitudinal study conducted in 50 patients referred for GDM to the Medical Clinic II of Abass Ndao Hospital, from March 2014 to January 2020.

Results: In our study, 60% of patients were followed retrospectively from 2014 to 2018 and 40% prospectively in 2019 and 2020. The epidemiological-clinical profile of the patients was that of a woman with an average age of 34 years, with a socioeconomic level considered low (52%), with a family history of T2DM in the first degree (58%), overweight or obese (44%), paucigest (46%) and pauper (44%). Gestational age at screening for GDM was classic between 24 and 28 SA in 42% of women. During pregnancy, 32% of the pregnant women required insulin therapy. Pregnancy was uncomplicated in 92% of cases and resulted in full-term delivery (86%) by cesarean section (60%) with the indication "prophylactic cesarean section for GDM" (47%). (47%). After delivery, all women performed a GAJ and 76% a HGPO. Among our patients, 38% developed a glycemic disorder, of which 58% had T2DM. We performed a bi-variate analysis that showed a correlation between the need for insulin therapy during pregnancy and the occurrence of T2DM after delivery ($p=0.042$).

Conclusions: GDM is a frequent pathology in our countries but still poorly known in practice. A harmonious multidisciplinary gynecological and diabetic management as well as a short and long term follow-up would allow to avoid and to detect complications.

ID:190

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

EXCESS MORTALITY ASSOCIATED WITH COVID-19 IN THE GAMBIA: RAPID MORTALITY ANALYSIS FROM 2018 TO 2020.

S. Lareef Jah¹, S.S. Sanneh², M. Ceesay³, Y.B. Bah², L.F. Manjang², J. Suso², F. Dibba⁴, S. Sambou⁵

¹WHO Country Office, Disease Prevention And Control, Banjul, Gambia, ²Ministry of Health, Directorate Of Health Research, Banjul, Gambia, ³WHO Country Office, Health System, Banjul, Gambia, ⁴Ministry of Health, Directorate Of Planing, Banjul, Gambia, ⁵Ministry of Health, Epidemiology And Disease Control, Banjul, Gambia

Background: Excess mortality (EM) has been suggested as the most appropriate indicator to measure the overall burden of the COVID-19 pandemic in terms of mortality. EM accounts for both the total number of deaths directly attributed to the virus as well as the indirect impact, such as disruption to essential health services. Most countries in Africa including the Gambia do not have a fully functional Civil Registration and Vital Statistics (CRVS) system to monitor the impact of COVID-19 on mortality.

Methods: In this cross-sectional study, we retrieved mortality data from all public health facilities and village health services from 2018 to 2020. The number of deaths before and after the onset of the pandemic in the country were compared and EM calculated. Data was analyzed using SPSS v27 and presented in tables and graphs.

Results: A total of 203 more deaths than was expected, corresponding to an excess of 4.3% was recorded in 2020. Among the seven regions in the country, three regions had increased EM (WR1: 850, WR2: 588 and CRR:278), while the remaining four had negative EM (LRR, URR, NBWR and NBER). There was also a 30% increase in excess mortality in the communities. Among the age groups, the largest proportion of EM was within those 85 years and above.

Conclusions: The EM of 4.3% (n=203) deaths may be attributed to COVID-19 both directly and indirectly. The disproportionate increase in EM within the three regions is commensurate with corresponding high incidence of COVID-19 reported within these regions. These regions also have high population density and contain major referral hospitals. On the other hand, the negative EM can be attributed to adherence to health protocols to prevent COVID-19. Our findings corroborate the challenges many countries face in accurately quantifying the death toll of COVID-19 and highlights the need to develop a robust CRVS.

