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52nd - 53rd Annual General and Scientific Conference of the Paediatrics Association of Nigeria (PANCONF), 18th - 22nd January, 2022

001

CAR-94: Electrocardiography in children in Abakaliki. Are we doing enough?

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Background: Electrocardiography is usually used to assess the electrical activity of the heart, it has been found to be very useful in many aspects of medicine apart from cardiology. The access to this noninvasive investigation is still not encouraging despite its usefulness in Paediatrics practice.

Objectives: To determine the indications of ECG and its mode of health financing in children in Abakaliki.

Methods: This was a retrospective study of ECG indications in children over a 5-year period in a tertiary center in (AEFUTHA) Abakaliki, Records of ECG done over the period, clinical indications, age, sex, and mode of payment were recorded in proforma. Data was analysed using SPSS version 20.

Results: A total of 179 ECG requests were made over the five-year period, there were 102 males (59.8%) and 72 females (40.2%). The commonest indication for ECG request was cardiovascular related diagnosis 125(69.8%) and the adolescent age groups comprised 73.1% of the subjects while subjects less than 4yrs comprised 14%. The major source of health financing of ECG was out of pocket expenditure 70.4%. The year 2019 had the highest record of ECG 30.2% while 2017 the lowest 17.3%.

Conclusion: ECG request rate is low in Abakaliki, though the commonest indication is still due to cardiovascular diseases, efforts should be made to scale up the access to the investigation through cost reduction and health insurance.

002

CAR-95: Electrocardiographic abnormalities in Children with human immunodeficiency Virus Infection at the Federal Medical Centre, Umuahia.

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Background: With the availability of Highly Active Anti-Retroviral Therapy (HAART) and the attendant increased life span of HIV-infected children, late complications of the disease, especially cardiac complications

have become a growing problem in these patients. Cardiovascular complications of HIV start early in the course of the disease, though they may be asymptomatic until later in life when they manifest with life threatening symptoms. The electrocardiogram is an invaluable tool in early diagnosis of these abnormalities. There are however limited local studies on the electrocardiographic evaluation of HIV-infected children.

Objectives: This study aimed to determine the prevalence and types of ECG abnormalities among HIV-infected children aged 18 months to 14 years old at the Federal Medical Centre, Umuahia, Abia state.

Methods: It was a hospital based comparative cross-sectional study involving 56 randomly selected HIV-infected children carried out from June to November, 2018. Relevant information was obtained through questionnaires and medical records. Participants were examined and thereafter, underwent a 12-lead ECG assessment. Information obtained were analysed. P value was set at < 0.05.

Results: ECG abnormalities were observed in 42.9% of HIV-infected subjects. Left ventricular hypertrophy was the commonest ECG abnormality among the HIV-infected subjects (14.3%).

Conclusion: ECG abnormalities are quite prevalent among HIV-infected children. It is recommended that routine ECG evaluations be done at diagnosis and follow-up of these patients.

003

CAR-139: A Report of 3 Cases of Down syndrome Presenting with Conotruncal Abnormalities of the Heart

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Background: Down syndrome is the commonest chromosomal abnormality that exists. The condition is associated with multiple congenital anomalies. The commonest congenital heart disease seen in Down syndrome is the atroventricular septal defect (AVSD). Conotruncal abnormalities are reportedly rare in patients with Down syndrome. We report 3 cases of conotruncal abnormalities in Down syndrome.

Objectives: To report 3 cases of Down syndrome with conotruncal abnormality of the heart

Methods: A review of 3 cases of Down syndrome with conotruncal abnormality of the heart seen in three different health facilities in Delta Central Senatorial District. Data collected included history, examination findings, chest radiograph, echocardiography report and image.

Results: D A was a 3 year old boy, a known Down syndrome patient who presented to DELSUTH with persistent fever of a month duration. Echo report revealed a diagnosis of TOF. Patient developed complications of cerebral abscess and died 10 days post operation.

D E was a term female neonate delivered with classical features of Down syndrome and anorectal malformation. Echo report revealed TOF and AVSD. Patient had colostomy and was apparently doing well at home but mother found the patient dead on the 10th day of life. A F was a 4 month old male infant with features of Down syndrome and recurrent cyanotic spells. Echo findings revealed pulmonary stenosis from anteriorly displaced infundibulum as seen in TOF with associated AVSD. The patient is awaiting surgical intervention.

Conclusion: Conotruncal abnormalities can occur in Down syndrome and worsen the prognosis of the affected patient

004

CAR-202: The challenges of cardiovascular morbidities in the care of early preterm newborn at the Federal Medical Center Asaba, Nigeria: the role of routine Echocardiography in their management

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Background: Preterm birth, an important cause of neonatal morbidity and mortality, is rising globally (11%) and in our local environment is at (10%). Particular attention has been focused on lung maturity and respiratory function. Reports on specific focus on its cardiovascular consequences in early life is lacking. The early life stress associated with lung immaturity can be associated with significant short- and long-term cardiopulmonary morbidity. The clinical course is infrequently protracted by cardiovascular dysfunction which pose enormous challenges.

Method: We reviewed case summaries of the extreme preterm babies with clinically detected cardiovascular morbidities and identified these four for case report series to highlight the challenges posed by cardiovascular morbidities/cardiac shunts other than a patent ductus arteriosus (PDA), and the role of Echocardiography in specific diagnosis and targeted care on the outcome of the extreme preterm babies.

Results: The clinical course for extreme preterm newborns was complicated by cardiac abnormalities; one case had supraventricular tachycardia and three others had intra cardiac shunts that were demonstrable on Echocardiography. The availability of the skills and the equipment for echocardiography facilitated the specific diagnosis. One of them died at the postnatal age of 120 days. The duration of admission in the other three patients ranged from 50 to 90 days.

Conclusion: Care of the very preterm in low-middle-income settings requires multi-team collaboration and Echocardiographic equipment for specific diagnosis and possible intervention strategies.

005

CAR-211: Right ventricular endomyocardial fibrosis in a 7-year-old Nigerian child: A revisit (A case report)

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Background: Endomyocardial fibrosis (EMF) is a poorly understood idiopathic disorder characterised by the development of restrictive cardiomyopathy. It is a disorder of the tropics and subtropics and was once the second commonest cause of acquired heart disease in Nigeria. Its diagnosis is often made when the disease is advanced and the prognosis is invariably poor at this stage. Reports of EMF have become increasingly rare in Nigeria in recent years. This seeks to highlight EMF as a still present and potentially important cause of heart failure in Nigerian children.

Methods: Reports from the records of a 7-year-old male referred to the paediatric cardiology clinic were reviewed. Details of his treatment, progress and ultimate discharge were documented.

Results/Case Report: A 7-year-old male referred to the paediatric cardiology clinic with complaints of abdominal and facial swelling, with no difficulty in breathing and exercise intolerance. Examination revealed a classic “egg-on-stick” appearance. Apex was not displaced, and heart sounds were distant. Liver was enlarged but non tender and there was demonstrable ascites. A 2D Echo showed massive right atrial enlargement with severe tricuspid regurgitation and fibrosis within the right ventricular cavity which was small. There was a moderate-sized pericardial effusion. Electrocardiogram showed right atrial enlargement with low-voltage complexes. FBC showed eosinophilia (20% TWBC)

Conclusion: EMF, though increasingly rare, remains an important cause of childhood cardiac morbidity and mortality in our environment. A high index of suspicion is critical as the prognosis remains poor.

006

CAR-214: Pattern and outcome of congestive heart failure admitted in an Emergency Paediatric Unit of a Tertiary hospital in Sokoto State, North-western Nigeria

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Background: Congestive heart failure (CHF) is a major cause of mortality in the paediatric emergency. It is the usual presentation of many structural heart diseases and non-cardiac causes of CHF which may be readily preventable. Audit of causes of heart failure is necessary to ensure adequate management and prevention.

Objective: The aim was to describe the pattern and outcome of CHF admitted in an emergency paediatric unit

(EPU) of a tertiary hospital in Sokoto.

Methods: A cross-sectional study conducted in the EPU over a 48-month period (May 2019 to April 2021). Cases of children aged 1 month to 15 years who were admitted with heart failure were recruited. The demographic characteristics, cause of heart failure, and treatment outcome were entered into a study proforma. Data was analysed using IBM SPSS version 25.

Results: Of the 7158 children, 155 (2.2%) had CHF. Majority 103 (66.5%) were aged 1 month to 5 years. Age range was 1 to 180 months with mean of 55.4 (± 53.7) months, median of 36 (IQR-86months). Males accounted for 84 (54.2%) with ratio of 1.18:1. The commonest causes of heart failure were congenital heart disease (CHD) 40;25.8%, severe anaemia 34;21.9%, bronchopneumonia 30;19.2%, rheumatic heart disease (RHD)18;11.6% and dilated cardiomyopathy 16;10.3%. There were 45 (29.0%) deaths and mortality was highest within the first year of life 15/29; 51.7%. CHD, RHD and severe anaemia accounting for the highest mortality.

Conclusion: Structural heart diseases especially CHD, severe anaemia and bronchopneumonia are significant causes of heart failure and mortality in this environment. Wholistic approach to prevention is necessary to reduce the burden.

007

CAR-233: Paediatric heart failure In Uyo: A 3-Year retrospective analysis

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Background/Aim: Paediatric heart failure is a condition that continues to present challenges in management in our environment where there exists a knowledge gap about its prevalence, common causes, presentation, treatment, and outcomes hence the aim of this study.

Methods: A retrospective analysis of the case notes of all children who were diagnosed and managed for heart failure from January 2019 – October 2021 was undertaken. Data obtained included age, sex, presenting features, primary diagnosis, treatment modalities, duration of hospital stay and outcomes.

Results: A total of 2226 children were admitted over the study period with 67 children diagnosed with heart failure giving a prevalence rate of 3% although only 47 case notes could be retrieved giving a case retrieval rate of 70%. There were 26 (55.3%) males and 21 (44.7%) females (M:F ratio1.2:1). Mean age of patients was 32.6 months (± 52.23) with 28 (59.6%) of them being infants. Bronchopneumonia was the commonest cause of heart failure 30 (63.8%) either singly or in combination with acyanotic congenital heart disease and Trisomy 21 followed by severe anaemia in 15 (31.9%). Average duration of hospital stay was 6.9days (± 5.08) and average cost of admission was N13,266. Twenty-three patients were discharged (48.9%), while 12 (25.5%) either left against medical advice or died.

Conclusion: Heart failure remains an important cause of

morbidity and mortality in children in our environment arising from largely preventable causes. Urgent steps such as patient care giver education, immunization and screening for congenital heart disease are needed to reduce its effect on children in our environment.

Paediatric Dermatology

008

DER-13: Epidemiology and pattern of superficial fungal infections among primary school children in Enugu South-East Nigeria

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Background: Superficial fungal infections (SFIs) are prevalent among school children and result in significant morbidities which may lead to school absenteeism or school drop-out and hence setback in the education of the child. Differences exist in the epidemiology and pattern of SFIs among children in various geographical locations. Community-based studies on diseases are a true reflection of their pattern in that locality. There are no recent studies on this regard in South-East Nigeria despite the high prevalence reported in the country.

Objective: This study aimed to determine the epidemiology and pattern of SFIs among children in rural and urban communities in Enugu, South-East Nigeria for evidence-based effective interventions in this region

Methods: A comparative and descriptive cross-sectional study of primary school children from randomly selected three urban and three rural communities respectively. The sample size determined using the formula for comparison of two proportions. A total of 1662 pupils with 831 recruited through a multistage sampling method from urban and rural primary school populations respectively. Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 24.

Results: Of the 1662 children recruited, 748 had SFIs with 502 (60.4%) seen in urban and 246 (29.6%) in rural communities. Tinea capitis was the most prevalent (73.7%) SFI and statistically different between urban (40.3%) and rural (26.1%) communities ($p < 0.001$). The prevalence of SFIs was higher among urban female and rural male pupils. Children aged 9-12 years and 5-8 years were most commonly affected in the urban and rural communities respectively. The personal hygiene of the children was worse in both communities.

Conclusion: Emphasis on health education on SFIs and good personal hygiene will reduce the incidence of SFIs in the communities especially the urban dwellers which will encourage school attendance, concentration in class, and child education.

009

DER-17: Spectrum of skin disorders among primary school children in Umuahia, Southeast Nigeria

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Background: Skin disorders among primary school children are common in many countries, with a variable spectrum. They can constitute major health problems, resulting in considerable discomfort, parental anxiety and embarrassment to the child.

Objective: To determine the prevalence and pattern of skin diseases among primary school children in Umuahia South Local Government Area, Abia State.

Methods: This was a descriptive cross-sectional study carried out from December 2016 to March 2017 among school children aged 5-15 years consecutively recruited from their various primary schools. A multistage sampling technique was employed to select the schools to be studied, number of subjects to be selected from each of the schools and the number of subjects to be recruited from each class of the schools studied.

Result: A total of 1560 children aged 5 to 15 years with a mean age of 8.74 ± 2.079 years were studied. The overall prevalence of skin diseases was 40.2%, 46.0% in public and 33.2% in private schools ($p < 0.001$). Rash was the most common presentation while Tinea capitis, Pityriasis versicolor and scabies were the most common skin diseases noted among the school children.

Conclusion: The prevalence of skin diseases in the population studied is high especially in public schools. The most common manifestation of skin disease is rash and the commonest type of skin disease is Tinea capitis. It is recommended that standard hygienic practices should be maintained by primary school children and their parents/caregivers to prevent skin diseases.

Keywords: Skin diseases, prevalence, school, child, Nigeria

010

DER-18: Prevalence and pattern of mucocutaneous manifestations in HIV- infected children attending paediatric HIV clinic of federal medical centre Umuahia, Nigeria

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Background: Human Immunodeficiency Virus (HIV) infection is associated with a wide range of mucocutaneous disorders which are important markers of the severity of the disease and can be the initial presenting feature of HIV infection. High prevalence is reported globally.

Objective: The study is carried out to determine the prevalence and types of mucocutaneous manifestations in HIV-infected children attending the paediatric HIV clinic of the Federal Medical Centre Umuahia.

Method: This is a cross-sectional study carried out among 120 children, aged 4 months to 15 years with the diagnosis of HIV infection. They were consecutively recruited and diagnosis of mucocutaneous lesion made after a complete dermatological examination. Laboratory investigations such as KOH Examination, Gram's stain, Wood's lamp and skin biopsy were done when necessary. Data analysis was done using IBM SPSS Software. Chi square test was used to compare the categorical variables and $p\text{-value} < 0.05$ was significant.

Result: The prevalence of mucocutaneous lesions among children with HIV infection was 55.8%. Of the 67 children with mucocutaneous lesions, 58(86.5%) had single lesion, while 9 (13.5%) had multiple lesions. Non-infective lesions were the most prevalent in 35 (52.2%) while 32 (47.8%) children had infective lesions. Pruritic Papular Eruption (PPE) was the most single common lesion noted in 24(35.8%) of the children with mucocutaneous manifestations.

Conclusion: Prevalence of mucocutaneous disorders was high in HIV infected children attending Paediatric HIV clinic of FMC Umuahia. A high index of suspicion for HIV infection in children presenting with mucocutaneous lesions such as pruritic papular eruptions is recommended.

Key Words: Human Immunodeficiency Virus, Mucocutaneous manifestation, Children

011

DER-86: Pattern and determinants of mucocutaneous disorders among HIV-infected children in Port Harcourt, Nigeria.

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Background: Mucocutaneous disorders (MCDs) are common in HIV-infected children and delays in identification and treatment can lead to deleterious consequences.

Objective: The aim of the study was to evaluate the pattern and determinants of MCDs among HIV-infected children receiving care at the University of Port Harcourt Teaching Hospital (UPTH) and Rivers State University Teaching Hospital (RSUTH).

Methods: It was a descriptive cross-sectional study carried out over a period of 6 months. The study subjects were 372 HIV-infected children aged 6 weeks to 18 years who were compared with 372 non-HIV-infected

children matched for age, sex and socioeconomic class. Diagnosis of MCDs were mainly clinical but microbiological and histopathological confirmation were obtained when necessary.

Results: The mean age of the HIV-infected subjects was 9.98 ± 4.60 years and the male to female ratio was 0.8:1. MCDs were significantly more prevalent in HIV-infected children (30.1%) compared to the non-HIV-infected group (11.0%). The three most common disorders in the HIV-infected group were Pruritic papular eruptions (9.1%), Verruca plana (5.1%) and Tinea capitis (4.6%). In the comparison group, the most common disorders were Scabies (4.8%), Impetigo (1.6%) and Atopic dermatitis (1.1%). Predictors of MCDs among HIV-infected children were low socioeconomic status, sub-optimal adherence to HAART, WHO clinical stages 3 or 4 and lack of viral suppression.

Conclusion: MCDs are significantly more prevalent in HIV-infected children in comparison to the non-HIV-infected. The presence of the identified predictors in a HIV-infected child warrants early evaluation for MCDs and treatment in order to limit morbidity and mortality.

Keywords: Mucocutaneous disorders, HIV-infected children, Port Harcourt.

012

DER-88: The emerging epidemic of triple action cream and skin lightening agent abuse in Nigerian children: A call to action.

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Background: Triple action creams contain a mixture of antibacterial, antifungal and anti-inflammatory (steroids) in one formulation. The most common active ingredients in skin lightening soaps and creams include hydroquinone, steroids, mercury and vitamin C.

Objective: The aim of this review article is to highlight the dangers associated with the abuse of triple action creams and skin lightening agents in children and proffer solutions to correct this trend.

Methods: Information was obtained through online and offline literature search and review.

Results: Triple action creams are often procured over the counter as treatment for various skin lesions. Some parents also mix these triple action creams or other skin lightening agents into their children's body lotions in a bid to achieve a fair complexion. This constitutes a form of child abuse and is further associated with deleterious health consequences.

Steroid containing creams may create dependence as they provide a transient relief which relapses on discontinuation. They could also worsen bacterial and fungal skin infections by depressing the skin's innate immunity. Prolonged use of creams containing super potent corticosteroids may also result in the development of striae, growth retardation and Cushing's syndrome. Furthermore, mercury-containing products have been reported to be nephrotoxic.

Conclusion/Recommendations: Abuse of triple action creams and skin lightening agents in Nigerian children is associated with adverse health outcomes. The role of the Paediatrician in controlling this menace include health education, careful selection of single agent topical medications based on suspected or confirmed aetiology as well as advocacy to strengthen regulations guiding the manufacture and sale of these agents

013

DER-163: Cutaneous myiasis in an infant: A case report

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Introduction: Myiasis is infestation of humans by the larva of the Dipterans. The infestation could be furuncular or migratory, wound or intracavitary. The furuncular myiasis is often misdiagnosed as cellulitis or impetigo.

Objective: We report a case of Tumbu fly myiasis seen in a 7 month old male living in Port Harcourt who was erroneously thought to have bullous impetigo.

Case Report: XX is a 7 month old male who presented to the Paediatric emergency room with complaints of rash all over his body of four days duration and low grade fever of a day duration. He had nodular umbilicated lesions on the neck, chest, abdomen, arms, and legs. A diagnosis of bullous impetigo was initially made. Full blood count revealed an elevated Erythrocyte Sedimentation Rate of 92mm/Hr. He was to be commenced of antibiotics but on further review on the same day by the Consultant Paediatrician, a diagnosis was of Tumbu fly myiasis was made. Petroleum jelly was applied to the surface of the lesions and creamy-white larva was seen to emanate from some of the lesions. Fifteen live larvae were gently expressed from the different lesions and the child made a full recovery in a few days.

This infant probably acquired the infestation when his clothes were contaminated with the faeces of Tumbu fly. Myiasis is a relatively benign condition but fatal cases where the larva burrows into the brain tissue has been reported.

Conclusion: The infestation may be prevented by drying clothes on lines placed directly under sunlight, ironing both sides of clothing, using insect repellent creams and keeping flies out of the house.^{4,8}

PAEDIATRIC ENDOCRINOLOGY

014

END-63: Clinical profile and management challenges of disorders of sex development in Africa: a systematic review

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Objectives: To review the published literature regarding disorders of sex development (DSD) in Africa which will highlight clinical characteristics, and challenges of

evaluation and treatment of DSD.

Method: We performed systematic review of articles published on DSD in Africa between January 2001 and December 2020.

Results: Eighteen studies involving 1980 patients from nine countries were analyzed. Overall mean age at presentation was 9.3 years (range 1 day–33 years) with 52.5 and 45.1% reared as females and males, respectively, prior to presentation. Following evaluation however, 64% were assigned female sex, 32.1% were assigned male sex, and 21.8% of the cases required sex reassignment. Only 7 (38.9%) of the publications reported medical treatment of DSD, 4 (22.2%) reported on psychosocial management and 5 (27.8%) documented multidisciplinary team management. Barring regional variations, the documented challenges of management include delayed presentation, loss to follow up, financial challenges, and lack of facilities for care of DSD. Comparison of the cases managed in the last decade (2011–2020) with those managed in the earlier decade (2001–2010) showed a trend towards earlier presentation and reduced rate of sex reassignment in the last decade. However, the challenges persisted.

Conclusion: Barring regional differences, a high proportion of DSD in Africa may have delayed presentation with inappropriate sex of rearing, inadequate evaluation and need for sex reassignment. Specific efforts to improve time to diagnosis, patient evaluation, improvement of healthcare funding, and collaboration with more developed countries may improve the care of patients with DSD in Africa.

Keywords: challenges; developing world; disorders of sex development; sex reassignment.

015

END-156: Prevalence of prediabetes and associated factors among adolescent secondary school students in Kano, northwest Nigeria.

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Background: Prediabetes is an important metabolic public health problem which is being given little or no attention especially among adolescents. Prediabetes increases the risk of developing type 2 diabetes mellitus (T2DM) and cardiovascular diseases.

Objectives: This study aimed to determine the prevalence of prediabetes and its associated factors among secondary school adolescents in Kano, northwest Nigeria.

Methods: This was a cross-sectional study of 650 secondary school students aged 10-19 years in Tarauni LGA of Kano state. Socio-demographic data and family history of diabetes were obtained from the participants. Fasting blood glucose (FBG) following an 8-hour overnight fast and oral glucose tolerance test (OGTT) were

done for all participants. Blood pressure and anthropometry were measured, and body mass index was calculated. The International Society of Paediatric and Adolescent Diabetes (ISPAD) criteria for definition of prediabetes (FBG of 5.6- 6.9mmol/L and OGTT glucose level of 7.8- 11.0 mmol/L) were used.

Results: There were 372 females and 278 males. Mean (SD) age was 14.9 (1.8) years. The prevalence of prediabetes was 5.5% (using FBG) and 8.9% (using OGTT). Male gender (AOR- 2.56, p-value- 0.010), positive family history of diabetes (AOR- 0.39, p-value- 0.017) and higher socioeconomic class (AOR-0.30, p-value- 0.011) were significantly associated with prediabetes. There was no association between prediabetes and blood pressure or BMI.

Conclusion: Prediabetes is common among adolescents in Kano. Screening of high risk adolescents within the school health program may help in early detection and appropriate management.

PAEDIATRIC GASTROENTEROLOGY AND NUTRITION

016

GAS-111: Rural -Urban Distribution of Overweight and Obesity in Schooling Adolescents in Oyo State.

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Background: Obesity and overweight are growing public health concerns in developing countries. However, there are few reports on this trend in Oyo State.

Objective: This study was carried out to determine the prevalence of overweight and obesity among adolescents in rural and urban areas.

Methods: 1141 students between the ages of 10 and 19 were recruited from randomly selected secondary schools in Ibadan (urban = 684) and Igbo-Ora (rural = 457). Weight and height were measured, with Body Mass Indices (BMI) and z-scores calculated and classified as thinness, normal weight, overweight, and obese using the CDC's recommendations. BMI categories were compared between rural and urban areas.

Results: In the urban area, the prevalence of thinness, overweight, and obesity was 6.4%, 13.0%, and 3.1%, respectively, compared to 22.1%, 2.0%, and 0.4% in the rural area (p<0.001). Thinness, overweight and obesity were significantly more prevalent in females (8.2%, 15.0%, and 4.7%, respectively) than males (3.9%, 10.3% and 0.7%, respectively) in the urban area (p<0.001) but no such difference was observed in the rural areas. In the urban area, there was a significant relationship between social class and the distribution of BMI categories, but not in the rural area. In urban areas, 48.3% and 52.4% of the 89 overweight and 21 obese adolescents were from families in social class I, respectively.

Conclusion: Obesity and overweight were more prevalent in urban than rural areas. As urbanisation in Oyo State progresses, the wellbeing of rural adolescents needs more attention.

Key Words: BMI, schools, adolescents

017

GAS-142: Predictors and Outcome of in-patient management of Severe Acute Malnutrition of Hospitalised Children in a Tertiary Facility in Southern Nigeria

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Background: Severe acute malnutrition (SAM) remains a public health concern in developing countries. Children with SAM are nine times more likely to die than well-nourished children. This study evaluated predictors and outcome of hospitalised children with SAM in southern Nigeria.

Methods: Children with SAM admitted into the Paediatric ward of the University of Calabar Teaching Hospital between September 2017 and November 2019 were studied. Multivariable logistic regression was used to identify factors that independently predicted the management outcome and p-value < 0.05 was considered significant.

Results: One hundred children were studied. Mean age was 14.28 ± 14.04 months with a median of 11.0 and IQR of 11.0 months. Approximately, 89% of the study population were less than two years of age. Oedematous SAM was seen in 18.5% and non-oedematous SAM in 81.5%. Co-morbidities included tuberculosis (13.0%), HIV (12.0%), and HIV/TB co-infection (3.0%). Associated clinical features were fever (21.7%), anaemia (19.9%), diarrhoea (19.1%), skin changes (8.7%) and shock (1.8%). Mean duration of hospital stay was 11.48 ± 6.87 days. About 92.3% were discharged and 7.7% died. After multivariable regression, predictors of mortality were shock (p=0.037, aOR 17.51, 95% CI: 1.19–258.77) and skin changes (p=0.035, aOR 9.81, 95% CI: 1,18–81.46).

Conclusion: Presence of shock and skin changes were independently associated with mortality in children with SAM. Prompt referral of children with complicated SAM is hereby advocated to reduce mortality, particularly those with skin changes and shock.

018

GAS-157: Knowledge, Attitude and Acceptability of Donor Human Milk among mothers in South-South Nigeria.

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Background: The best nutrition for every newborn is human milk, specifically the mother's milk. In its absence, the second-best option is donated human milk. Hence, it's recommendation by the World Health Organisation as being superior to artificial formula in situations where a mother's milk is unavailable or insufficient. However, this recommendation is still far from being implemented since the use of donor human milk is not yet widely accepted.

Objective: The aim of this study was to assess the awareness, attitude and acceptability of donor human milk among mothers.

Method: This cross-sectional study enrolled 208 mothers attending outpatient clinics at the University of Port-Harcourt Teaching Hospital. A researcher-administered questionnaire was used to assess their awareness and acceptability. Acceptability was assessed by their willingness to donate breast milk or accept donor breast milk if they couldn't produce theirs.

Results: Out of the 208 participants, only 19% (39) were aware of breast milk banks, but 55.8% of these were not sure where the milk came from. Although, 21.2% were willing to donate their breast milk, only 11% would accept donor human milk for their baby. Among the 94.7% who would not accept donor milk, 69.5% preferred the use of formula, 13.2% were afraid of their babies contracting a disease, while 3.6% declined on religious grounds.

Conclusion: The knowledge and acceptability of donor human milk is very poor among mothers in Port Harcourt. There is need to create more awareness on the benefits of human breast milk banking.

019

GAS-176: Adolescent Obesity: An emerging public health crisis in an urban city in south-south Nigeria

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Background: In Nigeria, a prevalence of obesity of 4.2% has been reported among adolescents in a study in South-West Nigeria. Studies on the prevalence of obesity among adolescents have yielded different prevalence rates in different parts of the country.

Objective: The present study was planned to determine the prevalence of obesity amongst apparently healthy adolescents aged 10-18 years in secondary schools in Uyo, as well as determine associated predisposing fac-

tors to obesity.

Method: This was a cross-sectional school-based study of 1,701 adolescents selected by multi-stage sampling technique, carried out between December 2016 to February 2018. It involved measurement of weight, height and waist circumference of the study subjects, as well as administration of pretested questionnaires. Body Mass Index (BMI), Waist Circumference (WC) percentile and waist to height ratio of the subjects were determined. Data was analysed using SPSS version 20. Prevalence of obesity was determined and Chi Square was used to determine the relationship between qualitative variables. General obesity was defined as a BMI 95th percentile, while central obesity was defined as WtHR 0.5 or waist circumference 90th percentile for age and sex.

Results: Prevalence of general obesity was 5.6% while the prevalence of central obesity was 11.2% using WC percentile and 9% using WHtR. This study also revealed higher prevalence of obesity in females, adolescents from monogamous homes, as well as those whose parents are from the upper socio-class.

Conclusion: It is recommended that routine measurement of the indices of adiposity and public health enlightenment measures aimed at reducing the burden of obesity among adolescents should be routinely done in our secondary schools

020

GAS-192: Hepatobiliary findings in Nigerian children with sickle cell anaemia.

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Background: Hepatobiliary abnormalities occur commonly in sickle cell anaemia and these have been extensively reported in the adult patients. However, complications have been sparsely reported in children especially in the sub-Saharan African continent.

Objectives: This study aims to highlight the hepatobiliary complications in these group of children using clinical examination, laboratory testing and abdominal ultrasonography. The challenges in a resource-limited country are also highlighted.

Methods: One hundred and thirty- four (134) children aged 1-18years with sickle cell anaemia were recruited into this cross-sectional study. Clinical history and physical examination obtained were documented. Relevant basic haematologic and biochemical indices (Full

blood count, liver enzymes and viral markers for hepatitis B and C) and abdominal ultrasonographic parameters were documented for all the children. The relationship between the complications and possible risk factors (age, frequency of crisis and blood transfusions) were also documented.

Result: Fifty-three (39.6%) of the children had hepatobiliary abnormalities. Chronic hepatitis B infection was the most prevalent complication (14.9%) seen followed by cholelithiasis (12.7%) and Hepatitis C infection (4.5%). Other complications identified were cholecystitis (3.0%), biliary sludge (1.5%), liver cirrhosis (0.7%). Age was significantly associated with viral hepatitis (p=0.003) and cholelithiasis (p=0.0007) and the conditions were more prevalent in the older age group. The hepatobiliary complications were also more prevalent in the males. Frequent blood transfusions was significantly related to viral hepatitis (p=0.03). The use of hydroxy-urea was not significantly related to any, of the complications

Conclusion: Hepatobiliary abnormalities are prevalent in children with sickle cell anaemia. Clinical screening and the use of ultrasonography would aid early diagnosis and appropriate therapeutic intervention in this group of children.

021

GAS-220: Time of initiation of home management for diarrhea among hospitalized under-fives

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Background: Diarrhea is a preventable cause of childhood morbidity and mortality globally. Prompt home management of diarrhea (HMD) by caregivers is an important determinant of outcome of the disease.

Objective: To determine the promptness in the institution of HMD among caregivers of under-fives hospitalized for diarrhea disease

Method: The study was conducted among caregivers of under-fives admitted in the Children's Emergency Unit of the University of Uyo Teaching Hospital. Information on the biodata, socio-demographic characteristics, diarrheal illness and HMD of the children were obtained. HMD was considered prompt if initiated within 24 hours of the onset of illness. Data analysis was by simple descriptive statistics. Chi square was used to test for association between duration of illness and initiation of HMD. It was deemed to be statistically significant if p-value was < 0.05.

Results: Of the 100 caregivers of under-fives hospitalized on account of diarrheal disease, 59 (59%) instituted home-based management prior to hospitalization as against 41 caregivers (41%) that did not. Among the 59 caregivers that instituted HMD, 14 caregivers (23.7%) initiated it promptly while 45 caregivers (72.3%) initiated it lately. The association between duration of diarrheal illness (1 day versus > 1 day) and initiation of home-based management was not statistically signifi-

cant ($\chi^2 = 1.4737$; $p = 0.225$).

Conclusion: Prompt initiation of HMD among hospitalized under-fives was observed in about a quarter of the caregivers. It is necessary to develop strategies for promoting prompt initiation of HMD among caregivers of under-fives in the country.

022

GAS-222: Nutritional status of under-five children with moderate acute malnutrition 12 months post-supplementary feeding and dietary counselling programme

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Background: Supplementary feeding with dietary counselling is the current strategy for managing under-fives with moderate acute malnutrition (MAM). Data on their nutritional status 12 months post intervention are limited.

Objective: To determine the nutritional status of under-fives with MAM by 12 months post-supplementary feeding and dietary counselling.

Method: Supplementary feeding with dietary counselling programme was conducted in Akwa Ibom State among eligible under-fives with MAM. They received supplementary diets in addition to their regular family diet for four months and were followed up for 12 months. Their nutritional statuses were determined at the immediate and 12 months post intervention period. Chi square was used to test for association between supplementary feeding and their nutritional status. It was deemed significant if $p < 0.05$.

Results: A total of 158 children were evaluated at the immediate post-supplementary feeding period. Of this number, 116 (73.4%) recovered, 38 (24.1%) did not while 4 (2.5%) deteriorated to severe acute malnutrition (SAM). There were 134 evaluable children by 12 months post supplementary feeding; 80 (59.7%) recovered, 31 (23.1%) did not while 23 (17.2%) deteriorated to SAM. The association between post supplementary feeding programme and deterioration in the nutritional status by 12 months when compared to the immediate post supplementary status was statistically significant ($\chi^2 = 6.1602$; $p = 0.013$).

Conclusion: Supplementary feeding and dietary counselling programme over four months in under-fives with MAM resulted in an improvement in their nutritional status while its discontinuation was associated with a significant deterioration by 12 months post intervention.

PAEDIATRIC HAEMATOLOGY AND ONCOLOGY

023

HAE-4: Red cell folate levels in children with sickle cell anaemia in steady state and crises at the University of Nigeria teaching hospital, Enugu.

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Background: Folate supplementation is an integral aspect of the management of children with sickle cell anaemia (SCA) especially in Africa. In spite of this, there have been concerns about lower folate levels, especially during crisis.

Objective: To determine red cell folate levels of children with sickle cell anaemia in steady state and during crisis and compare with those with haemoglobin AA genotype.

Method: This study was hospital based, comparative, and longitudinal. Fifty children with sickle cell anaemia were recruited during crises and followed up until they met the criteria for attaining steady state. The controls were matched with the subjects for age and gender and had haemoglobin AA genotype. Red cell folate estimation was done with the Electrochemiluminescence Immunoassay (ECLIA) method using the automated Roche Cobas e411 equipment.

Results: The mean red cell folate level in children during sickle cell crisis was 281.33 ± 125.12 ng/ml, which was significantly lower than the mean of 402.22 ± 128.08 ng/ml obtained during steady state ($t = 5.870$, $p < 0.001$). Mean level of red cell folate was lower during anaemic crisis compared to vaso-occlusive crisis, though not significantly so ($t = 1.074$, $p = 0.288$). The mean red cell folate level of controls was significantly lower than that of the steady state subjects ($t = 2.041$, $p = 0.044$).

Conclusion: The dose of folate should be increased during crisis.

Keywords: Red cell folate, sickle cell anaemia, steady state, crises, Enugu.

024

HAE-19: Disability adjusted life years (DALYS) lost to childhood anaemia in Nigeria

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Background: A better representation of the burden of childhood anaemia should rely on both morbidity and mortality and not only mortality. In this study, burden of childhood anaemia was estimated, using disability-adjusted-life-years (DALYs), factoring in grades of anaemia, and their aetiological agents.

Methods: The study was a retrospective involving review of patients' medical records and review of available literature. Information collected were: grade of anaemia and the associated aetiological factors, location of the subject and case-fatality obtained from previous publications. The DALYs were estimated by adding together the years lost to disability (YLDs) and years lost to life (YLLs) to anaemia. DALYs were disaggregated by aetiological agents of anaemia and grades of anaemia.

Results: A overall prevalence of anaemia among children was 42.2%, and this prevalence was dis-aggregated into 38% and 47.8% in the urban and rural areas. Among these children with anaemia, those with mild, moderate and severe in the urban and rural were 70.2% vs 58.9%, 25.4% vs 39.6% and 4.45 vs 1.9% respectively. Malaria (48.3%) and Iron deficiency (42.3%) were the main cause of anaemia. The overall across all aetiological agents YLLs, YLDs and DALYs for mild, moderate and severe anaemia were 1.78 life per 1000 population, 3.34 lives per 1000 population and 32.28 lives per 1000 population respectively. The National DALYs from childhood anaemia was 6 million which is 0.58% of the global DALYs due to anaemia for all age group.

Conclusion: The DALYs due to childhood anaemia was high and vary much across the clinical grades but not across the aetiological agents. This imperatively necessitates the de-emphasis on controlling the causative agents but emphases should be on early detection of anaemia at the community level, considering that irrespective of the grade of anaemia, that the child has suffered some level of disability.

Key words: Anaemia; Burden; Children; Disability Adjusted Life Years.

025

HAE- 69: Low Self -Esteem in an Adolescent Cancer Survivor- A Case Report

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Background: Delayed puberty is defined clinically as the absence of the first signs of physical and hormonal signs of pubertal development beyond the normal range for the population; implying the absence of breast development by age 12 years in girls, or absence of testicular enlargement by age 14 years in boys. The causes include chronic medical conditions, hormonal disorders, genetic disorders, radiation therapy and chemotherapy. Different psychological effects occur in delayed puberty and include depression, oppositional behaviour, victims of bullying, low self-esteem, poor school performance, reduced peer contact, immature goals for age, and general social immaturity.

Case: 14-year-old girl, diagnosed with right nephroblastoma at age 4 years. She had tumour excision, chemotherapy and external beam radiation. She defaulted from follow up for about 10 years, then presented with delayed puberty. The review by paediatric endocrinologist revealed premature ovarian insufficiency. The adolescent paediatrician saw because of low self-esteem; she is bullied at school due to lack of development of secondary sexual characteristics. She is on follow up in both clinics; for induction of puberty with Oestrogen.

Conclusion: Delayed puberty may affect psychosocial functioning and educational achievement. Paediatricians need to be aware of this complication arising in children with chronic illnesses and institute measures to combat this.

Key words: Delayed puberty, cancer survivor, adolescent bullying.

026

HAE-81: Recurrent atypical presentations in a child with haemophilia a at FMC Abeokuta, South-West Nigeria

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Background: Hemophilia A typically manifests with bleeds into soft tissues or joints. Less commonly bleeds may occur at intracranial, iliopsoas, oropharyngeal or peno-scrotal sites. These uncommon bleeding sites, necessitate a high index of suspicion for prompt diagnosis, in order to prevent potential life-threatening complications.

Objective: We report a known Haemophilia A patient who presented with spontaneous penile and submental hematomas respectively, to highlight these unusual manifestations of this disorder

Case presentation: AO is a 12-year-old haemophilia A patient who presented with a 12hour history of progres-

sive jaw swelling, as well as difficulty swallowing and opening the mouth. There was no preceding trauma or dental procedure. Examination revealed a firm submental swelling extending to the anterior neck. Available FVIII concentrates were administered, following which he was referred to the National Haemophilia Foundation treatment Centre at LUTH for easy access to factor concentrates, on account of progressive worsening of symptoms, and the attendant risk of respiratory compromise. Five months earlier he had presented with a spontaneous penile shaft hematoma which had also resolved with administration of FVIII concentrates.

His first contact with us at our facility was at 20th day of life following referral on account of prolonged bleeding from circumcision site. Coagulation screening at the time revealed an isolated prolongation of PTTK. The diagnosis of hemophilia A was confirmed at 2 years with FVIII level <1%. Although rare, oropharyngeal and penile bleeding are documented complications in patients with haemophilia. These bleeds typically arise following an acute neck injury induced by either by trauma, dental or oral surgical procedures. Spontaneous hemorrhages at these sites, like they occurred in our patient, are extremely rare.

Conclusion: Oropharyngeal and penile haematomas are rare manifestations of haemophilia A. A high index of suspicion for atypical bleeds is particularly important in resource poor countries in which clotting factor concentrates and safe blood products are not readily available. Prompt diagnosis and referral for appropriate treatment of these unusual bleeds is therefore crucial to prevent associated potentially life-threatening outcomes.

027

HAE-117: Pattern of adolescent malignancies in a tertiary hospital in South-South, Nigeria.

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Background: Adolescence is the period of physical and emotional development from childhood to adulthood. It entails a lot of struggle with self, with the adolescent trying to develop independence, self-awareness and the development of their own identity. The diagnosis of cancer can interfere with this experience and make the adolescent period difficult and frustrating. In childhood, the incidence of malignancy peaks in the first year of life and declines till about 5-9 years of age and then begins to rise again in the adolescence period. In adolescents, sarcomas of the bone and soft tissue, tumours of the male and female genital tract are more predominant. There are few studies on malignancies in the adolescence period in developing countries. This may be due to various factors such as the absence of cancer registers. Cancer also, remains a low public health priority in developing countries because of other pressing health problems like malaria, tuberculosis, and acquired immunodeficiency syndrome/ human immunodeficiency virus infection.

Objectives: This study explored the pattern of malignancies seen in the adolescent period and their outcome.

Methods: A 5 year retrospective study from January 2015 to December 2020 was performed at the department of Paediatrics, in the University of Port Harcourt Teaching Hospital. Data on all malignancies diagnosed between the ages of 10-18 years were retrieved from the folders. Collected data consisted of patient's demographics, clinical diagnosis, treatment and outcome.

Results: 18 adolescents (16 males, 2 females), were seen with age range between 15- 17 years. Most of the study population (60%) were of low socioeconomic class. Middle and high social-economy class were both 20%. Fourteen (77%) of the study population had delayed hospital presentation. A high percentage (88%) already had symptoms and signs of metastasis at first presentation. The most common cancer seen were leukaemias (33.3%) and rhabdomyosarcoma (27.7%). Other types of cancers seen includes: osteosarcoma, germ cell tumour, hepatoma, neuroblastoma, nasopharyngeal carcinoma and malignant sarcoma. 50% of the adolescents died from cancer, 27.7% of the patients were lost to follow up, 16.7% are still on treatment, while, 5.6% is presently cancer free and on follow-up

Conclusion: In this study, leukaemias and rhabdomyosarcoma were the most predominant cancers seen in the adolescents. Cancer survival was poor due to late presentation.

Keywords: Adolescents, Malignancy

028

HAE-165: Clinical profile and middle cerebral artery velocity of children with sickle cell anaemia seen in University of Uyo Teaching Hospital, Uyo, Akwa Ibom State.

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Background: Stroke is a major complication of sickle cell disease and sickle cell anaemia is the most common cause of childhood stroke. Transcranial Doppler (TCD) ultrasonography is a cheap, repeatable and non-invasive imaging modality used in assessment of major cerebral arteries. Abnormally increased velocities in these arteries can be a pointer to a high risk of the development of stroke in children with SCA which is preventable by prophylactic blood transfusions and use of hydroxyurea.

Objectives: To determine the difference in blood flow velocity parameters in middle cerebral artery of children with sickle cell anaemia compared to normal age and gender matched population.