ID:203

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

PROTOCOL OF CLINICAL TRIAL ON PREVENTION AND TREATMENT OF COVID-19 ASSOCIATED SEVERE PNEUMONIA IN THE GAMBIA: A SINGLE-BLIND RANDOMIZED TRIAL

A. Gai¹, F. Sillah², M. Gray-Johnson², C. Jones², C. Sarr², B. Dibba², B. Nadjm³, U. D'Alessandro³, H. Brotherton³, K. Forrest⁴, M. Bittaye⁵, C. Roberts⁶, E. Usuf⁶, A. Roca³

¹MRCG@LSHTM, EFSTH, Paediatrics, Bakau, Gambia, ²MRCG@LSHTM, EFSTH, Disease Control And Elimination, Bakau, Gambia, ³MRCG@LSHTM, Disease Control And Elimination, Bakau, Gambia, ⁴MRCG@LSHTM, Clinical Service Department, Bakau, Gambia, ⁵Ministry of Health, Director Of Health Services, Banjul, Gambia, ⁶Edwards Francis Small Teaching Hospital, Surgery, Banjul, Gambia

Background: Severe COVID-19 usually manifests as severe pneumonia which can lead to respiratory failure, sepsis, multi-organ failure and death. Randomised control trials (RCTs) performed in high-income countries have identified treatment options for severe COVID-19 including dexamethasone, though no clear therapy for milder disease has been identified. However, most ongoing treatment trials are outside of Africa. Optimization of prevention and treatment strategies, especially in the African continent, are urgently needed. We have designed the Prevention and Treatment of COVID-19 associated Severe pneumonia trial (PaTS-COVID) to investigate drug options to decrease severity and associated mortality of mild/moderate and severe COVID-19 cases, and decrease SARS-CoV-2 transmission to household contacts.

Methods: The PaTS-COVID trial is an adaptative Phase 3, individually-randomised, single-blinded trial with two cohorts: (i) Cohort 1 includes mild/moderate cases and their household contacts (HH) randomised into three arms (1:1:1) to evaluate the efficacy of ivermectin, the current investigational product, in preventing clinical progression and viral clearance. HH are followed for 14 days to assess the efficacy of the same drug in preventing COVID-19 infection (asymptomatic or symptomatic). Cohort 2 includes severe cases randomised into two arms (1:1) to evaluate the efficacy of low dose aspirin in preventing further deterioration and death. The design of the cohorts is dynamic, to adjust the drugs to be tested in both trial cohorts as evidence on current/new candidates emerges during the study or, on the contrary, for evidence of futility. For both cohorts a number of secondary outcomes are also investigated.

Results: NOT APPLICABLE

Conclusions: This is one of the few RCTs in an African setting that investigates the efficacy of drugs for treatment of mild to severe COVID-19 disease. Our findings will contribute to the global evidence base and may give and insight into ways to control the spread and treatment of COVID-19.

ID:198

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

FACTORS ASSOCIATED WITH ACCEPTANCE TO COVID-19 TESTING AMONG SYMPTOMATIC GAMBIAN INDIVIDUALS INVITED TO PARTICIPATE IN A RANDOMIZED CLINICAL TRIAL – A QUANTITATIVE STUDY

M. Grey-Johnson¹, J. Jones¹, A. Gai¹, C. Sarr¹, F. Sillah¹, B. Dibba¹, E. Usuf¹, A. Roca¹, U. D'Alessandro¹, A. Bah¹, C. Roberts², M. Bittaye³

¹MRCG@LSHTM, Disease Control And Elimination, Banjul, Gambia, ²EFSTH, Surgery, Banjul, Gambia, ³MOHSW, Mohsw, Banjul, Gambia

Background: To generate robust data on burden of SARS-CoV-2, individuals need to be tested. Sub-Saharan Africa faces major challenges for generating accurate information as testing is suboptimal due to limited infrastructure but also because individuals are reluctant to get tested due to fear of stigmatization and generalized misinformation surrounding the pandemic. To improve testing acceptance, it is important to understand which individuals are willing to be tested for COVID among those meeting criteria

Methods: We used a single-blinded COVID-19 randomized clinical trial* as a platform to compare sociodemographic, epidemiological and clinical characteristics of symptomatic individuals presenting with mild/moderate pneumonia that were willing to consent and provide a nasopharyngeal swab to be tested for SARS-CoV-2 versus those who declined consent. For those tested, we also compared such characteristics according to test results, to identify those individuals to whom testing needs to be targeted

Results: A total of 566 individuals aged ≥ 5 years were screened and sensitized and 242 (42.8%) consented. The mean age was 32.1 years (SD 17.7) among individuals who consented, 57.0% were females, 47.9% were Mandinka's, 31.4% had tertiary education and 52.9% were single. The mean age among those who did not consent was 28.4 years (SD 17.2), 63.0% were females, 44.4% were Mandinka's and 23.5% had tertiary education and 50.6% were single. Among those who consented 9.5% had a co-morbidity. Hypertension (6.2%) was the most reported co-morbidity followed by diabetes without complication (1.7%). Out of the 242 that consented 70 were SARS-Cov-2 positive and 53 (75.7%) of these agreed to continue in the study and were randomized