Methods: This was a hospital based comparative cross-sectional study among 40 sickle cell anaemia (SCA) patients in steady state aged 3-16 years attending sickle cell clinic at the University of Uyo Teaching Hospital and 40 age and sex matched non-sickle cell anaemia

patients. Sociodemographic data, medical and transfusion history were retrieved using structured, interviewer administered questionnaire. The time-averaged mean of maximum velocity (TAMMV) of the right and left middle cerebral arteries were measured.

Results: The mean age \pm SD of SCA patients' age was 9.1 ± 4.4 years. Each group consisted of 23 (57.5%) males and 17 (42.5%) females being age and sex matched. The mean \pm SD haemoglobin (Hb) of the SCA was significantly lower than that of the controls 7.1 ± 1.1 g/dl and 11.1 ± 1.4 g/dl respectively ($p < 0.001$). The mean flow velocity of right middle cerebral artery of the patients with SCA was significantly higher compared to the controls (94.1 ± 23.1 vs 55.0 ± 8.8 cm/sec, $p < 0.001$). There was a moderate negative correlation in the SCA group between the measured TAMMV of the right MCA and the haemoglobin concentration ($r = -0.490$, $p = 0.002$).

Conclusion: The mean TAMMV recorded in the SCA subjects were significantly higher than that of the non-sicklers.

029

HAE-223: Clinical profile of Acute chest syndrome in children with sickle cell Anaemia in a tertiary hospital in Southern Nigeria.

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Background: Acute chest syndrome (ACS) is a common respiratory complication in children with sickle cell anaemia (SCA). The diagnosis of ACS in SCA is challenging due to the similarities in clinical manifestation with pneumonia. The development of ACS prolongs the duration of admission and can progress to respiratory failure.

Objectives: To determine the clinical profile of SCA patients admitted for ACS in the Paediatric Department of the University of Uyo Teaching hospital (UUTH).

Methods: This was a seven-year (2014-2020) retrospective cross-sectional study. Data was obtained from case notes of children admitted and treated for ACS in the department of Paediatrics, UUTH. All patient identifiers were omitted. Data was analysed using SPSS.

Results: Of a total of 4609 paediatric admissions, 268 (5.8%) were SCA patients. A total of 24(8.95%) SCA patients had ACS. There was a male (83%) preponderance. The peak age incidence was in the 12-17 years age group (37%). The Common symptoms were Fever (100%), cough (100%), chest pain (90%) and difficulty in breathing (87%). Hypoxemia (92%) was a common sign. Twenty (83%) of the children had at least one previous episode of acute VOC. The Chest radiograph was suggestive of ACS in 16 (67%) cases. The mean duration of admission was eight days and there was no mortality among the patients seen.

Conclusion: ACS in children with SCA may present as mild respiratory illness or in acute respiratory failure,

therefore prompt diagnosis and treatment is required to prevent mortality and prolonged morbidity.

PAEDIATRIC INFECTIOUS DISEASE

030

INF-25: The burden of severe malaria in the emergency unit of Paediatric department, Federal Medical Center Asaba

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Background: Malaria is an infectious disease caused by the protozoan *Plasmodium*, endemic in tropical and subtropical countries. Severe malaria typically occurs due to delayed treatment of uncomplicated malaria and 1.7 % of all cases of malaria has at least one symptom of severe malaria. There is need to document the burden and patterns of severe malaria in our center with a view of improving the quality of care offered and reduce the case fatality rate.

Methods: It was a retrospective study, involving all the children diagnosed with severe malaria, admitted into the children's emergency room, from June 2020 to May 2021. The data collected included the total number of admissions within the period, the month of admission, age, gender, the component of severe malaria that was the final diagnosis and outcome of management. Data were analyzed using GraphPad Prism version.

Results: There were 507 admissions within the study period: males were 55.2% and children 1-<60 months were 58.0% The prevalence of severe malaria was 6.9% (35/507) with cerebral malaria accounting for 60.0% (21/35) and severe malarial anaemia 28.6% (10/507). Severe malarial anaemia was commoner in males, $p=0.002$. Majority (62.9%, 22/35) of the cases of severe malaria occurred in children 5 – <18 years. Case fatality rate was 2.9% (1/35).

Conclusions: The prevalence of severe malaria was 6.9%. Cerebral malaria and severe malaria anaemia were the two commonest modes of presentation and severe malarial anaemia showed male preponderance.

031

INF-36: Congenital Rubella Syndrome and its pro- tean manifestation: A case series from National Hospital, Abuja

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Background: Congenital Rubella Syndrome (CRS) arises from intrauterine infections with the Rubella virus in pregnancy especially the first trimester. It affects various systems resulting in disastrous outcomes. Nigeria

commenced surveillance in 2019, however, reporting is poor and worsened further by the COVID-19 pandemic which diverted attention. Immunization is available but not subsidized.

Objective: To raise awareness on this immunizable, and deleterious disease.

Case Presentation: Case 1 presented at nine months on account of bilateral cataracts and suspected congenital heart disease. She had multi-disciplinary management for CRS and defaulted for seven years, re-presented terminally with severe aortic regurgitation and stenosis, in florid heart failure.

Case 2 was a four-year-old female with delayed developmental milestone, congenital deafness, cataract, salt and pepper retinopathy and positive Rubella IgG.

Case 3 was a term female neonate, admitted at twenty minutes of life with cyanosis, cardiorespiratory arrest, corneal opacities. She had Patent Ductus Arteriosus, mild pulmonary hypertension and trivial pericardial effusion. Maternal and baby serology were positive for Rubella (IgG).

Case 4 was a 4-month-old female who was managed for sepsis and heart failure. She had right eye cataract, microphthalmia and pulmonary stenosis.

Conclusion: CRS is a vaccine-preventable disease with deleterious effect on the child which poses financial, social and emotional impact on affected families. There is need for strengthening of Nigeria's surveillance and immunization

Keywords: Congenital rubella syndrome, surveillance, immunization

032

INF-79: Fully immunised for age project (FIFAP): challenges affecting a hospital based intervention for missed opportunities for vaccination in Nigeria

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Background: The follow up of missed opportunities for vaccination (MOV) cases that visit our health facilities on the non-immunisation days are not without challenges.

Objective: To describe the challenges faced during the follow up of MOV cases among under-fives at the Federal Medical Centre Umuahia.

Methods: Exit interviews were conducted for mother/child pairs of under-five children consecutively as they exited the preventive and the curative sections of the hospital from January 2019 to December 2020. The MOV cases identified were followed up via GSM till they were fully immunised for age.

Results: One thousand and eight MOV cases were identified and followed up over the period. Five hundred and

forty-five were males while 463 were females, with a M:F ratio of 1.2:1. As at the time of this report, 708 (70.2%) had completed their NPI scheduled vaccines. The first 200 (20%) to complete their vaccinations according to the NPI schedule were rewarded with N500 recharge card or its monetary equivalent. Seventy six (7.5%) could not be accessed, while 224 (22%) were yet to complete the 2nd dose of Measles vaccine.

The barriers that affected this intervention include: No available phone contacts in 29 (2.9%), inaccessible phone numbers 37(3.7%), and ten mortalities (0.9%) as at the time of this report. The other social barriers that affected access to vaccination as at when due were; the global covid19 lockdown and the frequent compulsory sit-at-home demonstrations in south eastern Nigeria.

Conclusion/Recommendation: Barriers exist that hinder the follow up of MOV cases. Hence, all the vaccines should be made available every day to every eligible child that visits our health facilities in order to effectively eliminate MOV.

Keywords: FIFAP, MOV, Umuahia.

033

INF-82: Meningococemia with COVID-19 Co-infection in a resource poor setting

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Background: Meningococemia is a disseminated infection with high morbidity and mortality. Novel coronavirus disease (COVID-19) caused by severe acute respiratory syndrome coronavirus 2(SARS-CoV-2) infection has been ravaging the world, Nigeria inclusive since December 2019.

Case Report: An eleven year old boy admitted with fever, headache, vomiting, generalized body pains, restlessness and passage of dark brown urine. He presented in shock and there was global hypertonia and tenderness in the limbs. He was resuscitated and management commenced.

Four days into admission, progressively spreading fulminant rashes were noticed on the skin characterized by generalized purpura with hyperpigmented patches and plaques on the trunk, lower limbs and gluteal region with gangrenous distal right second toe. There was however no neurovascular deficit.

Complete blood count showed leukocytosis, left shift of neutrophils and thrombocytopenia. Cerebrospinal fluid (CSF) analysis showed elevation of CSF protein. Blood culture yielded *Neisseria meningitidis* sensitive to cef-

tazidime. Clotting profile showed prolonged Prothrombin time (PT) and Partial thromboplastin time with kaolin (PPTK) and the COVID-19 test was positive. Patient was managed as a case of meningococemia with COVID-19 infection.

He had intravenous antibiotics, appropriate intravenous fluids with electrolyte correction, immune boosters, wound dressing and debridement of necrotic skin.

He was discharged home after 26 days on admission and was followed up in the outpatient clinic.

Conclusion: Bacterial co-infection with COVID-19 is well recognized and has been associated with poor outcome. Hence, we report this case that was successfully managed with the collaborative efforts of many experts.

Key words: Meningococemia, COVID-19

034

INF-99: Hepatitis C viral load in children with chronic Hepatitis C infection in Federal Teaching hospital Gombe, North East Nigeria

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Background: An estimated 3.6 million patients are infected with HCV in Nigeria. In Gombe state 3.7% is infected with HCV. As treatment keeps evolving, and despite limited access and affordability of diagnostics and antiviral, RNA quantification is emerging as the cornerstone for treatment decision.

Methods: First viral load (VL) of children 0-18 years diagnosed with chronic Hepatitis C between 2016 and 2019 in Federal teaching hospital Gombe were determined using COBAS CAP/CTM 96. VLT started in our facility in 2016

Results: Of the 765 children screened for Hepatitis C, 3.7% (28/765) were reactive. 71.4% (20/28) had VL test. Of the 733 VL test for Hepatitis C performed on children and adults in the study period, 20 children had VL determined constituting 2.7% (20/733). Amongst children with Hep C VL, 70% (14/20) were 10-18yrs, 6/20(30%) between 1-9 years; 65% (13/20) were males and 35% 7/20 females. The VL ranged from undetectable to peak of 13million copies/ml in two 6-9 year old males. VL was undetectable in 25 % (5/20), 3 females and 2 males. 15 % (3/20) had VL of 20-2000cp/ml (2 females and one male); 10 % (2/20) VL of 2000-5000cp/ml (two males); 5 % (1/20) VL of 5000-10000cp/ml). 45 % (9/20) had VL of >10000cp/ml (7males and 2 females. VL was higher in male than female children (p=0.48). Among children 1-9yrs old and 10-18yrs old, 60 % (3/5) and 40 % (6/15) respectively

had VL >10000cp/ml (p=0.33

Conclusion: First Viral load in children with HCV is high.

035

INF-113: Soil-transmitted helminthiasis: A neglected tropical disease among urban slum dwelling school-aged children of a sub-Saharan African city

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Background: The need to generate a robust epidemiological data on the neglected tropical diseases is imperative, in order to encourage access to formal care, drive public policies and ensure the allocation of resources by policy-makers.

Objectives: The objective of this study was to determine the prevalence of soil-transmitted helminthiasis (STH) and its association with nutritional variables among primary school pupils living in urban slums in a South-Eastern sub-Saharan African city of Enugu, Nigeria.

Methods: The stool samples of school-aged children living in urban slums were analyzed for ova of the helminths using the Kato-Katz methods, whereas the nutritional assessment (weight and height) was obtained and analyzed to indicate acute or chronic malnutrition. Degrees of helminthic load were then classified. The socioeconomic status was determined while the prevalence of STH and the relationship between it and the nutritional status was assessed to ascertain any significance between being malnourished and having STH as this will inform policy decisions.

Results: There were a total of 371 analyzed stool samples from 228 females (61.5%) and 143 males (38.5%), with 285 (76.8%) from the lowest socioeconomic class. The prevalence of STH was 18.1%, while that of acute and chronic malnutrition were 3.3% and 7.5%, respectively. The intensity of infestation was, however, light, with the highest mean egg intensity of 74.4 ± 32.8 documented for ascariasis. There was no statistically significant association between the presence of STH and various indices of acute and chronic malnutrition ($P > 0.05$).

Conclusion: STHs prevalence is high among children living in urban slums. Nutritional status was, however, not adversely affected by helminthic infestation.

036

INF-122: Diphtheria Outbreak during COVID-19 Pandemic in Katsina, North-western Nigeria: Epidemiological Characteristics and Predictors of death.

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Background: The impact of coronavirus disease 2019 (COVID-19) pandemic on vaccine preventable diseases, including diphtheria, may hamper the previous gains made in the eradication of the disease. We report the epidemiological profile, clinical features, laboratory findings, and hospitalization outcomes amongst cases of diphtheria managed at a Federal Medical Centre, Katsina, Nigeria during the first wave of COVID-19 pandemic.

Methods: This was a retrospective review of cases of diphtheria managed between July and December 2020. We extracted the clinical (socio-demographics, clinical features, and hospitalization outcomes) and laboratory findings (full blood counts, electrolytes, urea and creatinine) from the record of the children. Using SPSS, we carried-out descriptive analysis and applied binary logistic regression to determine factors associated with death. Level of statistical significance was set at $p < 0.05$.

Results: A total of 35 cases of diphtheria were admitted and managed from 1st July to December 31st 2020. The mean age of the children was 7.6 ± 3.1 years. Males were 15 (42.9%). There were 24 deaths (case fatality of 68.6%). Clinical findings were comparable between survivors and non-survivors except the bull neck, which was more common among nonsurvivors ($p=0.022$). The median duration of hospitalization was shorter in those that died ($p=0.001$). The age, sex, immunization status, leucocytosis, and biochemical features of renal impairments were not predictive of deaths. Presence of bull neck was predictive of death (adjusted odds ratio 2.115, 95% CI 1.270, 3.521).

Conclusions: The study shows a high of cases of diphtheria over a short period of six months with high mortality. Amongst the clinical and laboratory variables, only presence of bull neck was predictive of death

037

INF-131: Seroprevalence and predictors of hepatitis a virus infection in children aged 12-59 months with diarrhoea attending Federal Medical Centre Owerri.

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Background: Hepatitis A virus infection and diarrhoea

are prevalent in developing countries and have been a major contributor to childhood morbidity and mortality. The largest disease burdens are seen in developing countries and poor resource countries like ours where sanitation is still a major public health problem. In Nigeria there is paucity of data on the seroprevalence of Hepatitis A Virus infection in children with diarrhoea and this work is geared to report this data.

Methods: This hospital-based case control study was carried out between June and October 2018 at the Children Outpatient Clinic, Emergency Paediatric Unit and Ward 12 of Federal Medical Centre Owerri, Imo state South East Nigeria. Subjects were consecutively recruited and their age and sex matched control were consecutively recruited. A total of 160 participants were recruited aged 12-59months. Blood samples were analysed for anti HAV total antibody (IgM and IgG) using ELISA. Chi-square and Fischer's exact were used to test for significance and a value of $P < 0.05$ was considered significant. A binary logistic regression model was used to identify factors that independently predicted the occurrence of anti HAV total antibody.

Result: Among children with diarrhoea 16 tested positive to anti HAV total antibody giving a prevalence of 20% and a prevalence of 10% in children without diarrhoea. After binary logistic regression predictors of HAV infection in all participants were low socio-economic status and lack of hand washing before preparing food.

Conclusion: Therefore, it is concluded that any measure put in place to reduce diarrhoea will invariably reduce the prevalence of HAV infection. It is recommended that there is need for health education campaign.

Keywords: Hepatitis A Virus, socio economic status, diarrhoea, children, predictors

038

INF-152: Prevalence of asymptomatic malaria parasitaemia and anaemia in school aged children in Adiabo community, Cross River State

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Background: Asymptomatic malaria parasitaemia and anaemia are common among school age children living in high malaria transmission area. This study aimed at determining the prevalence of asymptomatic malaria parasitaemia infection and anaemia in school-aged children in Adiabo community in Cross Rivers State.

Methods: This was a cross-sectional study of 270 apparently healthy school aged children. Subjects were selected by multi-staged sampling method from the two primary schools and one secondary school in the community. A structured questionnaire was used to obtain information on the socio-demographic characteristics and common symptoms of malaria in the subject. Clinical examination was done to document common signs of

malaria and anaemia. Blood sample was collected from each subject to perform thick blood film smear for malaria parasite and drawn into heparinized capillary tube for haematocrit determination. p -value of 0.05 was considered significant.

Result: The prevalence rates of asymptomatic malaria infection and anaemia were 20.0% and 19.6% respectively. Asymptomatic parasitaemia was not significant by gender and age distribution but anaemia was significantly higher in the younger age group (5-9 years) than the older age group (10-15years) $p < 0.001$. The difference in the social class characteristic was not significant for asymptomatic malaria and anaemia.

Conclusion: Prevalence of asymptomatic malaria infection and anaemia in this study was high. It is therefore recommended that there should be periodic screening for asymptomatic malaria and anaemia amongst school aged children and infected children should be treated.

NEONATOLOGY

039

NEO-59: Risk factors for preterm delivery in a tertiary hospital Southeast Nigeria

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Background: Preterm birth is defined as any delivery before 37 completed weeks of gestation. Many factors have been associated with preterm delivery. Globally, prematurity contributes to about 75% of neonatal mortality world-wide. The burden of pre-term birth is high in low- and middle-income countries especially those in Sub-Saharan Africa.

Objectives: This study aimed to determine the prevalence of pre-term birth and the associated risk factors in Special Baby Care Unit (SCBU) of Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi, South-east Nigeria.

Methods: This study was carried out in SCBU of NAUTH Nnewi, between June 2020 and May 2021. This was a cross sectional observational study. Structured interviewer administered questionnaire was used to obtain participants gender, gestational age, birth weight, mode of delivery, socio-economic class, maternal marital status, sepsis, multiple pregnancy, diabetes mellitus (DM), drug abuse, trauma with drainage of liquor and preeclampsia/eclampsia. Data was analyzed with level of significance for test set at 5%.

Results: Of the 636 babies recruited for the study, 324 (50.9%) were males, 472(74.2%) were term babies and 468(73.6%) were delivered vaginally. The prevalence of preterm delivery was 25.8%. The independent risk factors associated with occurrence of Preterm delivery were Low birth weight, Low SEC, Delivery via Caesarean section, maternal Preeclampsia/Eclampsia, multiple pregnancy, maternal trauma with drainage of liquor, and maternal DM. ($P < 0.05$). After logistic regression, the

odds for occurrence of preterm delivery was highest for Maternal trauma with drainage of liquor (OR = 16.65).

Conclusion: This study shows that if mothers can reduce hard labour with stressful homework and improve more on their SEC, the prevalence of preterm delivery can be reduced in the study area.

040

NEO-84: Evaluation of the use of 7.1% chlorhexidine gel for umbilical cord care in newborns delivered at the Lagos Island maternity hospital

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Background: In 2019, 2.4 million newborns died globally in the first four weeks of life with Nigeria having the second highest burden of neonatal deaths. Umbilical cord related sepsis contributes a third of this. The World Health Organizations recommends application of chlorhexidine (CHX) gel to the umbilical stump in countries with high neonatal mortality rate (> 30 deaths per 1000 live births).

Objectives: This study evaluated the use of CHX gel for umbilical cord care in newborns delivered at the Lagos Island Maternity Hospital and factors influencing its use. **Methods:** A cross sectional descriptive study was conducted between July and November 2020 on 400 healthy term newborns delivered at the hospital. A pre-tested structured interviewer-administered questionnaire was used to obtain biodata and clinical information after which clinical examination was carried out on the babies. They were followed up to collect other information required via phone calls and videos, home visits and hospital visits.

Results: It revealed that 296 (80.2%) mothers used CHX gel, 177 (48.0%) combined it with other cord care agents, 119 (32.2%) used it alone while 73 (19.8%) used only other cord care agents. The mean cord separation time for all the study subjects and with use of CHX gel were 9.21 days ± 3.4 and 9.32 ± 2.9 days (F-value 4.644, p -value < 0.001) respectively

Conclusion: Uptake of CHX gel has increased with its heightened awareness and high level of maternal education. Prolonged cord separation time leads to the discontinuation of its use and resort to use of non-beneficial agents.

041**NEO-103: Neonatal respiratory distress; aetiological profile and predictors of survival at the Limi Children's Hospital Abuja.***Igoche DP¹**The Limi Children's Hospital, Abuja, Nigeria.*

Background: Neonatal respiratory distress (NRD) is common and a major cause of neonatal mortality.

Objectives: This study aims to determine the aetiological profile of NRD and predictors of survival among them.

Methods: The electronic medical records of all neonates admitted into the neonatal intensive care unit of the Limi Children's Hospital, Abuja over a one-year period were analyzed. Respiratory distress was diagnosed by presence of one or more of abnormal respiratory rate, signs of labored breathing, with or without cyanosis. Socio-demographic and clinical variables of the neonates were retrieved, described, and analyzed using logistic regression models.

Results: Prevalence of NRD was 95% out of the 55 newborns studied; 38 (73.1%) neonates had primary pulmonary pathologies and 14 (26.9%) had non-pulmonary pathologies. Forty-three neonates (82.7%) of the 52 with NRD survived, while mortality was recorded in 17.3% (respiratory distress syndrome in 9.6%, hypoxic ischemic encephalopathy 5.8% and complex congenital heart disease 1.9%). Those with NRD of non-pulmonary origin were 0.15 times less likely to survive (CI 0.00-0.56, $p=0.023$) compared with those who had primary pulmonary pathologies. Administration of continuous positive airway pressure was found to be significantly associated with survival ($\chi^2=0.028$, $p=0.027$), and for every 1-week increase in gestational age, neonates were 1.62 times more likely to survive (CI 1.11-2.36, $p=0.013$).