Conclusions: The low consent rate is unusual for clinical trials in our setting. Community engagement has been ongoing to create awareness not just for the study but to de-stigmatize COVID-19. Understanding who consents will be very helpful in future sensitization for research studies

ID:184

Topic: *AS02 Age-related healthcare / 2.1 Maternal, newborn and child health*

THE INCIDENCE OF ZINC DEFICIENCY AMONG NEWBORNS DELIVERED AT FEDERAL MEDICAL CENTRE UMUAHIA, ABIA STATE.

O. Okolo¹, N. Ibeziako², M. Ughasoro², B. Ibe²

¹Federal Medical Centre Umuahia, Department Of Paediatrics, Umuahia, Nigeria, ²University of Nigeria Teaching Hospital, Department Of Paediatrics, Enugu, Nigeria

Background: The risk of zinc deficiency is higher among low income countries. Zinc deficiency in newborns, if un-identified and treated, has been documented to persist into childhood with its attendant complications.

Methods: This study was a descriptive cross-sectional study. Newborns delivered in the hospital at gestational age range from 28 – 42 weeks, were recruited into the study. Umbilical cord blood was collected at birth. Atomic Absorption Spectrophotometer was used to assay serum zinc level. Serum zinc level $< 65\mu\text{g}/\text{dl}$ was considered as zinc deficiency.

Results: The 120 newborns studied comprised of 40 preterm low birth weight, 20 term low birth weight and 60 normal weight babies. The prevalence of zinc deficiency was 42.5% among the preterm low birth weight, 70% among the term low birth weight and 35% among the normal weight newborns.

Conclusions: This study showed that the prevalence of zinc deficiency among newborns, especially term low birth weight babies, is high. Routine serum zinc assay of the term low birth weight newborns is recommended.

ID:182

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

**KNOWLEDGE, PERCEPTION AND ATTITUDE OF PATIENTS AT HUBERT KOUTOUGOU MAGA (HKM)-
NATIONAL UNIVERSITY HOSPITAL CENTER (NUHC) OF COTONOU ABOUT COVID-19**

A. Azon Kouanou¹, A.F. Wanvoegbe², A.K. Agbodande¹, G.M.S. Missiho¹, M.Y. Sokadjo¹, A.A.G. Falade², D.M. Zannou², F. Houngebe²

¹*Service of internal medicine, Hubert Koutoukou MAGA National Hospital and University Center, Littoral, Cotonou, Benin,* ²*Service of internal medicine, Hubert Koutoukou MAGA National Hospital and University Center, Littoral, COTONOU, Benin*

Background: COVID-19 has been noticed in Benin since March 2020. Various measures have been put in place to curb the epidemic. The objective of the study is to evaluate the knowledge and perception of patients at the HKM-NUHC about COVID-19. This was a cross-sectional study with descriptive and analytical purposes. Data were collected on 7 months. Included were patients who came for medical consultation. Data analysis was done with R 4.1.0 software. A total of 353 respondents were included in the study. The sex ratio was 0.81. The mean age was 48.9 ± 16.8 [10; 92] years. The level of education was at least high school in 82.2% of the cases. The agent responsible for COVID-19 and the mode of transmission were not known, respectively, by 31.7% and 89.2% of the participants. Barrier measures were known by 46.2%, while clinical manifestations were known by 89.0%. Only the level of education was associated with knowledge of COVID-19 ($p < 0.001$).

Methods: This was a cross-sectional study with descriptive and analytical purposes. Data were collected from July 1, 2020 to January 1, 2021. The participants were included in the outpatient clinic of the specialized medical services of the HKM-NUHC. Data analysis was done with R 4.1.0 software.

Results: A total of 353 respondents were included in the study. The mean age was 48.9 ± 16.8 with a sex ratio of 0.81. The level of education was at least high school in 82.2%. The agent responsible for COVID-19 and the mode of transmission were not known, respectively, by 31.7% and 89.2% of the participants. Barrier measures were known by 46.2%, while clinical manifestations were known by 89.0%. The level of education was associated with knowledge of COVID-19 ($p < 0.001$).

Conclusions: Findings revealed that good knowledge of the pandemic was related to the level of education. A readjustment of communication strategies towards less educated groups would be recommended.

ID:178

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

**INDIRECT VICTIMS OF COVID-19: EFFECT OF CLOSURE OF THE MEDICAL OUTPATIENT SERVICES ON
NON-COVID-19 PATIENTS**

J.A. Ogunmodede¹, A.J. Ogunmodede², M.O. Bojuwoye¹, A.H. Bello³, O. Buhari², P. Kolo¹

¹*University Of Ilorin, Medicine, Ilorin, Nigeria,* ²*University Of Ilorin Teaching Hospital, Psychiatry, Ilorin, Nigeria,* ³*University Of Ilorin Teaching Hospital, Medicine, Ilorin, Nigeria*

Background: In order to reduce COVID-19 transmission and protect healthcare workers, the outpatient departments (OPDs) in many hospitals worldwide were closed down in the early days of the pandemic. Patients being managed for chronic medical illnesses who subsequently suffered reduced access to healthcare have been described as “the patients left behind”. The study aimed at assessing the impact of the closure of the Medical OPD of the University of Ilorin Teaching Hospital (UITH) during the government-declared lockdown between March 23, 2020 and June 8, 2020 on the health and perceived well-being of patients with chronic medical illnesses.

Methods: A cross-sectional study of 166 patients with chronic medical illnesses attending the MOPD in UITH.

Results: Mean age of participants was 49.5 ± 18.5 years, 82 (49.4%) were male, median duration of attending MOPD was 24 months (IQR 12-36). 84 patients (50.6%) perceived a negative affectation of their well-being by the closure of MOPD. Being >50 years was associated with a perception of negative affectation of well-being ($P = 0.02$). 130 patients (78.2%) had clinic appointments that fell within the period under review. 61 (69.3%) of the 88 patients who had medical complaints during the period could not reach a doctor and this was associated with a perception of negative affectation of their well-being. The commonest action they took was to do nothing (27.9%), two (3.3%) resorted to herbal concoctions. 49 (29.9%) felt their complaints were urgent.

Conclusions: Our study identifies that patients with chronic medical illness are potential victims of COVID-19 related disruption of healthcare services. Healthcare managers in Nigeria must develop alternatives such as telemedicine that sustain face-to-face medical interaction during eventualities.

ID:168

Topic: *AS05 Epidemic and Pandemic health care / 5.3 Triage and critical care*

PRAGMATIC OXYGEN PROVISION SOLUTIONS IN A RESOURCE CONSTRAINED SETTING: THE MRCG AT LSHTM CLINICAL SERVICES DEPARTMENT EXPERIENCE

B. Awokola¹, B. Nadjm¹, C. Vandi², S. Tkac³, A. Bonell⁴, K. Forrest¹

¹MRC Unit The Gambia at LSHTM, Clinical Services Department, Fajara, Gambia, ²MRC Unit The Gambia at LSHTM, Biomedical Engineering, Fajara, Gambia, ³Make3D Company Limited, Innovation & Design, Brufut, Gambia, ⁴London School of Hygiene & Tropical Medicine, Planetary Health Group, Fajara, Gambia

Background: Oxygen is on the WHO essential drug list and has become even more critical during the COVID-19 pandemic. Against a background of erratic oxygen cylinder supply from the single oxygen plant in The Gambia, pragmatic solutions became necessary to safely provide oxygen to hypoxic patients. With a reliable electricity supply, oxygen concentrators were our most reliable source of clinical oxygen. This abstract describes our creative efforts to maximise this.

Methods: We developed in-house fused deposition modelling 3-D printed items (Y and T connectors), in order to combine the flow from multiple Diamedica[®] oxygen concentrators and/or oxygen cylinders and deliver high flow oxygen to home CPAP devices, facemasks, non-rebreather bags etc. We measured the oxygen concentration delivered at varying flow rates by the various combinations using a Fluke biomedical VT900[®] gas flow analyser. These data enabled clinicians to safely and effectively provide oxygen and CPAP to patients with type 1 respiratory failure.