Conclusion: Respiratory distress is common in neonates, and respiratory distress syndrome is both the commonest aetiology and cause of mortality. Oxygen administration via CPAP is necessary for survival in these neonates, who should be delivered nearer term.

042**NEO-114: Blood Glucose Profile of Exclusively Breastfed Healthy Newborns in the First 24 Hours of Life at Obio Cottage Hospital, Rivers State.***Chukwuma AC¹, Tabansi PN¹, Opara PI¹**Department of Paediatrics, University of Port Harcourt Teaching Hospital, Rivers State.*

Background: Healthy newborns have transient, self-limiting low blood glucose levels as part of their adaptation to extrauterine life. Despite this knowledge, the practice of prelacteal feeding, as a result of the erroneous perception of hypoglycemia among newborns that are considered not to have breastfed optimally, persists.

Objectives: This study sought to proffer a profile of blood glucose levels for healthy newborns in the first 24

hours of life.

Methods: This was a longitudinal study conducted over six weeks among 240 exclusively breastfed, healthy term newborns delivered at Obio Cottage Hospital. The Finetest glucometer was used to measure blood glucose by the bedside at birth, 3, 12 and 24 hours.

Results: The newborns comprised 137 (57.1%) males and 103 (42.9%) females. One hundred and ninety (79.2%) babies were born by spontaneous vertex delivery (SVD) and 50 (20.8%) by elective Caesarean Section (CS). One (0.4%) newborn had asymptomatic hypoglycaemia with a blood glucose level of 2.1mmol/L at 3 hours of life and was delivered by SVD. The mean blood glucose profile for the study population were 4.48 ± 1.09 , 3.68 ± 0.65 , 3.71 ± 0.55 and 4.09 ± 0.51 mmol/L at birth, 3, 12 and 24 hours of life respectively.

Conclusion: Healthy newborns have normal blood glucose profile in the first 24 hours of life.

043**NEO-126: Newborn Screening for Haemoglobinopathies in Bida, North Central Nigeria.***Folayan OS¹, Bello AO¹, Ernest SK²**Federal Medical Centre Bida, Niger State, University of Ilorin Teaching Hospital, Ilorin.*

Background: The global annual population of newborns with structural haemoglobin disorders is estimated at five million. Nigeria accounts for more than 30% of these in Sub-Saharan Africa with under-five mortality from haemoglobinopathies reaching 50-90%. Despite this huge burden and a 15-fold reduction in deaths from haemoglobinopathies in countries that conduct newborn screening, most sub-Saharan Africa countries do not have a screening program. Haemoglobin electrophoresis is also not sensitive for newborn screening.

Objectives: This study was carried out to determine haemoglobin phenotype patterns and frequency in neonates attending routine immunization clinics in Bida, and to identify factors associated with the occurrence of haemoglobinopathy.

Methods: It was a descriptive cross-sectional study that recruited 254 neonates by multi-staged sampling technique from nine immunization centers. Heel prick blood sample collected on Guthrie cards were tested using High-Performance Liquid Chromatography (HPLC). The relationship of various risk factors with the occurrence of an abnormal haemoglobin variant was analysed with the Statistical Package for Social Sciences.

Results: The Hb phenotypes found in this study were HbFA- 73.6% (187/254), HbFAS- 23.2% (59/254), HbFAC- 1.6% (4/254), HbFS- 1.2% (3/254), and HbFAD-0.4% (1/254). There was an almost equal abnormal haemoglobin occurrence in both genders. The majority (89%) of mothers did not know their Hb phenotype, one-quarter of these had a newborn with an abnormal phenotype and 20% married in consanguineous marriages. Wrong perception of sickle cell disease was common.

Conclusion: Abnormal haemoglobin variants were pre-

sent in more than one-quarter (26.4%) of the neonatal population studied in Bida. Most parents were not aware of their haemoglobin phenotype and had a wrong perception of sickle cell disease. Consanguinity though common in the population did not significantly affect the occurrence of an abnormal haemoglobin phenotype.

Keywords: Newborn screening, Haemoglobinopathy, Chromatography

044

NEO-132: Prevalence and factors associated with foetal malnutrition among neonates in the University of Uyo Teaching hospital, Uyo, Nigeria.

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Background: Foetal malnutrition (FM) is common in Nigeria and other developing countries and it is a significant contributor to perinatal morbidity and mortality. It is the inability to acquire fat or is the intrauterine loss of adequate amount of fat, subcutaneous tissues and muscle mass due to inadequate supply and or utilisation of nutrients in utero. It may be associated with some maternal and paternal risk factors.

Objectives: The aim of this study was to determine the prevalence of foetal malnutrition among neonates seen in the University of Uyo Teaching Hospital, Uyo and to find maternal and paternal risk factors associated with the condition.

Methods: This was a prospective cross-sectional study conducted between January 15th 2019 to May 14th 2019. Foetal malnutrition was determined using the clinical assessment of nutritional status score (CANSCORE) done within the first 24 hours of birth. Foetal malnutrition was defined as a total score of less than twenty-five. Maternal antenatal history was gotten from her antenatal records, while her weight, height and mid arm circumference were measured and recorded in a proforma. Paternal age, occupation, weight and height were also recorded. Socioeconomic status of the family was determined using the method proposed by Olusanya *et al.*

Result: The prevalence of foetal malnutrition was 32.5% using CANSCORE. Maternal factors associated with foetal malnutrition were young age, unmarried status, low level of education, unbooked status, failure to use intermittent preventive treatment (IPT) for malaria prevention, medical illnesses, passive smoking, low socioeconomic class and malnutrition. Paternal weight and height (less than 70kg and less than 161cm respectively) were also associated with foetal malnutrition.

Conclusion: The prevalence of foetal malnutrition among neonates seen at the UUTH, Uyo was high. Foetal malnutrition was associated with some maternal and paternal factors. The assessment of foetal malnutrition using CANSCORE should be incorporated into the routine newborn care.

045

NEO-144: COVID-19 lockdown measures adversely impacted the health of vulnerable newborns in Nigeria

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Background: Studies have shown differences in the effects of COVID-19 lockdown measures on health systems and children's health in different settings. We evaluated the impact of COVID-19 lockdown on healthcare access and service utilization in 8 hospitals in Nigeria, reflecting different geographical and socioeconomic zones.

Methods: In a retrospective analysis of admission notes and hospital records, we assessed 1) frequency of institutional deliveries and 2) age at presentation, illness, and outcomes of neonatal admissions before (March 2019 to February 2020) and during (March 2020 to February 2021) the COVID-19 pandemic lockdown.

Results: Institutional deliveries pre-lockdown were 5490 but fell to 3836 during the COVID-19 lockdown (a fall of 30.1%). For newborn admissions, 2477 were admitted pre-lockdown and 1,336 (35.04%) during lockdown (46.1% fall). The reduction also affected preterm infants, with 736 admitted pre-lockdown and 450 during lockdown (37.9% fall).

Neonatal mortality during the COVID-19 lockdown almost doubled compared with pre-lockdown (52/1000; 10.7% vs. 27/1000; 5.8% respectively). Significantly more babies who required continuous positive airway pressure died during the lockdown period (p=0.012). Although the mean length of hospital stay did not vary significantly before and during lockdown (8.5 and 8.2

days, respectively, $p=0.20$), our findings suggest more severe illness and late presentation with more complications occurred during the lockdown.

Conclusion: Covid-19 lockdown negatively impacted newborn health in Nigeria. The marked reductions in institutional delivery and service utilization rate for sick newborns resulted in an increased neonatal mortality rate. This almost doubled the institutional neonatal mortality rate and is a threat to SDG 2030 attainment.

046

NEO-168: Giant cystic Umbilical Cord in A Post-Term Nigerian Neonate

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Background: Umbilical cord cysts may be described as true cysts or pseudocysts. True cysts have an epithelial lining and are remnants of the allantoin while pseudocysts arise from liquefaction of Wharton's jelly. Umbilical cysts complicate as many as 3% of pregnancies but generally regress by the end of the 1st trimester. Cysts that persist beyond 12 weeks may be associated with other malformations. Giant umbilical cord pseudocysts are extremely rare malformations.

Methods: Reports from the records of a one-day old male referred to our newborn unit were reviewed. Details of his treatment, progress and ultimate discharge were documented.

Results/Case Report: A one-day old male delivered via emergency caesarean section on account of foetal distress was referred to our newborn unit on account of a large umbilical cord. GA at delivery was 43 wks. Birth weight was 4kg. No anomalies were recorded on prenatal USS. A large cystic swelling was noted extending for most of the length of the cord. Three umbilical vessels could be seen clearly through the swelling. Largest diameter was about 8cm. Systemic examination was essentially normal. Abdominopelvic ultrasound scan showed normal findings.

Conclusion: Giant cystic umbilical cords are rare and may be associated with chromosomal or other significant structural anomalies. In the absence of other anomalies, treatment is conservative as cyst regresses with time.

047

NEO-173: Implicated Aetiological Agents of Neonatal Urinary Tract Infection and Their Antimicrobial Sensitivity Pattern in a Tertiary Health Care Centre, Uyo, South-South Nigeria

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Background: Timely and effective antimicrobial therapy

is important in the management of urinary tract infection in the new born. An accurately tailored empirical therapy, informed by periodic documentation of the aetiological agents through urine culture and antimicrobial sensitivity pattern determination is imperative in achieving this goal. This will reduce potential morbidities of delay, and ensure effective therapy before the arrival of urine culture results. The organisms causing neonatal UTI in the University of Uyo Teaching Hospital Uyo, Nigeria and their antimicrobial sensitivity pattern have not been documented in research.

Objective: To determine the implicated aetiological agents of Neonatal Urinary tract infection (UTI) in the University of Uyo Teaching Hospital and their antimicrobial sensitivity pattern.

Methods: A cross-sectional study on all neonates diagnosed as 'suspected sepsis' who underwent sepsis evaluation between December 2013 and September 2015. Urine specimens were collected by clean catch urine collection method for culture.

Results: *Escherichia coli* was the commonest organism isolated. Others were *Klebsiella pneumonia*, *Morganella species* and *Staphylococcus aureus*.

Conclusions: *Escherichia coli* was the commonest organism which was sensitive to some of the third generation Cephalosporins such as Ceftazidime and Cefotaxime. Sensitivities to Ceftriaxone, Cefuroxime and Gentamicin which initially were routine in the management of neonatal infections in the facility was comparably low.

048

NEO-181: Effectiveness of early warning signs as predictors of neonatal outcome at the University College hospital Ibadan

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Background: Neonatal death has remained a public health concern. Early warning signs (EWS), though subtle, frequently preceded deterioration, allowing an opportunity for timely action and improved outcomes.

Aim: To determine the utility of early warning signs in neonatal outcomes at the University College Hospital, Ibadan

Method: This was a retrospective study of 371 neonates managed at the neonatology wards of the University College Hospital in the year, 2019. Data was obtained from the chart review of the patients.

Results: Out of the 371 children admitted, 203 (54.7%), were males and 168 (45.3%) were females. About 263 (70.9%) were out-borns with majority admitted at 154 hours of life. Most of the mothers were multiparous (58%) from a lower social class. Of the 371 admitted, 198 (53.3%) had EWS at admission. Mortality was significantly associated higher EWS (35.2%) at admission (p -value 0.0001). Appropriate and rapid response to

EWS by the health workers was only observed in 64% of newborns. Respiratory rate, heart rate and oxygen saturation at admission correlated positively with mortality ($r=0.72$).

Conclusion: The appropriate utilisation of early warning indicators has the potential to enhance newborn outcomes, however, present practice is poor. If the current narrative of neonatal outcomes is to be reversed, there is an urgent need to enhance effective use of EWS.

049

NEO-183: A Case Report of Bronchopulmonary dysplasia in a Nigerian moderate preterm, low birth-weight neonate: challenges of management in a low-resource setting

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Background: Bronchopulmonary dysplasia (BPD), a prematurity-associated chronic lung disease defined as persistent oxygen dependence by 36-week post-menstrual age (PMA), arises as interplay of arrested alveolarisation, inflammation and disruption of the developing parenchyma. It is commoner in extreme/very preterm and extremely-/very-low-birthweight infants, especially when mechanically-ventilated. Scarcity of reports of BPD in Nigeria suggests its rarity, however, this may reflect clinician's under-recognition/-diagnosis, under-reporting or poor preterm survival. We thus report a case, while highlighting management challenges.

Case: A 3-week-old male preterm infant (EGA=33-week, BWt=1600g, 36-week PMA) was referred from a General hospital with respiratory distress and oxygen-dependence, persistent since birth. He was born vaginally following abnormal vaginal discharge and preterm labour, mother and baby had no steroids and surfactant, respectively. Examination showed severe respiratory distress (tachypnoea, intercostal/subcostal/sternal recessions). CXRay from referring hospital showed widespread reticular-lucent markings, suggesting BPD, later confirmed with chest CT. He was placed on improvised bubble CPAP, prednisolone and antibiotics (ceftriaxone; azithromycin). Oxygen-dependence persisted till 4th-week post-admission, with hospitalisation characterized by parental financial and emotional burnt-out, especially as discharge on home-oxygen remained logistically non-feasible. He was eventually discharged home off-oxygen at 42-week PMA (SpO₂ 94%). At last follow-up (4-month-old), he had wheezy chest infection that responded to salbutamol-nebulisation and oral antibiotics. Follow-up with mother showed clinical stability.

Conclusion: Identified risk factors were prematurity,

non-receipt of antenatal steroids, respiratory distress syndrome untreated with surfactant, male sex, chorioamnionitis and prolonged oxygen-therapy. BPD management can be cost-intensive due to prolonged in-hospital respiratory support, hence necessitating psycho-social support for affected families.

050

NEO-193: Invasive fungal infection presenting as early onset neonatal sepsis: a case report from federal medical Centre birnin kibbe, north-western Nigeria

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Background: Invasive Fungal Infection (IFI) still remains a major cause of neonatal morbidity and mortality in the neonatal intensive care units but an unusual cause of early onset neonatal sepsis. We report a case of Candida parasilopsis infection mimicking early onset bacterial neonatal sepsis

Case presentation: The patient was a 6-day old low birth weight late preterm neonate who was admitted into our Special Care Baby Unit with complaints of fever, refusal to feed, and vomiting since birth. He was initially managed for congenital malaria in another hospital but presented to our facility due to recurrence of symptoms within 48 hours after discharge. He was initially evaluated and managed for early onset neonatal sepsis in our facility. His clinical condition deteriorated within the first week of admission. The result of blood culture sample taken yielded Candida parasilopsis. Amphotericin B was administered following which his clinical condition improved significantly. He was discharged home after 25 days of admission.

Conclusion: In the event of poor response to appropriate treatment for suspected bacterial neonatal sepsis in preterm infants, the presence of oral thrush should raise the suspicion of invasive candidiasis and concerted effort at prompt diagnosis and treatment should be made.

051

NEO-210: Intra ventricular hemorrhage in the preterm newborn at the Federal Medical Center, Asaba.

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Background: Preterm birth is one of the leading causes of neonatal mortality. Respiratory distress syndrome (RDS) and Intraventricular hemorrhage (IVH) are acclaimed causes of mortality and morbidity in this category of newborns. There is paucity of information on the contribution of IVH to neonatal morbidity in our local environment. We assessed the effect of antenatal and immediate post-natal management on the frequency of IVH and its complications in the very preterm newborns.

Methods: This was a prospective observational study. The very preterm < 32 weeks gestation and < 1500gms were recruited. The modalities of care for the inborn mother/ newborn pair were assessed. This included antenatal corticosteroids, magnesium sulfate and post-natal provision of respiratory support with the bubble CPAP, Caffeine citrate, surfactant, human breast milk feedings, family centered care (FCC) etc. The babies had serial trans-fontanelle scan (TFS) within the first 24 hours of life, at 5th and 7th day and at other times when clinically indicated.

Results: Over the period May to October 2021, 242 newborns were admitted to NNU, of these 66 were < 37 weeks; 38 <32 Weeks. Only 20 very preterm had TFS and IVH of varying severity was documented in 30% (6/20), 50% (3/6) eventually died, including one who had massive IVH and post hemorrhagic hydrocephalus and died post neonatally. The rest, 17 preterm are being followed up at the preterm clinic. Identified risk factors in the babies with IVH were severe maternal preeclamptic toxemia, lack of maternal prenatal corticosteroids, maternal peri-partum sepsis, and transfer of babies from long distances.

Conclusion: IVH in very preterm carried a high neonatal and post neonatal

052

NEO-231: Knowledge, practice and predictors of good newborn cord care among mothers in Bayelsa State, Nigeria

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Background: Neonatal deaths, 42% of which are due to infections, contribute to one-third under-five deaths in Nigeria. In spite of the adoption of the national policy on the use of Chlorhexidine gel for cord care, persisting

poor cord care practices continues to impact negatively on newborn health hence the need to determine the knowledge, practice and predictors of good newborn cord care.

Methods: This community-based descriptive cross-sectional study involved 600 randomly selected mothers of under-fives recruited with interviewer-administered questionnaires in selected communities in Bayelsa State. Multivariate logistic regression analysis was used to identify predictors of good cord care practices.

Results: The mean age of mothers was 30.2 (\pm 6.8) years, 73.2% were married and 76.3% had at least secondary education. The major sources of knowledge of cord care were mothers (62.7%) and health care workers (60.8%) and 17.2% had acceptable knowledge while 34% adopted them. Substances used for cord care included methylated spirit (90.5%), hot compress (87.0%), antibiotic ointment (71.1%), vaseline (55.0%) etc with 74% applying harmful substances. Predictors of good cord care practice included source of information from health workers (aOR-1.76; 95% CI: 1.07-2.88), urban residence (aOR-1.77; 95% CI: 1.03 - 3.04), antenatal care attendance (aOR-3.33; 95% CI: 1.28 - 8.68) and having fair (aOR-1.78; 95% CI: 1.12- 2.82) or good (OR - 7.39; 95% CI: 3.79 - 14.40) level of cord-care knowledge.

Conclusion: This study has highlighted the need to encourage uptake of facility-based antenatal care and education on good cord care practices.

PAEDIATRIC NEPHROLOGY

053

NEP-5: Paediatric kidney transplantation: report from a kidney transplant centre in Nigeria in the COVID -19 era.

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Background: Kidney Transplantation (KT) is the preferred renal replacement therapy (RRT) for patients with End Stage Renal Disease (ESRD). With rising incidence of ESRD in children, an increased demand for KT has been observed. Globally, the negative impact of the COVID 19 pandemic on the availability of appropriate RRT is well documented.

Objectives: At Zenith Medical and Kidney Centre, Abuja, we report our paediatric renal transplant experience during the COVID 19 pandemic over an 18 month period.

Methods: Patient data were obtained from electronic medical records. A simple analysis was conducted and

presented in tables and charts.

Results: A total of 4 paediatric KT procedures were done during the period under review. 75% of the recipients were males. They were aged 11, 14, 15 and 17 years at presentation. All had abnormal BMI at presentation. They were on thrice weekly hemodialysis and the duration of CKD before transplant was 8, 21, 28, and 29 months respectively. The aetiologies of the CKD were Nephrotic Syndrome and Chronic Glomerulonephritis. The prevalent comorbidity was hypertension, others were anaemia and hepatitis C infection. After transplant, the blood pressure and BMI of the 4 patients normalized, urine output became optimal, and anaemia resolved. The 1-month, 3-month, 6-month and 1-year patient and graft survival were 100% respectively.

Conclusions: As a result of the uncertainties associated with COVID-19 and the complexities of renal transplant procedures in children, transplant centres globally either stopped or reduced their operation. Following stringent precautions, we were able to continue offering KT to our paediatric patients

054

NEP-64: Childhood nephrotic syndrome in Enugu, South-East Nigeria: a 5 year retrospective review

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Background: Nephrotic syndrome is the commonest glomerular disease of childhood. Majority of the idiopathic cases frequently respond to steroid therapy and are regarded as steroid-sensitive nephrotic syndrome (SSNS). Several studies have reported a change in this usual pattern in Nigerian children.

Objective: This study aims to determine and ascertain if there is a change in the steroid sensitivity pattern of childhood idiopathic nephrotic syndrome seen at Enugu, south-east Nigeria.

Methods: A retrospective descriptive study of children with nephrotic syndrome seen at the University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu, over a 5 year period from 2016 – 2020 was conducted. The socio-demographic, clinical (including response to steroid therapy and renal-transplant cases) data and histopathological pattern (including indications for renal biopsy) were documented.

Results: Out of a total of 150 patients, 105 (70%) were males while 45 (30%) were females. Ninety-six (64%) of the patients were aged between 1 - 10 years whereas fifty-four 54 (36%) were adolescents aged 11 - 18 years. Their mean age was 8.67 ± 4.69 . One hundred and eighteen (78.7%) of the patients had idiopathic nephrotic syndrome while the rest (21.3%) had secondary nephrotic syndrome from systemic lupus erythematosus, sickle cell anaemia, and post streptococcal glomerulonephritis. Only 44 (29.3%) were steroid resistant, of which 11 (7.3%) of them received calcineurin inhibitors. One hundred and six (71%) of the patients initially had

SSNS of whom twelve (11.3%) and seven (6.6%) later became frequent-relapsers and steroid-dependent respectively. Notably forty-four (29.3%) patients were initially steroid-resistant, eleven (7.3%) of them received calcineurin inhibitors. Sixty-eight patients had renal biopsy, the commonest indication being steroid-resistance. The commonest histological pattern was Focal Segmental Glomerulosclerosis (63.2%). Only four (9%) had renal transplant.

Conclusion: Although the prevalence of SSNS is still high in this clime, there is rising trend towards steroid-resistance. This change may be attributed to incident cases of FSGS.

055

NEP-128: Urinary abnormalities among secondary School Children in Calabar, Nigeria.

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Background: Urinalysis is an important screening tool for early detection of renal diseases.

Objectives: This study was aimed at determining the prevalence of urinary abnormalities among secondary school children in Calabar, Nigeria.

Methods: This was descriptive cross-sectional study of 347 apparently healthy secondary children aged 8-19 years recruited by multi-staged sampling. Semi-structured questionnaire was used to obtain their biodata and clinical history. Subjects' height and weight were measured using a Stadiometer, Body Mass Index (BMI) calculated and Blood pressure was measured. Early morning urine was obtained from each participant and urinalysis done using dipstick combi-10. Data were analyzed using SPSS Version 22.0 and P-value 0.05 was significant.

Results: Out of 347 participants, 146 were males and 201 females giving a M:F ratio of 1:1.4, their ages ranged from 8 to 19 yrs with a mean age of 13.5 ± 0.7 yrs. The prevalence of urinary abnormalities was 92 (26.5%). Nitrite was the most frequent urinary abnormality 71 (20.5%) and was statistically significant in relation to age and sex. Others include: Proteinuria 14 (4.0%), Urobilinogen 8 (2.3%) and Haematuria 4 (1.2%). Age range 11-13 yrs and females were the most frequent with urinary abnormalities and statistically significant. However, blood pressure, overweight and obesity were not statistically significant in relation to urinary abnormalities.

Conclusions: The prevalence of urinary abnormalities was 26.5%. Nitrite was the most frequent and statistically significant with respect to age and sex. Hence, screening for asymptomatic urinary abnormalities such as nitrite, proteinuria and haematuria among secondary

school children is important in detecting renal diseases.

056

NEP-129: Still's disease with renal involvement in a 15-year-old female adolescent at FMC Asaba: case report

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An adolescent girl presented with chronic non-itchy photosensitive haemorrhagic rash, joint pains, sore-throat, facial puffiness and leg swelling. She had facial puffiness, was febrile 38⁰C, had bilateral pitting grade 3 leg oedema, oral ulcers, non-itchy photosensitive haemorrhagic rash on the lower limbs and trunk with interspersed hypopigmented macules. She had tender, swollen non-erythematous joints with reduced range of motion but no joint crepitus was demonstrated. There was no peripheral lymphadenopathy, muscle wasting, nor hepatosplenomegaly. The blood pressure, pulse rate, respiratory rate and heart sound were normal. No abnormal auscultatory findings in the chest. Bedside urinalysis showed 3+ proteinuria and no haematuria.

Initial consideration was lupus nephritis; however, serology was negative for antinuclear antibody (ANA) and anti-double-stranded DNA (dsDNA). Erythrocyte sedimentation rate (ESR) and serum ferritin were markedly elevated and rheumatoid factor and cyclic citrullinated peptide (anti-CCP) were normal. In addition to the presence of fever, non-itchy rash, polyarticular arthritis and sorethroat, a diagnosis of Still's disease was made. Renal function test was marginally deranged. She was given steroid, Methotrexate, Azathioprine, with gradual resolution of symptoms.

057

NEP-145: Childhood-onset systemic lupus erythematosus with lupus nephritis in a 3- year-old Nigerian child: A rare occurrence – case report.

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Background: Systemic lupus erythematosus (SLE) is a chronic multi-systemic autoimmune disease that is difficult-to-diagnose due to the plethora of clinical presentations. A high index of suspicion is required for early detection of childhood-onset SLE (c-SLE) as it presents a more severe disease with poorer prognosis when compared to adults. Occurrence below five years is very rare and occurs more in non-Caucasian populations. Renal involvement called lupus nephritis (LN) occurs in 50 – 80% of all c-SLE patients with 80-90% developing LN within a year of diagnosis. LN, one of the most severe manifestations of c-SLE is a major risk factor for morbidity and mortality.

Case Report: We present the case of a 3-year-old girl

with more than 4 diagnostic criteria for SLE clearly documented, which could constitute the first reported case of SLE with lupus nephritis in South-south, Nigeria. Renal histology showed focal mesangio-proliferative glomerulonephritis with no crescents consistent with Lupus Nephritis Class IIIA of ISN/RPS classification. She responded to therapy with induction remission with pulse methylprednisolone/ oral corticosteroid - mycophenolate mofetil therapy and is in remission.

Conclusion: C-SLE with LN is not uncommon but presentation before 5 years is rare and should be suspected in young children presenting with bizarre multisystemic manifestations. Survival in our settings largely depends on accessibility to diagnostic facilities and availability of funds to promptly diagnose and manage the disease.

058

NEP- 158: Prevalence of hyperfiltration in sickle cell anemia children in Calabar, Nigeria

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Background: Sickle Cell Anemia (SCA) is an autosomal recessive condition with two abnormal hemoglobin S. Asymptomatic nephropathy presenting as glomerular hyperfiltration starts in childhood and progresses to overt renal dysfunction in adult life increasing the morbidity and mortality of this genetic disease.

Method: This cross-sectional study was carried out to determine prevalence of glomerular hyperfiltration using serum cystatin C estimated Glomerular Filtration Rate in 80 steady state SCA children attending the sickle cell clinic in UCTH Calabar. Hyperfiltration was defined as GFR 140mls/min/1.73m² as calculated from the Hoek formula. Data was analyzed using SPSS version 22. All tests were done at 5% level of statistical significance (p<0.05).

Result: Glomerular hyperfiltration was prevalent in 90% of the subjects. The association between hyperfiltration and steady state hematocrit levels ($X^2=8.146$, $p=.043$) was significant. All the subjects with steady state hematocrit levels below 20% had hyperfiltration. The proportion of children who received blood transfusion had higher prevalence of hyperfiltration (92.1%;35/38) than the proportion who never received blood transfusion (88.1%;37/42). The variables of age ($r_s=-.150$, $p=.184$), BMI Centile ($r_s=-.190$, $p=.092$) and steady state hematocrit ($r_s=-.243$, $p=.030$) had negative correlation while number of blood transfusions ($r_s=.047$, $p=.685$), Systolic BP Centile ($r_s=.080$, $p=.483$) and Diastolic BP Centile ($r_s=.217$, $p=.262$) had positive correlation to GFR estimated from serum cystatin C.

Conclusion: Hyperfiltration is prevalent in SCA children in steady state. GFR estimates from serum Cystatin C is recommended in detection of hyperfiltration during screening of SCA children for asymptomatic nephropathy.

059

NEP-219: Challenges of management of chronic kidney disease in a single centre in Southern Nigeria.*Ekpenyong EE¹, Akpan UM¹, Ikpeme EE¹.**Department of Paediatrics, University of Uyo Teaching Hospital, Uyo, Akwa Ibom State.*

Background: Chronic kidney disease (CKD) in children has gained a lot of attention in recent times especially with its increasing incidence globally. While children in developed countries are seen in the earlier stages of the disease when management can be structured for better outcome, most children in developing countries present in End Stage Renal Disease (ESRD) where Renal Replacement Therapy (RRT) is required for survival. Renal transplantation, a more cost effective RRT requires highly specialized teams, availability of donors, dialysis back up, physical and legal infrastructure with the additional barrier of cultural bias against organ donation. The management of children with CKD in developing countries is therefore plagued with numerous challenges.

Objectives: To highlight the challenges faced with the management of CKD in children in a tertiary centre in southern Nigeria

Methods: A retrospective study in which data of all children managed for CKD in UUTH over a 10year period (January 2012- November 2021) was reviewed highlighting the stage of CKD at presentation and challenges encountered in the management of these patients.

Result: CKD accounted for 16% of the renal diseases (232) and 0.67% of all admissions (5787) into the children's ward during the study period. All CKD patients presented with complications of which 79% presented in stage 5 of the disease. Sixty seven percent of the CKD patients Left Against Medical Advice (LAMA), while 23% died. None of the patients had adequate dialysis or regular monitoring of biochemical parameters due to poor finances. Renal biopsy was not carried out in any CKD patient.

Conclusion: Late presentation, high cost of haemodialysis, lack of diagnostic facilities and nonavailability of Noncommunicable Diseases Prevention Programmes are the main challenges faced in this centre.

PAEDIATRIC NEUROLOGY

060

NEU-40: Epidemiology of Epilepsy In Children With Cerebral Palsy In Cross River State, Nigeria*Torty C¹, Duke RE^{2,3}, Eyong K¹, Asindi AA¹, Bowman R³, Burton K³.**Department of Paediatrics, University of Calabar Teaching Hospital, Calabar, Nigeria**Department of Ophthalmology, Calabar Children's Eye Centre, University of Calabar Teaching Hospital, Calabar, Cross River State, Nigeria**London School of Hygiene and Tropical Medicine, International Centre for Eye Health London, United Kingdom.*

Background: Epilepsy is one of the common comorbidities associated with cerebral palsy. It is difficult to treat and may run a lifelong course.

Objective: We aimed to describe epilepsy in children with cerebral palsy.

Methods: This was an observational population based cross sectional study. Children with CP in the three districts of Cross River State, Nigeria were investigated. Children 4-15 years were included. The clinical characteristics of children with cerebral palsy and epilepsy in comparison to those of children with cerebral palsy without epilepsy are described. In the absence of a cerebral palsy registry and resources to perform a survey, the key informant methodology (KIM) was selected as the most cost-effective and appropriate sampling strategy to identify children with CP. Referred children were then assessed first of all by a paediatric neurologist in the primary health centre to determine if they met the inclusion criteria for CP, this was followed by a detailed assessment for comorbidities. Comorbid conditions were confirmed by history, clinical and standardized evaluations by a paediatric neurologist, medical social workers, optometrists and ophthalmologists.

Results: Epilepsy occurred in 130/ 388 (33.5%) children. The mean age of children with CP and epilepsy was 8.9(standard deviation \pm 4.1years; median 9 IQR (5,13). 77(59%) were males and 53(41%) females. CP severity was described using the Gross Motor (GMFCS) with the following distribution: GMFCS I 32/130(25%) GMFCS II 45/130(35%), GMFCS III 12/130(9%), GMFCS IV 11/130(8%) and GMFCS V 30/130(23%). 75/130(58%) children with epilepsy compared to 98/258 without epilepsy (38%) had severe communication function (4-5) impairment ($p < 0.001$). CP type was described in those with epilepsy and showed: Spastic 91(70%), Choreathetoid 3(2%), Dyskinetic 8(6%), Ataxic 12(9%) and Unclassified 16(12%). The aetiology for children with CP and epilepsy was more often post neonatal in timing in those with epilepsy) (70/130(53.9%) vs 70/258 (27.1% $p < 0.001$). Associated comorbidities with epilepsy were: learning disability 122/130(93.8%) vs 220/258(85.2%); $P = 0.014$, cognitive impairment 105/130 (8.8%) vs 164/258(63.6%) ; $P = 0.001$, abnormal behaviours 92/130(70.8%) vs 139/258 (53.9%); $P = 0.001$, swallowing difficulty 90/130(69.23%) vs 209/258 (81.0%) $p = 0.009$, hearing impairment 22/130(16.9%) vs 24/258(9.3%) $p = 0.028$. On ophthalmic assessments, children with epilepsy showed higher rates of: Visual acuity impairment 91/130(70%) vs 127/258(49.2%) $p < 0.001$, Abnormal smooth pursuit 34 (26.1%) vs 37/258 (14.3%) $p = 0.005$, abnormal saccades 41/130(31.5) vs 43/258(16.7%) $p = 0.001$, contrast sensitivity 76/130(58.5%) vs 102/258(39.5%) $p < 0.001$, strabismus 72/130 (55.4%) vs 111/258(43.0%) $P = 0.021$ and perceptual visual disorder 12/130(9.2%) vs 10/258 (3.9%) $p = 0.031$. Only 4/130 (3%) children who had epilepsy received irregular and inadequate orthodox treatment.

Conclusions: Epilepsy is a significant comorbidity in children with cerebral palsy in this population. It is severe and is mostly untreated. Those with epilepsy and cerebral palsy were less likely to attend school. Strate-

gies and implementation programmes for identification, treatment and follow-up, in this LMIC are urgently required.

061

NEU-104: A 5-year Retrospective Review of Attention Deficit Hyperactivity Disorder (ADHD) in Children in Zaria,

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Background: The cause of ADHD is unknown, however, it is believed to arise from complex interactions between genetic, environmental and developmental factors. Risk factors such as low socio-economic status, low parental education, living with a single parent, maternal smoking and drinking, non-vaginal delivery, head trauma, and epilepsy have been associated with ADHD. Children with ADHD are at risk of poor academic performance, dropping out of school, low self-esteem, teenage pregnancies, engaging in criminal behavior, sustaining physical injuries and poor social skills.

Objectives: We carried out a 5- year retrospective review of cases of ADHD in our Paediatrics Neurology Clinic to determine the epidemiology, symptomatology and risk factors for ADHD in our setting.

Methods: Case folders of all children with established diagnosis of ADHD who were being seen at the paediatric neurology clinic of Ahmadu Bello University Teaching Hospital, Zaria from January 2015 to December 2019 were retrieved and relevant information extracted. Statistical analysis was done using Epi Info statistical software version 7.

Results: A total of thirty (30) children were on follow-up for ADHD in the Paediatrics Neurology clinic of Ahmadu Bello University Teaching Hospital, Zaria during the study period. Twenty-four of them were males (80%) while 6 were females (20%). Their ages at presentation ranged from 2 to 15 years for boys (mean=5.2, SD±2.99) and from 2 to 5 years for girls (mean=3.0, SD±1.26). More than half (63.3% n= 19/30) were less than 5 years of age as at the time of first presentation to the clinic. Combined Presentation was predominant in both sexes (83.3%, n= 25/30). Majority, (93.3%, n= 28/30) had a history of CNS insult prior to onset of ADHD symptoms.

Conclusion: Avoiding insults to the CNS early in a child's life can go a long way in preventing onset of ADHD in Nigerian Children.

062

NEU-153: Clinical Profile of Children with Epileptic Encephalopathy in Lagos, Nigeria.

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Background: Epileptic encephalopathy is characterised by refractory seizures and progressive deterioration of cognitive ability thought to be accentuated by the ongoing seizures. Early identification and institution of prompt therapy significantly impacts positively on choice of AED and outcome of the disease. Sadly however, this epilepsy subgroup is frequently missed, wrongly diagnosed and poorly managed with consequent result of poor patient outcomes.

Objectives: This study aims to identify and characterise the types and clinical characteristics of epileptic encephalopathy in children with epilepsy in Lasuth, Ikeja.

Methods: Eleven children with epileptic encephalopathy were identified from a retrospective review of patient clinic records of children with epilepsy over a six-month period at the paediatric neurology clinic, LASUTH. Demographic data, clinical history and findings from physical examination, EEG, neuroimaging and medications administered were obtained and analysed.

Results: The study population was aged 5–36 months (X=14.3 months), mostly male (72.7%), with a M:F ratio of 8:3. The mode of delivery was essentially via SVD. All children presented with seizures, with delayed developmental milestones present in 10 of the 11 patients, the last of whom had a regression following the onset of seizures. Epilepsy types were Infantile Spasms (54.5%), Lennox-Gastaut Syndrome (18.2), Epileptic Myoclonic Encephalopathy (9.1%). 18.2% were unspecified. Etiology included: unspecified/unknown (36.4%), Cerebral palsy (36.4%), post-meningitis (18.2%), and severe perinatal asphyxia with HIE (9.1%). EEG findings were of burst-suppression pattern (36.4%), Lennox-Gastaut pattern (27.3%), Hypsarrhythmia (18.2%), diffuse encephalopathy (9.1%), and a normal EEG (9.1%). AEDs used included Carbamazepine, Sodium Valproate, Levetiracetam, Clobazam, Clonazepam, Diazepam, Phenobarbitone, Topiramate, and Prednisolone. Neuroimaging was done in only 4 cases.

Conclusion: Epileptic encephalopathies occur in children with epilepsy attending the paediatric neurology clinic of Lasuth. They result in clinical, cognitive, social, prognostic and economic consequences whose outcomes are debilitating. Awareness of their existence and prompt institution of therapy enable for better disease outcomes.

063

NEU-154: Landau-Kleffner syndrome in a seven year old Nigerian child

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Background: Landau-Kleffner Syndrome (acquired epileptiform aphasia) is a rare childhood epileptic encephalopathy characterised by progressive deterioration of speech, cognitive impairment, behavioural changes, abnormal electroencephalographic findings and possible occurrence of clinical seizure activity. The site of epilep-

tiform activity relates to the speech areas in the brain (temporal and parieto-occipital regions), and the electric abnormalities are often activated by sleep. A favourable response to therapy is possible with early identification and appropriate treatment, while delay can be catastrophic to recovery of lost speech ability. This regressive syndrome affects children who had achieved normal early development before the onset of disease. Whereas etiology of this condition remains unclear and likely due to heterogenous causes, genetic markers have been identified in some cases. A high index of suspicion is necessary particularly in cases of children with presumed autistic spectrum disorder noticed to be having a fluctuating clinical course or regression.

Objective: This report outlines the clinical characteristics, progression and response to therapy observed in a 9year old Nigerian child with Landau-Kleffner Syndrome.

Method: A detailed review of his clinical records at the paediatric neurology clinic was conducted and information extracted on his clinical history, physical examination, EEG and magnetic resonance imaging of the brain (MRI), as well as response to therapy over the course of management. This information was then evaluated.

Results: He had no dysmorphic or UMN features but was hyperactive with difficulty communicating and obeying orders. He has been refractory to the variety of AEDs given, with seizure-free periods occurring. He demonstrated cognitive impairment and the EEG showed bilateral spike and wave activity mostly in sleep. His major difficulties were psychomotor, behavioural and refractory seizures.

064

NEU-155: Alternating hemiplegia of childhood; report of a 15yr old adolescent female

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Background: Alternating Hemiplegia of Childhood (AHC) is a clinical condition characterised by recurrent incidences of paralysis affecting alternating or both sides of the body, starting from infancy. It is often triggered by stress and noticeably aborted by sleep. Associated deficits include cognitive impairment, seizures, uncontrolled movement of the limbs, and abnormal movement of the eyes. Most cases occur from spontaneous mutation in the ATP1A3 gene, though occasional cases run in families. Detailed assessment is advised in order to distinguish this disorder from conditions with similar clinical features such as benign nocturnal alternating hemiplegia of childhood, infantile epilepsy syndrome and allelic disorders with overlapping clinical features.

Objective: This report outlines the clinical presentation, progression and challenges faced in a 15year old Nigerian girl diagnosed with AHC.

Case Report: A fifteen year old, presented at the child neurology clinic with hemiplegia, cognitive impairment

and intermittent episodes of alternating hemiparesis, affecting most often the right side of the body. She was first seen at the age of 12.5 years. Illness started after infancy and she had been evaluated and treated by different physicians but with no definite diagnosis made. A detailed review of the clinical history, findings on clinical examination, results of investigations and course of illness since diagnosis was conducted and she was commenced on therapy for AHC.

Patient is the second of a set of twins delivered per vaginam after a breech presentation. She reportedly cried well at birth with a birth weight of 1.9kg. The twin brother was well. Her neonatal period was uneventful. She developed recurring episodes of weakness of alternating sides of the body, mostly often affecting the right side. Examination showed a right hemiparesis, UMN signs R>L, shortened right limbs, with a power of 4, slurred speech and atonic seizures. EEG, MRI/MRA, LFT and E/U were done. She was commenced on therapy and followed up in the clinic.

065

NEU-172: Cerebral Palsy among Children seen in University of Port Harcourt Teaching Hospital: Aetiologies and Comorbidities.

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Background: Cerebral palsy (CP) is a common neurologic disorder, particularly in the developing countries where the aetiological factors are preventable. The aim of this study is to determine the pattern of Cerebral palsy among children in Port-Harcourt.

Methods: A one year retrospective descriptive study of patients seen in the Paediatrics Neurology clinic with a diagnosis of Cerebral palsy was done. Demographics and medical history, examination and investigations were obtained from the patients' medical records.

Results: A total of 111 children with CP were seen in the clinic from 1st August 2020 – 31st July 2021. There were 75 (67.6%) males and 36 (32.4%) females giving a male to female ratio of 2:1. Their ages ranged from 6 months to 12 years with a mean age of 3.4±1.9 years. Birth asphyxia 56(50.1%), bilirubin encephalopathy 22 (19.8%) and neonatal infections 8 (7.2%) were the leading cause of Cerebral palsy. The commonest subtype of CP was Spastic quadriplegia in 68 (61.3%) of them. Microcephaly (26.7%), seizure disorder (24%) and speech impairment (16.0%) were the commonest observed comorbidities.

Conclusion: CP is still prevalent in Port Harcourt. Preventable causes remain the leading culprits. Modalities to prevent birth asphyxia and bilirubin encephalopathies in our community will reduce the incidence of CP.

066

NEU-182: Management status and challenges of childhood cerebral palsy amid COVID-19 in Nigeria*Eseigbe EE¹, Lasisi M¹, Eseigbe P¹.**Department of Paediatrics, Benue State University/ Benue State University Teaching Hospital, Makurdi, Nigeria.*

Background: Cerebral palsy (CP) is the commonest cause of motor disability in childhood with poor health and social outcomes in developing countries. The advent of the COVID-19 pandemic has had a negative impact on disease conditions and health systems globally. In order to improve outcomes in childhood cerebral palsy, it is important to appraise the current management status and challenges therein.

Objective: To document the management status of cerebral palsy and challenges associated with providing care, amid COVID-19 in Nigeria

Method: This was a cross sectional study conducted among doctors providing care to children with cerebral palsy in Nigeria in 2020. A questionnaire was used in obtaining information from the doctors through their respective professional platforms online. Information obtained included: Doctor's cadre, years of practice, location of practice, Number of CP cases seen per month, Facilities available and services rendered for CP, CP management indices amid COVID -19, Care challenges and mitigating measures instituted. Data was analysed using descriptive statistics.