Results: Peak oxygen delivery from concentrators was observed between 6 and 8 L/min flow. Higher flows yielded lower oxygen concentrations. Connecting two concentrators together at 7.5L/min each (15-Litres altogether) yielded the highest concentration non-cylinder high-flow oxygen delivery. Using a combination of cylinders and oxygen concentrators entraining a total of 30L into Heinen & Lowenstein Ventimotion 2 CPAP Devices, we were able to provide 74-86% FiO₂.

Conclusions: Through creative manipulation of resources available in our setting, we have been able to successfully deliver oxygen to our COVID-19 and other patients. We recommend this for similar settings with similar constraints (*See Appendix 1*).

ID:22

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

COVID-19 MORTALITY IN A PATIENT WITH LEFT ATRIAL MYXOMA COMPLICATED BY BACTERIAL ENDOCARDITIS, MYOCARDIAL INFARCTION AND CONGESTIVE CARDIAC FAILURE

S. Attoh¹, K. Adomako², L. Edusei^{1,2}, F. Hobenu¹, K. Agyemang-Bediako¹, J. Akamah³, E. Asumanu¹, R. Fatchu¹, P. Akakpo¹

¹37 MILITARY HOSPITAL, Anatomical Pathology, ACCRA, Ghana, ²37 MILITARY HOSPITAL, Cardiothoracic Surgery, ACCRA, Ghana, ³37 MILITARY HOSPITAL, Medicine, ACCRA, Ghana

Introduction: Coronavirus disease 2019 (COVID-19) is caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) infection and mortality is common among people with comorbid conditions. Diseases of the cardiovascular system appears to be the most frequent comorbid condition. We present a case of Left Atrial Myxoma in a patient post thyroidectomy, complicated by congestive cardiac failure, bacterial endocarditis and COVID-19 pneumonia. Atrial myxoma is the most common primary cardiac tumor consisting 85% of all reported cardiac tumors. Myxomas are a rare clinical entity with a reported incidence of 0.5–0.7 per million population and prevalence of < 5 per 10,000 in surgically resected cases. Most tumors occur in the left atrium with associated embolic phenomenon occurring in 40-50% of patients.

Short Case: The case is a 35-year-old woman with known Left Atrial Myxoma awaiting surgery presenting with signs and symptoms of biventricular heart failure with a negative SARS-CoV-2 test. She deteriorated and died while being optimized medically before cardiac surgery. Postmortem confirmed a left atrial myxoma, myocardial infarction, bacterial endocarditis, congestive cardiac failure and advanced COVID-19 pneumonia.

Conclusions: Though uncommon, cardiac myxomas may result in mortality if not managed promptly. COVID-19, may complicate the management of patients with Atrial Myxoma as reported in this case with resultant increased negative outcome. In addition to the COVID-19 pneumonia, our case had thrombi, bacterial endocarditis and old myocardial infarction

ID:57

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

CLINICAL CHARACTERISTICS OF COVID 19 PATIENTS IN THE GAMBIA

S.O. Bittaye¹, A. Jagne¹, R. Njie¹, O. Nyan²

¹University of The Gambia, School Of Medicine And Allied Health Sciences, Kanifing, Gambia, ²Edward Francis Small Teaching Hospital, Internal Medicine, Banjul, Gambia

Background: The first case of COVID 19 from sub-Saharan Africa was reported in Nigeria on 27th of February and in The Gambia on the 17th March 2020. We thus assess the clinical characteristics of COVID 19 patients in The Gambia.

Methods: We retrospectively reviewed the data of all the confirmed COVID 19 patients from the national database (DHIS2) from 17th March 2020 to 19th October 2020. Demographic data, co-morbidities and symptoms were all collected. Mann-Whitney U-test and Students t-test were used to compare continuous variables and Chi-square test was for discrete variables.