Results: A total of 53 specialist doctors, working in secondary and tertiary health facilities, in 17 States and the Federal Capital Territory of Nigeria participated in the study. The commonest services rendered for CP care was a neurologic examination, only 21(39.6%) and 10 (18.9%) subjected patients to Gross Motor Function Classification System (GMFCS) and the Manual Ability Classification System assessments respectively. 29 (54.7%) indicated offering mental health services. Only 6(11.3%) offered patients genetic screening tests. Severity of motor disability, difficulty with feeding as well as inadequate capacity to provide, and support care were the most common challenges indicated. The need to develop institutional, health care provider, and caregiver capacity to provide care were indicated as modalities for overcoming the challenges. CP patient load, evaluation and utilization of available facilities were negatively impacted by COVID -19.

Conclusion: Management of childhood CP is fraught with challenges in Nigeria and has been negatively impacted by the COVID-19 pandemic. Identified gaps need to be adequately addressed to improve CP social and health outcomes in Nigeria.

067

NEU-217: Pattern of presentation of hydrocephalus and outcome in a tertiary hospital in Port Harcourt.*Douglas S¹, Frank-Briggs AI¹, Gabriel-Job N¹ University of Port Harcourt Teaching Hospital*

Background: Hydrocephalus is a disturbance of Cerebrospinal fluid (CSF) formation, flow or absorption leading to an increase in volume occupied by this fluid in the Central Nervous System.

Objective: To describe the pattern of presentation of hydrocephalus in Port Harcourt.

Method: An 18 month (May 2020- Oct 2021) retrospective review of patients with hydrocephalus seen at the Paediatric Neurology Clinic of the University of Port-Harcourt Teaching Hospital. Data was retrieved from the medical records of the patients and analysed.

Results: Thirty one children with Hydrocephalus were seen at the Paediatric Neurology Clinic with their age ranging from 1 day to 12 years. There were 14 (45.2%) Males and 17(54.8%) females with a Male to female ratio 1 :1.2. Among the study participants, 22(70.9%) had Congenital Hydrocephalus while 9 (29.1%) had the Acquired type. The most common clinical features at presentation were increasing head size, excessive crying, poor suck, convulsions, headache and fever. Associated comorbidities included, Acyanotic Congenital heart disease, Congenital talipes Equino Varus and Arthrogryposis. Findings on Magnetic Resonance Imaging gotten from 20 (64.5%) of the patients included Pan ventriculomegaly, increase in extra axial space, thinning of the cerebral mantle, effacement of the sulci and gyri, stenosis of the aqueduct of Sylvius, periventricular seepage of CSF and obstruction at the foramen of Magendie and Luschka. Concerning Patient clinical outcome, 14(45%) had ventriculo- peritoneal shunts, 2(6%) had endoscopic 3rd ventriculostomy, 6(19%) are being worked up for VP -shunting ,8(25%) were lost to follow up and 1(3%) patient died.

Conclusion: Congenital hydrocephalus was the commonest type. The long-term morbidity associated with hydrocephalus requires early intervention and multidisciplinary care to improve outcome.

068

NEU-224: Focal epilepsies in Nigerian children: risk factors and long-term outcomes*Lagunju IA¹, Alejo JN¹, Bayo A¹, Ogbole G¹, Brown BJ¹, Cross H², D'Arco F², Alexander D³, Fernandez-Reyes D³.**Department of Paediatrics, University College Hospital, Ibadan.**Great Ormond Street Hospital for Children, United Kingdom**Department of Computer Science, University College London, United Kingdom*

Background: Epilepsy is the leading neurological disorder worldwide. Focal epilepsies have been reported to

confer a lesser chance of remission.

Objective: To determine the remission rates and its predictors in children with focal epilepsies seen at the University College Hospital, Ibadan.

Methods: A prospective longitudinal study on children with newly-diagnosed focal epilepsies seen over 5 years. All had routine inter-ictal EEGs and 1.5Tesla brain MRI studies in selected cases.

Results: Focal epilepsies accounted for 189 (32.9%) of the 574 cases of epilepsy seen during the period; focal impaired awareness seizure, focal to bilateral tonic, clonic seizure and focal motor seizure in 101 (53.4%), 68 (36.0%) and 20 (10.6%) children respectively. Median age at first epileptic seizure was 30.0 months while median age at diagnosis of epilepsy was 63.0 months. Male to female ratio was 1:1. At presentation, seizure frequency was at least once/month in 123 (65.1%) and 35 (18.5%) had experienced status epilepticus. A positive family history of epilepsy was present in 41 (21.7%). Brain MRI was performed in 99 (52.4%) children and structural brain lesions identified in 6 (6.0%). Carbamazepine is the most frequently prescribed first-line AED (70.9%). Forty (21.2%) had attained at least 12 consecutive months of seizure freedom but 5 (2.6%) failed attempts at AED withdrawal. Adverse perinatal event was significantly associated with poorer seizure outcomes ($p=0.016$).

Conclusion: Focal epilepsy accounts for one in three epilepsies seen in Nigerian children in Ibadan. Structural brain lesions are infrequent on high-field brain MRIs. A history of adverse perinatal event is associated with a poorer prognosis.

069

NEU-225: Primary stroke prevention in sickle cell disease: a decade of routine TCD screening and prophylactic hydroxyurea therapy in Ibadan, Nigeria

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Background: Routine transcranial Doppler (TCD) screening with prophylactic blood transfusions in those with abnormal risk velocities has been recognised as the gold standard for primary stroke prevention in sickle cell disease (SCD). Chronic blood transfusion programmes are not feasible in Africa where the burden of SCD resides.

Objectives: To appraise the sustainability, success and long-term outcomes of the stroke prevention programme for children with SCD in Ibadan, Nigeria.

Methods: A prospective longitudinal study. Routine TCD was incorporated into the comprehensive care of children with SCD at the UCH, Ibadan in July 2009. Yearly and 3-monthly TCDs performed according to stroke risk. Hydroxyurea (HU) was administered by dose-escalation protocol for primary stroke prevention. All were followed up for a minimum period of 12 months.

Results: A total of 830 children with SCD were enrolled in the programme. Follow up ranged from 1 to 10 years, median 3.0 years. Stroke risk was standard, conditional and abnormal risk in 65.3%, 23.0% and 10.6% respectively. Female gender and HbSS phenotype were associated with a significantly higher stroke risk. Six new TCD sonologists were trained during the period and 726 (87.4%) of the children were retained in the programme. Hydroxyurea use was associated with a significant decline in TCD velocities, stroke incidence and a decreased risk of mortality.

Conclusion: Routine TCD in all children with SCD and administration of hydroxyurea for primary stroke prevention represent feasible, cost-effective interventions for primary stroke prevention in a resource-poor economy. Hydroxyurea may lower the risk of death in SCD.

070

NEU-227: Epileptic encephalopathies in children in Ibadan.

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Background: Epileptic encephalopathies are a group of severe childhood epilepsy syndromes in which persistent unremitting epileptic activity contributes to severe cognitive and behavioural impairments. This has a negative impact on the course and outcome in affected children. Few studies have described these disorders in Nigeria.

Objective: To describe the clinical presentation, profile and seizure outcomes of epileptic encephalopathy in children in Ibadan.

Methods: A prospective longitudinal study. All children with epileptic encephalopathy were enrolled based on clinical presentation and electroencephalographic findings. Follow up was for a minimum of 6 months.

Results: 30 (5.2%) of 575 children diagnosed with epilepsy had epileptic encephalopathy (EE). The median age at first seizure was 6 months and median age at diagnosis was 37 months. Age at presentation ranged from 6 months to 177 months. M:F ratio was 1:1. The leading EE syndrome was West syndrome accounting for 9 (30%) cases. Others identified were Dravet, Lindau Kleffner, Lennox Gastaut and Ohtahara syndromes.

Perinatal asphyxia was the commonest risk factor identified accounting for 12 (40%) of cases. Twenty-six (86.7%) had associated comorbidities. Five (16.6%) children in the cohort were able to achieve ≥ 12 months of seizure freedom. The remaining 25 (83.3%) had frequent seizures with multiple daily seizures in 14 (46.6%). Use of high dose prednisolone was associated with increased chances of seizure remission. 24 (80%) were on 2 or more antiepileptic drugs.

Conclusion: Paediatric encephalopathies are not uncommon in our setting and the most prevalent is West syndrome. Perinatal asphyxia is most frequent risk factor identified. Seizure control remains a major challenge in this population.

Keywords: epileptic encephalopathy, West syndrome, perinatal asphyxia, seizure control.

071

NEU-228: Paediatric EEG Services in Ibadan and the effect of The COVID Pandemic

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Background: Electroencephalography (EEG) remains the most important investigative modality in the diagnostic evaluation of children with epilepsy. Although the diagnosis of epilepsy is clinical, EEG helps to establish the diagnosis of epilepsy, distinguish epileptic seizures from other non-epileptic events, determine the site of seizure origin and the classification of epilepsy and epilepsy syndromes. The COVID pandemic however affected access to several clinical services including EEG.

Objective: To appraise the effect of the COVID pandemic on access to routine inter-ictal EEGs for children with epilepsy at the University College Hospital, Ibadan.

Methods: A cross sectional study. Interictal EEGs done from January 2018 till September 2021 were reviewed and the trends in accessing EEG services were observed.

Results: A total of 1154 paediatric EEGs were performed from January 2018 to September 2021. Ictal discharges were classified as generalised in 214 (18.5%), localisation-related in 422 (36.6%) with focal discharges in 270 (23.4%) and focal with generalisation in 152 (13.2%). The EEGs was normal in 393 (34.1%) and indeterminate in 43 (3.7%). Encephalopathic changes alone were observed in 40 (3.5%) children. Epilepsy syndromes were identified in 42 (3.6%) cases.

The study showed a progressive increase in access to EEG yearly up till November 2019. Thereafter a sharp drop in EEGs performed were noted particularly in December 2019, April to June 2020 and January to February 2021.

Conclusion: The COVID pandemic significantly impaired access to paediatric EEG services in Ibadan and innovative interventions to forestall this are needed in the event of future pandemics.

PAEDIATRIC PULMONOLOGY

072

PUL-49: Lung Function Values of children exposed to gas flaring smoke in Bayelsa State: A Cross sectional study

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Background: Gas flaring constitutes a health hazard particularly for growing children who are at risk of lung function compromise. Despite a long history of gas flaring in Nigeria, the body of evidence is sparse regarding the possible impact of gas flaring on the lung function in the affected regions.

Aim: To determine the lung function indices of children, exposed to gas flaring in Gbarian Clan and those not exposed to gas flaring in Sagbama community, both in Bayelsa State of Nigeria.

Methods: This was a cross sectional study, among children 6- 18 years. Multi-staged sampling technique was used. Inclusion criteria included children living in the community for at least one year, children older than 7 years who are gave assent, children whose parents gave consent while excluding those with anatomical disease, and chronic lung disease. Ambient air quality assessment was done.

Results: A total of 762 participants were recruited in the study, 381 each from both gas flaring area which is the subject community and the control which is non-gas flaring area. The mean lung function indices in the gas flaring community compared to the control community were: FEV1; 1.54L vs 1.65L (p<0.002), FEV1/FVC: 86.96% vs 92.77%(p<0.001), PEF: 1.54L vs 1.65L (p<0.001), FVC: 1.84L vs 1.78L (p=0.461) Air quality and suspended particulate measurement in gas flaring versus control in ug/m³ include: CO;22.90 vs <11.45, H₂S 2.79 vs < 1.39, NO: 73.29 vs <2.62.

Conclusion/Recommendation: The study shows the lung function indices in the gas flaring area compared to the non- gas flaring area were lower and air quality was lower in the subject community than the control. There is a need to stop flaring gases or convert flare to other uses. It is important for routine lung function test be done for children living in gas flaring area. Out-door ambient air quality analysis should be done at least yearly in communities where gas is flared.

073

PUL-50: Sociodemographic and Clinical Characteristics of Asthmatic Children Seen at the University of Port Harcourt Teaching Hospital, Rivers State.

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Background: Asthma is a chronic inflammatory disorder of the airway. In children, it is responsible for school absenteeism and frequent hospital visits. The GINA guideline is used to classify its severity.

Objective: This study sought to determine the sociodemographic and clinical characteristics of asthmatic children seen at the University of Port Harcourt Teaching Hospital, Rivers State.

Methods: This was a retrospective, descriptive study. Data were collected from case notes of 93 children aged

two to 18 years seen in the Paediatric Respiratory Clinic of the University of Port Harcourt Teaching Hospital, over a one-year period.

Results: Sixty-two (66.7%) of the 93 patients were males, while 31 (33.3%) were females, with mean ages of 7.75 ± 4.10 and 8.23 ± 3.9 years respectively ($t=0.529$, $p=0.598$). Forty-seven (54.7%) patients belonged to the middle socioeconomic class (SEC) and 83 (89.2%) resided in urban areas. Fifty-three (57.0%) patients have had emergency room visit(s) due to asthma. The commonest symptoms were cough (100%), fast breathing (100%) and wheeze (41.9%). There was a family history of asthma in 48 (51.6%) of patients. Intermittent asthma was the commonest {72(77.4%)} classification noted. Only 34(36.6%) patients were on inhaled corticosteroids (ICS).

Conclusion: Asthma still remains a burden. Patient education and proper use of medications are key to reducing emergency room visit(s).

074

PUL-57: Low mortality among under-five children with severe hypoxaemic community-acquired pneumonia: A 5-year retrospective analysis of 588 admissions in Ibadan, Nigeria

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Background: Community-acquired pneumonia (CAP) is the commonest cause of death among under-five years children in Nigeria.

Objective: We carried out a 5-year review of CAP cases with aim of evaluating the impact of following the PAN management guidelines on the outcome of children with severe pneumonia.

Methods: A 5-year retrospective review of severe pneumonia admissions between August 1st, 2014 and July 31st, 2019 at University College Hospital, Ibadan, Nigeria. Relevant clinical information, antibiotics use and outcome were analysed using descriptive statistics, test of association and logistic regression.

Results: There were 588 children aged two to 59 months, male: female ratio was 1.5:1. About two third were 12 months. Majority were fully immunized for age (87.2%), about 34% were malnourished and 68% were hypoxaemic at presentation. Only 71% of children were commenced on the recommended first line antibiotics following the PAN guidelines. Initial antibiotics was changed in 23.9% of the patients. The need to change iv amoxicillin plus iv gentamicin was necessary in 26.30 % compared to 18.1 % for iv cefuroxime plus iv gentamicin. Severe nutritional status [OR:2.8(95% CI:1.1 – 7.3)] and hypoxaemia [OR:2.3(95%CI:1.0 –

5.6)] were independently associated with antibiotics change. The case fatality rate (CFR) was 1.33%.

Conclusion: The low CFR suggests a better outcome compared with other previous studies. However, the high rate of antibiotics change (23.9%) was possibly due to failure of first line antibiotics, and therefore require further evaluation of their effectiveness or other associated factors. Randomised control trial of iv amoxicillin plus gentamicin versus iv cefuroxime plus gentamicin is recommended.

075

PUL-119: Acute chest syndrome with chest findings of left lobar pneumonia and pleural effusion in two sickle cell anaemia patients

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Background: Acute chest syndrome is an important and life-threatening complication of sickle cell disease characterized by fever and/or respiratory symptoms and a new pulmonary infiltrate on chest X-ray. Essential investigations for diagnosis include chest X-ray and full blood count. Treatment includes oxygen therapy, antibiotics, blood transfusion and pain relief. The case report highlights the findings of left lobar pneumonia and pleural effusion in sickle cell patients with acute chest syndrome

Cases: Case report 1: An 11year old female with sickle cell anaemia on follow-up in the Paediatric Haematology Clinic, admitted via the emergency unit with complaints of fever, cough, chest pain and difficulty in breathing. Examination findings revealed hypoxia, respiratory distress, pyrexia, severe pallor, stony dull percussion notes on the left upper, middle and lower lung zones. Chest X-ray showed a homogenous opacity in the entire left lung field obliterating the cardiophrenic and costophrenic angles indicative of a massive left pleural effusion. A thoracotomy tube was passed for drainage and she also received oxygen, analgesics, blood transfusion, intravenous antibiotics and hydroxyurea and was discharged after 15 days in stable clinical state.

Case report 2: A 6year old female, known HbSS patient admitted with complaints of cough, fever, chest pain and difficulty in breathing. Chest X-ray showed features of a left middle and lower lobe consolidation. She received oxygen, antibiotics, blood transfusion, analgesics and was discharged after 10 days

Conclusion: The clinical similarities of lung pathology in the chest findings in these patients is interesting to note. This report highlights the spectrum of chest findings that can be seen

076

PUL-127: Comparing the pattern of pneumonia in children seen at Bingham University Teaching Hospital pre- and post- COVID-19 pandemic*Shehu M¹, Ihekaike M¹**Department of Paediatrics, College of Medicine and Health Sciences, Bingham University/Teaching Hospital, Jos Plateau state, Nigeria.*

Background: Pneumonia is a common complication seen among patients hospitalized for the coronavirus 2019 (COVID 19) infection. The common symptoms of COVID 19 of fever, dry cough and shortness of breath are the same symptoms seen in children with pneumonia.

Objective: To assess the effect of COVID-19 on pattern of pneumonia in children seen in the Department of Paediatrics, Bingham University Teaching Hospital, Jos, Plateau State.

Method: We retrospectively analyzed the data of the patients seen with pneumonia in all the Paediatric units of the Bingham University Teaching Hospital from April 2019 to March 2020 and compared it with that of those seen during the COVID-19 pandemic from April 2020 to March 2021.

Result: The prevalence of pneumonia in 2019/2020 prior to the COVID 19 pandemic was 1.04% with 64.4% of the cases hospitalized. This increased by 16% in 2020/2021 to 1.20% with 61.2% of the children hospitalized. This is despite a 28% decrease in the total number of children seen in the department from 5,657 in 2019/2020 to 4,079 in 2020/2021. Complications of heart failure and anaemia in 2020/2021 were 24.5% of cases compared to 15.3% of cases in 2020/2021. Also in 2020/2021, 10.2% of those with pneumonia had suspected COVID-19 infection.

Conclusion: The prevalence and complication of pneumonia in children increased in the wake of the COVID 19 pandemic.

077

PUL-148: COVID Long-hauler syndrome in a Nigerian Child- a case report.*Oloyede IP¹, Nnoli C², Akpan IA²**Department of Paediatrics, University of Uyo, University of Uyo Teaching Hospital.**Department of Paediatrics, University of Uyo Teaching Hospital.*

Background: Post-covid long-hauler syndrome has been observed in up to half of the children who had symptomatic Covid with symptoms lasting beyond 120 days.

Case report: PEC, is an 11year old female who presented with a history of unproductive Cough 5/7, Fever 5/7 and breathing difficulty. Physical examination revealed an acutely ill, dyspneic and tachypneic child, with a respiratory rate of 42 cycles/min. She had vesicular breath sounds and few basal crepitations. Her SPO2 was 75% in room air. The Chest Xray showed wide-

spread nodular opacities. Her mantoux test was 3mm. A chest CT-scan showed diffuse in-homogenous densities with fibrocystic changes seen involving both lungs with associated areas of ground glass opacification in the upper lung bilaterally. Her COVID-19 PCR test was positive. A diagnosis of COVID-19 disease was made. She was admitted into the paediatrics ward and treated with antibiotics and intranasal oxygen. Her SPO2 remained between 85-88% on oxygen and 75-79% in room air. She became stable on the 6th day of admission and parents left against medical advice.

Four months post diagnosis the child presented with cough and breathlessness. A repeat chest x-ray showed massive lung infiltrates, multiple patchy opacities and hyperinflated lung fields. Her ESR was 30mm in the first hour. A lung function test was suggestive of severe restrictive/obstructive abnormality. The 2- dimensional echocardiography was normal. A diagnosis of Post-covid 19 interstitial lung disease was made and she was placed on amoxicillin – clavulinc acid, vitamin c, zinc gluconate and low dose prednisolone 2mg/kg for six weeks. Her response to treatment will be assessed in subsequent follow-up.

Conclusion: Post COVID long-hauler syndrome is present in children who survive COVID-19. A high index of suspicion is required to diagnose and offer the correct treatment.

078

PUL-164: Spectrum of covid-19 infection in children in southern Nigeria*Ekpenyong EE¹, Oloyede IP¹, Akpan UM², Ekanem AM³, Umoette N⁴, Peters E⁵**Department of Paediatrics, University of Uyo/ University of Uyo Teaching Hospital, Uyo, Nigeria**Department of Paediatrics, University of Uyo Teaching Hospital, Uyo, Nigeria**Department of Community Medicine, University of Uyo/ University of Uyo Teaching Hospital, Uyo, Nigeria
State Epidemiologist, Akwa Ibom State Ministry of Health, Uyo, Nigeria**Department of Internal Medicine, University of Uyo/ University of Uyo Teaching Hospital, Uyo, Nigeria*

Background: Corona virus disease 2019 (COVID-19) is a global pandemic that affects all age groups. Infected asymptomatic children can transmit the disease to vulnerable adults with co-morbidities resulting in severe disease in the latter. There are few reports of COVID-19 in children in Sub-Saharan Africa in general and in Nigeria in particular.

Objective: To determine the prevalence, symptoms and risk factors for COVID-19 in Southern Nigerian children.

Methods: This was a one-year retrospective cross-sectional study. Data of all children tested for COVID-19 between April 2020 and March 2021 was extracted from the Epidemiology unit of Akwa Ibom state ministry of health. All patient identifiers were omitted and data was analysed using STATA version 13.

Results: Two hundred and fifty-five children (2.25%) out of a total of 11,289 people were tested for COVID 19. Fifty-four children (21.2%) out of the 255 children tested were positive for COVID-19. Two hundred and fifty-four (99.6%) of children that were tested had a positive history of contact with a confirmed COVID-19 case. Five (9.3%) of COVID-19 positive children were symptomatic. The commonest symptoms seen were Fever (90.9%), Anosmia (63.6%) and Aguesia (36.4%). Increasing age (15 years and above) was significantly associated with COVID-19 positivity ($p=0.000$). In addition, the presence of symptoms was significantly associated with COVID-19 positivity ($p=0.04$).

Conclusion/Recommendation: The prevalence of COVID-19 in Nigerian children is low. Majority of the children have asymptomatic disease. Increasing age is significantly associated with COVID-19 positivity. We recommend increased COVID-19 testing in the general children population.

SOCIAL AND GENERAL PAEDIATRICS

079

SOG-11: Substance abuse among undergraduates in the university of Port Harcourt, rivers State, Nigeria

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Background: Substance abuse is the maladaptive use of drugs leading to social, legal, occupational and/or physical consequences. The effects of drugs can interfere with the ability of students to achieve their academic and social goals.

Objective: This study set out to determine the extent of use of commonly abused substances and their correlates among undergraduates in the University of Port Harcourt.

Methods: In a cross-sectional survey, using multi-stage sampling technique, undergraduates in the Social Sciences faculty of the University of Port Harcourt, Nigeria, were selected over a period of 8 weeks. A structured, self-administered questionnaire was used as instrument of data collection. Information on demographics, substance use, abuse, withdrawal and dependence were obtained.

Results: There were 352 respondents, 203 (57.7%) males and 149 (42.3%) females. 210 (59.7%) respondents were aged between 20 – 24 years while 2 (0.6%) respondents were over 35 years of age. 319 (90.6%) students had used one or more substances. 239 (74.9%) students had used alcohol, 178 (55.8%) had used coffee, 47 (14.7%) tobacco, 33(10.4%) Cannabis, 4 (1.3%) heroine. Other substances used include ecstasy and soft-drink based stimulant concoctions, (0.3% and 1.3% respectively). Of those who used substances, 78 (24.5%) met the criteria for diagnosis of substance abuse. 55 (70.5%) students who were abusing substances began their use before enrolment into the university, while 29 (37.2%) reported a significant increase in use after enrolment in the university. The reasons given for abusing

substances include- for experimentation, out of curiosity, due to emotional/ academic stress and to increase academic concentration.

Conclusion: The burden of the use and abuse of substances among undergraduates is very high. There is the need for more concerted effort by the government, the entire public and most importantly the family unit towards reducing the prevalence of substance use and abuse among undergraduates in institutions of higher learning for the purpose of achieving maximum productivity from the youths.

080

SOG-16: Pattern of adolescent substance abuse among secondary school students in Umuahia, south-eastern Nigeria

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Background: Over the years different substances of abuse have been reported from one setting to the other. The availability, accessibility and affordability of these materials determine the pattern of their abuse in these areas. Gateway substance like alcohol and tobacco were commonly reported among adolescents. However, newer substances are now being abused due to their cheaper cost and difficult detection by available drug screening methods.

Objectives: The study was done to determine the current drugs abused by adolescent students in secondary schools in Umuahia.

Method: A cross-sectional descriptive study of adolescent students in secondary schools in urban and rural communities in Umuahia. A modified WHO student drug use questionnaire and urine drug test (UDT) kits were used to ascertain the drug use status of participants. Chi-square was used to test for association between categorical variables. P-values <0.05 were considered significant.

Results: Of 400 adolescents studied, the commonest abused licit substance by self-report was coffee in 128 (32.0%) current abusers followed by kola nut in 75 (18.8%) of them. Among the illicit substances, cannabis had a prevalence of 18.8% just as the novel cocktail of a beverage and candy “Lacatomtom” in 18.8% of participants. The least self-reported substance was cocaine with a prevalence of 0.8%. UDT obtained oxycodone, cannabis, opioids and methamphetamine with oxycodone (24.8%) as the commonest and cocaine (1.5%) as the least.

Conclusion: Coffee and kolanut were the most abused licit drugs by self-report just as has been reported by Oshodi in Lagos. Cannabis and “Lacatomtom” were the most abused illicit materials. These findings were at variance with previously documented pattern in our environment.

081**SOG-20: Violence and mental health among adolescents in south east Nigeria**

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Background: There is a rise in the prevalence of mental illnesses among adolescents and the impact of violence on this rising trend requires to be evaluated. This is the aim of this study.

Methods: The study was a cross-sectional school based study. Adolescents in selected schools were interviewed using structured questionnaire. Information on the previous experience of violence, the action they took, and the effect on them were collected. Data was entered and analyzed using SPSS. Level of significance was set at p-value of <0.05.

Results: A total of 716 adolescents were involved in the study. The prevalence of violence was 87%. About 57.2% of the violence occurred at home, 44.2% done by relatives and 49.2% within the past 6 months. Sexual abuse was 10.2%. Among the adolescents that experienced violence, 58.7% suffered some form of mental illness. There was significant difference between the action the adolescents took after the violent incident and the action that was considered appropriate for it (p=0.00001). Female gender (p=0.042), not living with parents (p=0.015) and poverty (p=0.00001) significantly correlate with adolescent violence.

Conclusion: Violence is high among adolescents and associated with high prevalence of mental illnesses. Intervention to reduce violence should target improvement in poverty alleviation programs to empower families to cater for their children.

082**SOG-21: Sexual behaviour and procreation preferences of perinatally HIV- infected adolescents and young adults in Enugu, south-east Nigeria.**

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Background: Perinatally HIV infected adolescents like their peers are faced with issues related to sexuality and sexual reproductive health.

Objectives: This study is aimed at determining the sexual behaviours and procreation intention of these adolescents as well as the impact of gender and understanding of the mother to child transmission risk on their procreation intention.

Methods: A cross sectional study of perinatally HIV infected young adults accessing care at UNTH, Enugu. A questionnaire was used to obtain information on sociodemographic variables, sexual behaviour, procreation intention and knowledge of prevention of mother-to-child transmission of HIV.

Results: Seventy-one young adults were studied. Majority (95.8%) were less than 20 years of age. Mean age was 17.01 ± 1.80 years with M: F ratio of 1:1.7. Nineteen (26.8%) were sexually active with 15 (78.9%) having single partners. About 80% had their first sexual activities before the age of 18 years. Fifty-six (78.9%) received some form of sex education. Gender and socioeconomic status was significantly related to marriage and procreation intentions of respondents.

Conclusion: There's need for a sustained/ intensive education programs on sexual practices with focus on perinatally infected adolescents who may not be well informed on risk and consequences of their sexual preferences.

083**SOG-29: A case of an acquired rectovaginal fistula and faecal incontinence in a 4year old girl from sexual assault**

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Background: Child Sexual Abuse is a crime against children. It is largely underreported and commonly goes unpunished in our society.

Objectives: To highlight the management of rectovaginal fistula and faecal incontinence in a child from sexual assault.

Case report: The patient is a 4-year old girl who presented with 14 hours history fecal incontinence and leakage of faeces from the vagina. The child suddenly developed fecal incontinence, walking with difficulty, perineal pain associated with rectal bleeding. There was no preceding history of fall, when questioned by the mother, the child said that their landlord's son forced his penis into her anus and inserted his fingers through her vagina. Vaginal examination revealed hymenal avulsion with redundant hymen on the left, minor laceration and excoriation on the right lateral wall and floor of the vagina, with mild bleeding. Perianal examination revealed perianal fecal soilage, patulous anal, torn anal sphincter and tear at 6 o'clock, extending exteriorly to the right measuring 1 cm long and 1.5cm deep with a rectovaginal fistula. Results of urine MCS revealed wbc 2+, leucocytes 2+, epithelial cells+, staphylococcus aureus was isolated.

Diagnosis: Genital injuries with third degree perineal lesion from sexual assault.

The child was given antibiotics, analgesics and sitz bath. She had a repair of genital injuries (Vaginoplasty, Sphincteroplasty and repair of perianal tear). She responded well with good wound healing and was discharged after 20 days with follow-up at the Paediatric out-patient unit.

Conclusion: Sexual assault can result in devastating injuries in children.

084

SOG-41: Suicidal thoughts among in-school adolescents in Sokoto, north- western Nigeria

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Background: Globally, suicidal Ideation is on the rise among children and adolescents. The objectives were to assess suicidal thoughts among in-school adolescents in Sokoto metropolis, associated factors, and the independent predictors of suicidal thoughts among the affected respondents.

Methods: A cross sectional survey of secondary school students in Sokoto metropolis selected through multi-stage random sampling, using the Ask suicide-screening tool. Data was analysed using Statistical package for social sciences (SPSS) version 25.

Results: Respondents consisted of 312(53.8%) males and 268(46.2%) females, with male to female ratio 1.2:1. Their ages ranged between 10 and 19 years with mean (\pm SD) of 15 ± 2.6 years. Most (62.1%) of the subjects attended public schools, their parents were mainly Hausa by tribe (79.7%), traders, (33.1%), graduates (37.6%), married (96%), and majority (44.7%) belonged to the middle socio-economic class. Eighty-three (14.3%) of the 580 subjects had recent suicidal thoughts.

Logistic regression analysis showed that age category 15 -17 years ($p=0.022$), male gender ($p=0.040$), academic pressure ($p<0.001$), somatic symptoms ($p<0.001$), emotional stress ($p<0.001$), poor self-concept ($p<0.001$), feeling of sadness ($p<0.001$), parent factor ($p<0.001$), self-rated poor academic performance ($p<0.001$), and bullying ($p=0.004$), were independent predictors of suicidal thoughts.

Conclusions: Suicidal thoughts were high among the respondents and multiple demographic and psychosocial factors were independently associated with it.

Keywords: Suicidal thoughts, Adolescents, In-School, Sokoto, Nigeria

085

SOG-53: Prevalence and correlates of post-traumatic stress disorder among internally displaced and non-displaced adolescents in Maiduguri, Borno state.

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Background: Post-traumatic stress disorder (PTSD) is among the commonest psychological disorders reported after exposure to armed conflicts and other high-magnitude stressors, and could have significant negative effect on the individual and the society. The insurgency in north-eastern Nigeria has resulted in the displacement of many communities and exposed children and adolescents to various traumatic events.

Objective: To assess the prevalence and correlates of PTSD among internally displaced and non-displaced adolescents in Maiduguri, Borno State.

Methods: A comparative cross-sectional study was conducted among 253 displaced adolescents living in camps for the internally displaced persons (IDPs) and 253 non-displaced adolescents attending secondary schools in Maiduguri using multi-stage sampling. Stressful life events (SLE) and Reaction of Adolescents to Traumatic Stress (RATS) instruments were used in screening subjects for PTSD, while definitive diagnosis was made with the Kiddie Schedule for Affective Disorders and Schizophrenia Present and Lifetime Version (K-SADS-PL). Multiple logistic regression models were used to estimate odds ratios (ORs) and 95% confidence intervals (CIs) comparing the odds of PTSD among levels of covariates.

Results: The prevalence of PTSD was 19.3% and 15.5% among the non-displaced and the displaced adolescents respectively. Exposure to more than 6 traumatic events (OR=5.47, CI: 2.60-11.49) was identified as an independent predictor of PTSD among the non-displaced adolescents. Older age (OR=3.64, CI: 1.15-11.52) and not living with parents (OR=11.51, CI: 2.43 - 54.46) were identified as independent predictors of PTSD among displaced adolescents.

Conclusion: Post-traumatic stress disorder is common

among both the internally displaced and non-displaced adolescents, particularly the younger ones, and may be driven by poor parental support. Early identification of PTSD through mass screening and its management is cost-effective for the community and will improve the mental health, social and academic performance of these adolescents as well as their future. There is a need for further research to identify other factors related to PTSD among adolescents in Maiduguri.

Keywords: Post-traumatic stress disorder, internally-displaced, adolescents, insurgency, Maiduguri

086

SOG-54: Teenage organophosphate insecticide poisoning: an ugly trend in Enugu, Nigeria

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Background: Organophosphate poisoning is still a major problem in developing countries owing to indiscriminate use of these compounds in households. The risk of poisoning is worsened by uncontrolled sale of organophosphorus insecticides on the streets and in open markets. We report three cases of organophosphate compound poisoning among adolescents with suicidal intent.

Methods: We reviewed the hospital admission case records of three cases of organophosphate poisoning among adolescents managed at the children emergency room of University of Nigeria Teaching Hospital, Ituku Ozalla, Enugu, South-East Nigeria. Relevant information on the clinical characteristics of the patients, investigations and treatment, and outcome of treatment were obtained.

Results: The events of poisoning were preceded by strained family relationship in two of the cases while failure in a promotional examination preceded the incident in one of them. Atropine monotherapy in addition to airway management and oxygen support successfully reversed the symptoms and signs in 2 of the 3 cases. One died within 18 hours of admission from cardio-respiratory depression. Mean duration of admission in patients that survived was 48 hours.

Conclusions: This report highlights the ugly trend of suicidal ideation among adolescents and the challenges of management of organophosphate poisoning in our setting. It serves as a wake-up call to Nigerian parents and healthcare providers on the increased risk of indiscriminate use of organophosphorus compounds as insecticides in the homes.

087

SOG-60: A survey on the impact of COVID-19 pandemic on vaccine confidence

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Background: The positive impact of vaccine on the health of the world's people is beyond exaggeration. An estimate of 6 million deaths prevented annually through this public intervention. Confidence in vaccines was identified to be affected by trust in its importance, the safety of the vaccine, its effectiveness and compatibility with religious beliefs. Ensuring public confidence is critical for any vaccine uptake, therefore the researchers' decision to explore the impact of the SARS-CoV-2 pandemic on confidence of the study cohort on vaccines.

Methods: A self-administered 39-item semi-structured questionnaire was used in assessing the effect of the COVID-19 pandemic on the vaccine confidence of 431 study participants in six countries in Africa, Europe and North America. Results were analysed using SPSS version 25.

Results: Majority (283, 66%) of the respondents were non-health care workers. Majority of the study participants believed that vaccines were safe (91.6%) and important (93%) A few (6.7%, 29) had never vaccinated their children. Most of the participants had their confidence in vaccines unaffected by the COVID pandemic (177, 41.1%), 14.8 % (64) stated that their confidence in vaccines had reduced with the advent of COVID -19 pandemic while 39.2 % (169) had increased their confidence in vaccines with the onset of the pandemic. The rest (21, 4.9%) were undecided.

The number of those who believed vaccines were important (401,93%) further dropped by 13% following the onset of the pandemic, however this reduction was more marked among those who were not sure about the importance of vaccines (83.3%,) and those who thought vaccines were not important (75.5%). (P=0.00)

An increased confidence in vaccine was expressed by 35 (27.9%) of the health workers and 126(44.5%) of the non- health workers while a decrease in vaccine confidence was noted from 10(7.9%), and 52(18.4%) of the health care providers and the non-health care providers respectively. Vaccine confidence remained unchanged 74(58.3%) for health workers and 96(33.9%) non-health workers. The others (17, 4.1%) were undecided

Conclusion: The COVID-19 pandemic has affected the confidence of the study participants on vaccines. The change in vaccine confidence was more on towards increased confidence in vaccines. This increased confidence in vaccines was observed more among the non-health workers.

088

SOG-85: Bullying behaviour: experience in secondary schools in Obio akpor local government area in rivers state.*Gabriel JN¹, Azubogu U²**Department of Paediatrics, University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt*

Background: Bullying is antisocial behaviour with negative physical and psychological effects on both the victim and the perpetrator.

Objective: The aim of the study was to determine the bullying experience among secondary school students in Obio Akpor Local Government Area of Rivers State.

Method: A cross sectional study was conducted among 1860 participants aged 10-19 years. Bullying behavior was assessed using a modification of the Olweus Bully/Victim questionnaire. Descriptive statistics was carried out. T-test and Chi square test were used for comparison of means and test of significance respectively. Statistical significance was set at a p-value<0.05.

Results: The mean age of the study participants was 14.25±1.85 years and the male to female ratio was 1.1:1. Nearly all of the students (98.9%) had heard of bullying. Furthermore, 56.6% of participants were victims of bullying, 32.4% were perpetrators and 11.0% were neither victims nor perpetrators of bullying. The most common bullying behaviours known to the students were: physical assaults (19.6%) and "taking things forcefully from others" (19.3%). Factors significantly associated with perpetration of bullying behavior include: male gender, age >14 years, low socioeconomic status and belonging to the senior school section. The most common negative effects of bullying among the victims included: low self-esteem (24.5%), anxiety (21.0%) and poor academic performance (15.5%).

Conclusion: Bullying behavior remains a significant social problem among secondary school students in our society. It has deleterious physical and psychological effects on both the victim and the perpetrator. Greater efforts are required from all stakeholders to eliminate this negative trend.

Keywords: Bullying, Secondary schools, Obio Akpor

089

SOG-91: Violated twice- an adolescent's experience*Borokini A², Fagbohun A^{1,2}, Ogunbosi B^{1,2}
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Background: The increasing trend of sexual violence in adolescents has become a clinical and public health problem worldwide. This trend has also been documented in developing nations such as Nigeria but is still largely unreported.

Case report: We present the case of an 11-year-old female adolescent who was seen at the emergency unit

following a one-day history of sexual assault. The assailant was the victim's next-door neighbour. However, there was a prior 6-month history of assault by another neighbour which was unreported due to the perpetrator's death threats. The history of previous abuse was only revealed after the second incident. Significant examination findings were whitish vaginal discharge and a broken hymen. Pregnancy test, Hepatitis B surface antigen as well as serial retroviral screens were negative. She was given emergency contraception and antibiotic prophylaxis against sexually transmitted infections. Her parents initially commenced prosecution of both assailants but eventually dropped charges after threats by the assailants' relatives. She is still being followed up in the adolescent clinic by the paediatrician and psychiatrist as her school performance has declined and she has become withdrawn on account of the incidents.

Conclusion: This case demonstrates the menace of adolescent sexual abuse and its attendant consequences. It also highlights the problem of under-reporting by victims and the deficiencies in prosecution of perpetrators.

090

SOG-92: 'Let me end it all'- bullying and attempted suicide in an adolescent*Thomas O², Ologunore O², Ude I², Bayo A²
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Background: In recent years, there has been a rise in global attention to bullying as a major public health concern. Although studies in the developed world have found a link between bullying and suicide, this association has not been clearly articulated in developing countries.

Case Report: We present the case of a 14-year-old female adolescent who was seen at the Emergency Department after a one-day history of deliberate ingestion of Izal TM (Saponated Cresol) in a bid to commit suicide due to ongoing bullying at school and frequent altercations with her mother at home. Prior to this, the patient had been experiencing melancholy, despondency, insomnia, and loss of appetite. She was ridiculed because of her naturally curly and thick hair and was constantly referred to as 'Medusa' (a creature in Greek mythology with snakes on her head instead of hair). She said, 'I was tired of the name-calling and wanted to end it all'. There was no history of chronic illness. There was a two-year prior history of suicide ideation, which was dismissed following a conversation with a friend. After drinking the concoction, she was given palm oil, which caused three episodes of vomiting and abdominal pain. The examination and investigations yielded normal results. A deliberate self-harm diagnosis was made. She was reviewed by the adolescent paediatrician, psychiatrist, and social worker.

Conclusion: This case demonstrates how bullying can lead to suicidal ideation and attempts. In regular prac-

tise, paediatricians must have a heightened index of suspicion for the dangers of bullying.

091

SOG-110: The challenges reported by caregivers of children with disability attending a special school in Abakaliki, Ebonyi state

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Background: Parenting is an enormous task which is even more complicated when it involves a child with special needs or disability. Caregivers of children with disability are prone to more emotional, physical, psychological, financial stress and stigmatization. Some also experience feelings of guilt and loss of hope for the child. This study aimed at identifying challenges and feelings reported by caregivers of children with disability attending a special school in a resource-poor area.

Method: A cross-sectional survey of the needs and feelings of 40 caregivers of children with disability was carried out. Likert scale graded questions were used to obtain quantitative data on the physical, social and emotional challenges they experience, and analyzed using simple frequencies and chi square, with $p < 0.05$. Qualitative data were collected using oral open ended questions and thematic content analysis was used for the results.

Results: A total of 40 adults participated in the study. Males constituted 30% (12/40) whereas females constituted 70% (28/40). The commonest challenges faced by caregivers of children with disability include increased financial burden (80.0%), fear about their child's future (75.0%) and increased physical exhaustion (62.5%). Caregivers feeling of loss of hope and dreams for their child, caregivers feeling sad/depressed on their child's condition were significantly related to income and gender respectively ($P < 0.05$).

Conclusion: Caregivers of children with disability need financial and emotional support. Concerned institutions and associations need to join in advocacy for their relief and support for better care of the affected child.

Keywords: Disability, Challenges, Caregivers, special needs

092

SOG-134: Some rare dysmorphic cases seen in children in Delta State University Teaching Hospital

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Background: Dysmorphology is the study of dysmorphic features, their origins and proper nomenclature. The problems associated with rare dysmorphology are many and affect both the patient and the parents. Due to the fact that they are rare, reporting of dysmorphic cases presents an opportunity to create awareness and share experience from medical management.

Objectives: To present some rare dysmorphic cases seen in the department of Paediatrics in DELSUTH.

Methods: A review of dysmorphic cases seen in the department of Paediatrics from 1st September, 2019 to 31st August, 2021. The data extracted from the files and patients included; age, sex, presenting complaint, pictures and outcome thus far.

Results: Dysmorphic cases seen included; syringomyelia (mermaid syndrome), absent manubrium, Carpenter syndrome, vascular malformations and dextrocardia.

Conclusion: Dysmorphic cases require multidisciplinary approach and psychosocial support to manage.

093

SOG-135: Evaluation of the health related quality of life and its associations in children living with HIV attending Lagos University Teaching Hospital

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Background: The introduction of antiretroviral therapy (ART) has significantly increased the life expectancy of children living with HIV (CLHIV). Hence, health outcomes of interest are no longer limited to survival but now should also include quality of life (QOL).