Results: A total of 3264 patients tested positive and were recruited into the study. The median age of our patients was 35 years (2wks-100yrs) and 1923 (59.4%) were men. Majority 2730 (84.1%) of the patients were from western region 1 and only 269 (8.2%) were admitted at The National treatment centre (NTC). Two hundred and forty seven (8.7) patients had co-morbidities, mostly Hypertension 142 (4.9) and Diabetes Mellitus 95 (3.3). Most of our patients were asymptomatic 2463 (78.9) and the most common symptoms were cough 378 (12.1) and fever 343 (11). Symptomatic patients were older 43.3 vs 36.9 years ($p < 0.001$) and more likely to have co-morbidities ($p < 0.001$) compared to the asymptomatic. Those admitted at the NTC were older 50 vs 37.3 years ($p < 0.001$), more likely to be symptomatic ($p < 0.001$) and to have co-morbidities ($p < 0.001$) compared to those in non-treatment centre isolation facilities.

Conclusions: In this study, older patients with co-morbidities are more likely to be symptomatic and to be admitted at The National treatment centre. In The Gambia, these results confirm the need for targeted screening of the high risk population and expansion of testing facilities in the rural areas.

ID:47

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

OUTCOME OF FIXED DOSE COMBINATION OF TENOFOVIR, LAMIVUDINE AND DOLUTEGRAVIR IN RURAL HIV CARE FACILITY IN NIGERIA

C. Ogbuagu¹, E. Ogbuagu¹, E. Okoh¹, U. Olli¹, U. Okereke¹, O. Emelumadu¹, S. Kazibwe², G. Eleje¹

¹Azikiwe University Teaching Hospital Nnewi Nigeria, Community Health, Nnewi, Nigeria, ²Azikiwe University Teaching Hospital Nnewi Nigeria, Community Health, Nnewi, Uganda

Background: Antiretroviral therapy (ART) has significantly increased the lifespan of people living with HIV. Currently, fixed dose combination therapy (Tenofovir, Lamivudine, and Dolutegravir) is being introduced in most countries in the Sub-Saharan Africa. There is need for a clinical and immunological assessment of HIV patients transitioned to this new therapy over a period of 2 years

Methods: This retrospective cohort study was carried out in a Comprehensive Healthcare Centre (CHC), a facility affiliated with Nnamdi Azikiwe University Teaching Hospital, Nigeria. The primary outcome measure was the proportion of patients whose viral load was suppressed to < 20 copies/ml. The plasma viral load (HIV-RNA) assay was done using real time PCR and CD4⁺ T-lymphocyte (CD4⁺) counts were estimated using Flow Cytometry. The exclusion criteria were patients who has invalid database and patients with comorbidities associated with HIV.

Results: A total of 537 HIV1 sero-positive patients were enrolled for ART care over a period of 2 years (2017-2018). Females in the age group (41-50 years) constituted the bulk (36.9%) of the patients whilst the least (5.3%) were males in the age group (8 to 30 years). The mean CD4 count of patients was 847.35 cells/mm³. More females (45.9%) had CD4⁺ counts over 500 cells/mm³ whilst the percentage of males with CD4⁺ cell counts over 500 cells/mm³ was 43.8%. Majority, 405 constituting 75.4% of the patients have suppressed viral load (< 20 copies/ml). Patients with unsuppressed viral loads were more among Females with CD4⁺ counts in the range of 200-499 cells/mm³ and this may be as a result of other comorbid associated factors.

Conclusions: Dolutegravir-based fixed-dose combination therapy suppressed viral load to < 20 copies/ml in more than 75% of patients receiving the therapy. Enhanced adherence and effective doctor-patient relationship could be associated with the viral suppression observed in this study.

ID:42

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

A RETROSPECTIVE CROSS SECTIONAL STUDY OF CLINICAL CHARACTERISTICS AND PROGNOSTIC FACTORS OF COVID 19 PATIENTS ADMITTED TO A GAMBIAN TEACHING HOSPITAL

S.O. Bittaye¹, A. Jagne¹, O. Nyan², R. Njie¹

¹University of The Gambia, School Of Medicine And Allied Health Sciences, Kanifing, Gambia, ²Edward Francis Small Teaching Hospital, Internal Medicine, Banjul, Gambia

Background: First case of Novel coronavirus disease (COVID 19) was diagnosed in The Gambia on the 17th March 2020. We investigate the clinical characteristics and prognostic factors of COVID 19 patients admitted at a Gambian teaching Hospital.

Methods: One hundred and thirty seven COVID patients were recruited. Clinical features, treatment and outcomes were recorded. Univariate and multivariate logistic regression analyses were used to assess prognostic factors of survival in our patients.

Results: The median age of our patients was 60 years and 86 (62.8%) were men. Eighty nine (64.9%) patients had co-morbidities, mostly Hypertension 51 (37.2%) and Diabetes Mellitus 47 (34.3%). The most common symptoms were cough 71 (51.8%) and dyspnea 53 (38.7%). Patients with SPO₂ ≤ 93% were older 63.2 vs. 53.1 years (p=0.001), more likely to present with dyspnea (p=0.002), Cough (0.035), higher respiratory rate (p<0.001) and co-morbidities (p=0.009) compared to patients with SPO₂>93%. Non survivors were older 63.2 vs 53.1 years (p=0.001), more likely to present with higher respiratory rate (p=0.014), lower oxygen saturation (p=<0.001), to be referred from lower level health facility (p=0.012) and to have Diabetes mellitus (p=0.007) as compared to survivors. Our cumulative mortality was 49 (35.8%). Multivariate analysis showed increasing odds of mortality independently associated with Age ≥ 60 years (odd ratio, 2.87: 95% CI, 1.21 to 6.83, p=0.012), Diabetes mellitus (odd ratio, 3.47: 95% CI, 1.44 to 8.36, p=0.006), oxygen saturation ≤ 93% (odd ratio, 3.18: 95% CI, 1.27 to 7.99, p=0.014) and referral from lower level health facility (odd ratio, 2.87: 95% CI, 1.11 to 6.82, p=0.017).

Conclusions: Older patients, patients with Diabetes Mellitus, hypoxemia or patients referred from lower level health facilities are at increased risk of death. In resource limited countries where emergency medicine resources are limited, our results may help guide the clinical management of patients with severe COVID-19.

ID:88

Topic: *AS05 Epidemic and Pandemic health care / 5.1 Covid-19/Ebola/Lassa fever/Meningitis and emerging infections*

HOPE AND RELIGIOUS WELLNESS AS PORTALS FOR SUBJECTIVE WELL-BEING AMONG ADULT NIGERIANS IN THE EARLY PHASE OF COVID-19 PANDEMIC IN NIGERIA: A CROSS-SECTIONAL STUDY

G. Iloh¹, B. Akodu², M. Chukwuonye³, M. Okwejie⁴

¹FMC Umuahia And Rhema University Aba, Family Medicine, Umuahia, Nigeria, ²Lagos University Teaching Hospital & University of Lagos, Department Of Family Medicine & Department Of Community Health And Primary Care, LAGOS, Nigeria, ³Federal Medical Centre, Umuahia, Abia State, Nigeria, ⁴Department Of Family Medicine, UMUAHIA, Nigeria, ⁴University of Calabar Teaching Hospital, Nigeria, Department Of Family Medicine, Calabar, Nigeria

Background: COVID-19 pandemic-related subjective well-being is a major and escalating clinical and public health challenge world-wide. As members of human family, adult Nigerians are likely to have variable affectations of COVID-19 pandemic on their hope, religious wellness and subjective well-being. Aim: The study was aimed at determining the association of hope and religious wellness with subjective well-being among adult Nigerians in the early phase of COVID-19 pandemic in Nigeria.

Methods: This was a cross-sectional study carried out on 400 adults from April to May 2020 in South-eastern Nigeria. Hope and religiosity were assessed using 12-item Adult Dispositional Hope Scale and 5-item Duke University Religion index tools. Subjective well-being was determined using 3-item self-reported health status questionnaire.

Results: The age range of the participants was 18-84 years [mean =53 (±11.6)]. There were 214(53.5%) females. Two hundred and eleven(52.8%) of the respondents rated their current health status as moderate. There was high level of hope and religious wellness. Subjective well-being was significantly reduced during the early phase of COVID-19 pandemic compared to previous six months before the pandemic(P<.05). Ordinal regression analysis showed that both hope(P<.05) and religious wellness(P<.05) predicted self-reported health status.

Conclusions: Conclusion: The study revealed that hope and religious wellness are associated with subjective well-being. However, subjective well-being was reduced during the early phase of COVID-19 pandemic compared to previous six months before the pandemic. Therefore, there is the need to be attentive to patients hope, religious wellness and subjective well-being during medical encounters in COVID-19 pandemic in the region.