Objective: The aim of the study was to determine the HRQOL in CLHIV, its associations and to compare with healthy controls. In addition, it aimed to determine if parent/caregiver's assessment of the child's HRQOL could be relied upon.

Methods: It was a descriptive cross-sectional study. 100 CLHIV and 100 controls (children without HIV) matched for age, sex and socio-economic class were studied. The parents/caregivers were also studied. The HRQOL was determined using the Paediatric Quality of life inventory version 4.0.

Results: Children living with HIV reported lower HRQOL scores than controls (84.79 ± 13.43 v 91.62 ± 8.11 ; p value < 0.001). Similarly, parents/caregivers of CLHIV reported much lower child's HRQOL scores than those of controls (86.58 ± 14.52 v 94.73 ± 6.65 ; p value < 0.001). The school functioning domain had the lowest scores for CLHIV (75.79 ± 15.52)

while the social domain had the highest scores (91.10±15.61). For all the domains, CLHIV had significantly lower HRQOL scores than controls. There was a positive and modest correlation between the child-reported HRQOL score and parent-reported HRQOL score among CLHIV ($r=0.60$ $p=0.001$).

Conclusion: Children living with HIV enjoy lower HRQOL than the general population of children, and the school functioning was the most affected. Interventions including scheduling clinics during holidays or weekends may positively impact on the HRQOL of CLHIV. In addition, where the children's assessment of their HRQOL is not feasible, the parent/caregiver's assessment of the child's HRQOL could be relied upon.

094

SOG-138: Sexual abuse and forced use of contraceptives in an orphan adolescent; a trigger for systemic lupus erythematosus (SLE): A case report.

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Background: SLE is a chronic autoimmune disease characterized by multisystem inflammation and presence of circulating autoantibodies directed against self-antigens. SLE predominantly affects females, especially those of reproductive age and compared to adults, children and adolescents with SLE have a more severe disease with widespread organ involvement. Use of hormonal contraceptives and pregnancy are established causes of flares in patients with SLE. Sexual abuse and childhood trauma have also been established as risk factors for SLE in young women. Prominent symptoms in children/adolescents include fever, fatigue, and arthritis, renal and haematological abnormalities.

Case report: A 17 year old, female referred to University of Uyo Teaching Hospital (UUTH) from a general hospital with inflammatory polyarthritis of three months, and body rash of two months duration. She is an orphan and had history of repeated sexual abuse from last care-giver with use of contraceptives prior to onset of symptoms. On presentation she was febrile, moderately pale, dyspnoeic with bilateral leg swelling to the knee. She also had a rash on the thighs and abdomen and mouth sores. She met the 2019 EULAE/ACR classification criteria for SLE and both anti-nuclear antibody and anti-double stranded DNA were positive. She received prednisolone, antibiotics, antihypertensive and multivitamins with remarkable improvement in clinical state and was subsequently discharged.

Conclusion: History of use of hormonal contraceptives and sexual/ physical abuse are very significant in evaluation of adolescents with SLE.

095

SOG-143: Street hawking among children: a form of child abuse often overlooked

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Background: Despite efforts by the government to ensure that child labour is eradicated, children are still exposed to the menace of this abuse and other forms of abuse. This paper examined street hawking among children in Obio/Akpor L.G.A in Rivers State.

Methods: This descriptive cross-sectional study used a purposive sampling method. 109 participants aged 10 - 17 years who hawked around two busy junctions in Obio/Akpor L.G.A were recruited for the study. An interviewer-administered questioner was used for data collection. Analysis was done with SPSS version 25

Results: Participants comprised 109 child street hawkers, 67 (61.5%) female, 42 (38.5%) males. 72 (66.1%) of the participants lived with their parents, and more than half of their parents were traders.

The reasons for hawking included augmenting family income, losing a parent, and being forced by a guardian to hawk. 104 (95.4%) of the children reported that they did not like to hawk. 33 (30.3%) of the child street hawkers were school dropouts, more females 27 (40.3 %) were school dropouts compared to their male counterparts 6 (14.3 %). This sex difference was statistically significant ($\chi^2= 8.27$, $p= 0.004$). Problems encountered while hawking included: accidents, loss of money and goods, exposure to harsh weather, low self-esteem and sexual advances.

Conclusion: Street hawking among children is common despite its negative effects on children. Education of the masses on the dangers of this menace is needed as well as measures to alleviate poverty among the populace.

Keywords: Street, Hawking, Children, Abuse

096

SOG-149: Risk of covid-19 infection among frontline and non-frontline healthcare workers: a retrospective observational cohort study in Jos, north-central Nigeria

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Background: Frontline healthcare workers (FHCWs) in the line of duty are at risk of acute respiratory coronavi-

rus-2 (SARS CoV-2) infections.

Objectives: To quantify the risk of SARS CoV-2 infections among FHCWs and non-FHCWs.

Methods: A retrospective cohort study of FHCWs and non-FHCWs in Jos University Teaching Hospital between 17th April, 2020 and 17th September, 2020. A total of 51 FHCWs was determined by census. An equivalent number of non-FHCWs were selected from the list of clinical staff (sample frame) using simple random sampling technique by balloting. Positive RT-PCR for SARS CoV-2 and relative risk were the study outcomes. SPSS version 23.0 was used for analysis. Mean±SD, frequency and proportions were used as summary indices. Relative risk and 95% CI as point and interval estimate respectively. P-value 0.05 was deemed statistically significant.

Results: A total of 98 study participants had complete questionnaires: - 49(50.0%) FHCWs and 49 (50.0%) non-FHCWs. Mean age of participants was 40.5±8.5 years. Majority 68.0% were nurses, 46 (47.4%) had 10 - 19 years of work experience. RT-PCR COVID-19 tests were done in 65 (67%) participants;-18(18.6%) were positive: 5 (27%) among FHCWs and 13 (72.2%) non-FHCWs, The relative risk of contracting COVID-19 infection among FHCWs was reduced by 32.7% compared to the non-FHCWs, (RR = 0.673; 95% CI = 0.224 - 2.027; P = 0.482).

Conclusions: FHCWs had 32.7% reduced risk of COVID-19 infection compared to the non-FHCWs in Jos. COVID-19 prevention intervention should equally focus on the non-FHCWs. Further prospective studies are needed to investigate the risk specific route of disease transmission.

Key words: COVID-19, relative risk, frontline-Healthcare workers, cohort study, SARS CoV-2

097

SOG-171: Children's knowledge of COVID-19 and stress levels associated with the pandemic in Nigeria: a mixed method study

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Background: The effects of the COVID-19 pandemic and its control measures worldwide have been wide reaching. The pandemic disproportionately affected the health and wellbeing of children and young people in low-income countries and studies from other African countries have highlighted the effects of financial strain,

disrupted education and social instability on children.

Method: This cross sectional observational mixed methods study set out to evaluate stress levels in children in Calabar, Cross River State due to the Covid-19 pandemic and their knowledge using the perceived stress scale for children (PSS-C); range of scores 0-39. Knowledge and preventive practices were respectively assessed using a four question scale based on valid information disseminated in the media. Quantitative assessment was done on free text responses provided by children in response to their stressors and coping mechanisms.

Results: A total of 265 children aged 6-17 years were recruited via online google forms using snowballing and school recruitment via stratified sampling. The mean age was 12.47 years and median age, 13. The modal age was 10. Majority of the respondents were Christian (99%) and 58.8% of Efik tribe. All respondents had knowledge of the existence of covid with Television 161 (60.8%) the major source of information, followed by parents 117(44.2%). Social media and radio were least with multiple sources of information identified. Ninety-six children (36.2%) had complete knowledge of covid transmission with a score of 4 while 28(10.6%) had the least score of 1. One hundred and twenty-seven respondents (47.9%) children had complete score of practice of preventive measures. The lowest score was in 12 children (4.5%). The overall mean PSS-C stress score amongst the children was 'high' at 20.47 with an SD of 5.109; and range of 3 - 33. Younger age and schooling method significantly correlated with level of stress in children (p= 0.02) but no association was found with gender (p=0.953), socioeconomic class (p=0.349), preventive measures (p=0.380) or covid knowledge (p=0.277).

Qualitative analysis showed schooling disruptions, riots and protests as well as covid-19 preventive measures as a cause of unhappiness in the children. Words suggestive of impending doom and reports of home-based violence were also identified while parents played a significant supportive role in coping mechanisms.

098

SOG-179: Health-related quality of life of HIV infected children in Uyo, Akwa Ibom State.

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Background: HIV-infected children are now surviving into adolescence and adulthood due to the effectiveness of highly active antiretroviral therapy (HAART) but they have to cope with living with a chronic disease. Health-related quality of life (HRQoL) has been shown to be an invaluable tool in assessing health outcome in chronic health conditions including HIV/AIDs. Little is known about HRQoL of HIV-infected children in both developing and developed countries.

Objective: This study aimed at assessing the HRQoL of Nigerian children with HIV infection and compares it with that of Healthy children

Methods: A cross sectional study of 211 HIV-infected children aged 2-15 years and 211 age, sex and social class matched HIV uninfected children with their caregivers was conducted. A generic version of the Paediatric Quality of Life (PedQL4.0) scale was used to assess their HRQoL. **RESULTS** From both self and proxy reports, there was no significant difference in mean total HRQoL score of HIV infected children and that of HIV uninfected children.

Conclusion: HRQoL of HIV infected children in Uyo was good and comparable to that of uninfected children. Assessment of HRQoL should be incorporated into routine antiretroviral therapy ART programmes as a measure of outcome of Disease management. This will further help to identify needs and direct interventions for holistic care of these vulnerable children.

099

SOG-194: Camel bite in an 11 year old child: A case report from north western Nigeria

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Background: Globally, animal bites are a major source of morbidity and mortality. On the other hand, camel bites are relatively rare in the medical literature. Whenever such bites occur, adults are mainly affected. Cases are exceedingly rare in children. We report a case of a camel bite in a male child

Case report: The patient was an 11-year-old boy who presented to the Emergency Department of our facility 10 hour after being bitten on his cheeks by a camel. The injury occurred while the patient was trying to feed the camel which strongly gripped the patient's face between its jaws and lifted him up in the air while shaking and throwing him forcefully to the ground. The child sustained multiple facial injuries, including lacerations, and bilateral mandibular fracture. He was co-managed with maxillofacial surgical team. He had fixation of the fracture and wound care. He did well and was discharged home after a total 19 days of admission.

Conclusion: Camels are a potential cause of serious injuries and may pose a public health problem for children in this part of the country. Efforts should be made to prevent such injuries which have a potential of being infected with tetanus and rabies in addition to disrupting school attendance. Public education about the proper and compassionate handling of domestic animals should be carried out.

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SOG-197: Child rights instruments and the challenges of implementation; a survey of opinions and practices among Nigerian-trained doctors and nurses

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Background: Children's safety can only be guaranteed if child rights are recognized and respected. Implementation of child rights instruments is often limited by leadership, culture and religion. After 18 years of Nigeria's Child Rights Act, only 25 of the 36 states of the Federation have domesticated the document. Regardless, a 'safe world' is still far-fetched for the Nigerian child.

Objective: This study examined the knowledge, opinions and practices of Nigerian-trained nurses and doctors in the context of child rights instruments.

Method: In this descriptive cross-sectional study, a structured online questionnaire was administered to respondents, home and abroad. Participants were recruited through nonprobability sampling technique.

Results: Of the 509 respondents, doctors accounted for 72.9%, and nurses, 27.1%. Over half were females, and majority of respondents were married. Knowledge of child definition was average among doctors, but inadequate among nurses. Knowledge of marriageable age and consent for sexual intercourse was inadequate among both groups. Nurses were better informed about Nigeria's policy on children's reproductive health. Both groups were not aware of Nigeria's minimum age of criminal responsibility. Both groups had insufficient knowledge about employment, physical punishment, female circumcision, and legitimacy. Respondents' knowledge about existence of child adoption law in Nigeria was adequate. They had positive perception about most child rights provisions, except for physical punishment, rebuke, and family court. Most of respondents' practices conform to child rights instruments, except for physical punishment and rebuke. Socio-demographics had impact on knowledge, perception and practice regarding child rights.

Conclusions: Knowledge of child rights among Nigerian-trained doctors and nurses is poor. Socio-demographics influence health workers' perception and practices regarding child rights.

101**SOG-229: Paediatric flame burn injuries from adulterated kerosene explosion – A public health alert from Uyo**

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Background: Childhood burns injuries remain an important cause of morbidity and mortality in Nigeria. Scald injuries had previously been noted to be the predominant aetiological factor. Burns from kerosene explosions were virtually absent from early epidemiologic studies on burns in Nigeria but have been on a steady rise in the last few years mirroring the rise in kerosene costs.

Objective: This study aims to highlight the rising incidence of burns from adulterated kerosene explosions among children in Uyo.

Methods: This was a retrospective study of children aged 3 months – 17 years admitted with burn injuries to the University of Uyo Teaching Hospital over the three-year period between November 2018 and October 2021. The demographic characteristics, aetiological factors, and treatment outcomes were documented using Microsoft Excel. Data was analysed using IBM SPSS version 25.

Results: Sixty-seven cases of paediatric burn injuries were recorded in the period under review accounting for 2.7% of all paediatric emergency admissions. Fifty-nine case records were available for review. Flame burn injuries accounted for 71% of all burn injuries. Kerosene explosions accounted for about 90% of all flame injuries and 64% of all burn injuries. Mortality rate was significantly higher in burns from kerosene explosion burns ($P = 0.04$). Kerosene was mostly purchased from neighbourhood sellers.

Conclusion: Flame burn injuries from kerosene explosion have become increasingly prevalent in our society. Factors involved include adulteration of kerosene by sellers with the now cheaper petrol to increase profits, poverty and child neglect. Legislation to punish offenders responsible for adulterating petroleum products and enforcing the child rights act is recommended.

102**SOG-230: 40 years of the international code of marketing of breastmilk substitutes: The paediatrician's roles in code compliance and enforcement**

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Background: On May 21st, 1981, the 34th World Health Assembly adopted the International Code of Marketing of Breastmilk Substitutes. Its implementation has remained poor as a result of aggressive marketing and promotion of Breastmilk substitutes which threatens

optimal infant and young child feeding (IYCF) practices and contributes to 149.2 million (22%) children being stunted globally and malnutrition's 50% contribution to Nigerian Under-five deaths. The paper reiterates the roles of paediatricians as health workers in Code implementation.

Methods: Data were obtained from the Code and subsequent WHA Resolutions, the Global Report on Code Violations and 2021 Code implementation status Report. **Results:** Although the Code and Subsequent WHA resolutions are explicit on the essential roles of health workers in the promotion, protection and support of optimal IYCF practices, BMS manufacturers continue to undermine it through:

Sponsorship of meetings of health professionals and scientific groups; Provision or acceptance of free products, samples or reduced-price foods and other gifts for infants or young children to families through health workers or health facilities; Donation, acceptance or distribution of equipment or services to health facilities; Gifts or incentives to health care staff; use of health facilities to host events, contests or campaigns; provision of education in health facilities by companies, directly or indirectly to parents and other caregivers on IYCF; provision of any information for health workers other than that which is scientific and factual

Conclusion: To achieve the nutrition related SDG targets, paediatricians should implement and enforce the Code.

103**SOG-235: A pre-COVID-19 assessment of aspects of the school health programme in some selected Nigerian primary schools: Implications for school re-opening during the COVID-19 pandemic in developing country contexts**

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Background: Following the COVID-19 pandemic, school closures were part of the global public health response to limit community spread of the virus. In recent times, there has been an emphasis on safe school re-opening. This concept is likely to differ between developed and developing country settings. There are no published studies on barriers hindering safe school re-opening within developing country contexts. This study evaluates aspects of the school health program (SHP) in some selected Nigerian schools that might relate to the pandemic control during school re-opening.

Methods: In 2017, we conducted a cross-sectional sur-

vey of the SHP of 146 registered primary schools in Gwagwalada Area Council in Abuja, Nigeria. These schools provided services to about 54,562 students. We used direct observational methods and interviewer-administered questionnaires to assess the SHP of each school. We compare SHP characteristics that might relate to COVID-19 control in schools across government-owned (public) and privately-owned (private) schools using a pre-defined framework.

Results: Public school to pupil ratios was more than six times that of private schools. Only 6.9% of all surveyed schools employed qualified health personnel. Although 8 in every 10 schools conducted health talks for communicable disease control, the use of temporary isolation and school-based immunization were low at 1.4 and 2.7% respectively. Pipe-borne water access was present in 4 of 10 schools, with public schools having more limited access than private schools ($p = 0.009$). Similarly, less proportion of public schools had access to soap for hand washing ($p < 0.001$). Adequate classroom ventilation was present in 63% of surveyed schools, with private schools having more limited ventilation ($p < 0.001$). **Conclusions:** Overcrowding and infrastructural deficits within developing country contexts represent barriers to safe school re-opening during the COVID-19 pandemic. In these settings, there needs to be tailored and innovative strategies which consider local practical realities when designing the COVID-19 control programs during school re-opening

POSTERS

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PCAR-1: A report of dextrocardia in delta state university teaching hospital

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Background: Dextrocardia is a rare cardiac presentation with variable intra cardiac lesions. Due to its abnormal position and associations, dextrocardia presents both diagnostic and treatment challenges to the managing team.

Objective: To report a case of dextrocardia seen in a 5 year old girl in Delta State University Teaching Hospital, Oghara.

Method: A review of a case of dextrocardia seen in a 5 year old girl in Delta State University Teaching Hospital. Sources of data included patient's hospital folder, chest radiograph, ECG and echocardiogram.

Results: VE was a 5 year old girl who developed easy fatigueability and squatting on physical activity at 1 year of age. Subsequently was noticed to be failing to thrive with bluish discolouration of the tongue. Important findings on examination included; small for age, cyanosis, digital clubbing and apex beat on the right. Chest radiograph revealed dextrocardia and echocardiogram revealed dextrocardia with features of overriding aorta, subaortic VSD and pulmonary stenosis.

Conclusion: Dextrocardia is a rare congenital heart disease with diagnostic challenges.

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PCAR-2: Presentation and outcome of children diagnosed with cardiomyopathies in Usmanu Danfodiyo University teaching hospital, Sokoto

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Background: Cardiomyopathies are myocardial disorders in which the heart muscle is structurally and functionally abnormal, thereby affecting the ventricular systolic function, diastolic function, or both. Comprehensive approach to management warrants recognizing the clinical profile in order to strategize to improve outcomes.

Objective: The aim was to evaluate the types of cardiomyopathies, presentation and outcome among children admitted into a tertiary hospital in Sokoto

Methods: A hospital based prospective study of children aged below 15 years who were seen over an eight-year period. A proforma was used to collect the information on their socio-demographics, type of cardiomyopathy, associated presentations and outcome. Data was analysed using IBM SPSS version 25.

Results: 58 out of 247 (23.5%) were diagnosed with Cardiomyopathy. They comprised 31 (53.4%) males and 27 (46.6%) females with a male to female ratio of 1.14:1. Their age ranged from 1 month to 15 years with mean of 6.4 ± 4.0 years. Dilated cardiomyopathy was the commonest in 54 (93.1%) of the cases while restrictive cardiomyopathy (endomyocardial fibrosis) was seen in 4 patients (5.2%) and hypertrophic cardiomyopathy in 1 case (1.7%). Associated problems observed in some patients with DCM were severe hypertension, congenital heart disease (CHD), diphtheria and acquired heart disease in siblings of 2 patients. One of the cases of restrictive cardiomyopathy also had CHD. Thirty-four (58.6%) of the patients were lost to follow-up.

Conclusions: Dilated cardiomyopathy is the commonest cardiomyopathy seen among children in Sokoto, North-west Nigeria. Complete cardiovascular assessment is necessary to diagnose associated problems early to reduce morbidity and mortality. Innovative ways to support patients and improve follow up is necessary.

Keywords: Presentation, outcome, cardiomyopathy, Sokoto

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PDER-1: Thanatophoric dysplasia: a report of 2 cases from Barau Dikko Teaching Hospital (BDTH) and review of the literature.

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Background: Thanatophoric dysplasia is a rare but uniformly lethal inherited disorder of the skeletal system resulting from defects in Fibroblast Growth Factor Re-

ceptor -3 gene on the short arm of Chromosome #4. It is characterised by pronounced shortening of the tubular bones resulting in significant short stature; Macrocephaly, funnel-shaped chest, protuberant abdomen, redundant skin and typical facie among others. The two clinical types of TD are differentiated by classical cranial and tubular bone configurations. The diagnosis may be missed because of phenotypic similarity to the more common Achondroplasia.

Case Report: We present 2 cases of TD seen at BDTH between January and August 2021 to highlight the diagnostic features and extreme fatality of this condition. Both presented with characteristic features of type 1 TD, were asphyxiated at birth and died within 24 hours of life

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PDER-2: Giant congenital melanocytic nevus in a new born infant: A case report and review of literature

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Background: Giant congenital melanocytic nevus (GCMN) is a rare pigmentary condition occurring in <1 in 20,000 births. The lesions constitute a significant cause of psychological distress for affected children and their families due to social stigma associated with the condition. GCMN may also be associated with leptomeningeal melanocytosis and development of malignant melanoma. Early identification and follow up is therefore important in affected children to limit morbidity and mortality.

Objective: The aim of this is to report a case of GCMN in a female infant and highlight the challenges encountered in her management.

Case Report: A one week old female infant presented with a large hyperpigmented patch of skin involving the buttocks and trunk and appearing in a “bathing trunk” distribution. Multiple satellite melanocytic nevi were scattered on the upper and lower limbs. The lesion on the posterior trunk had multiple nodules of varying sizes. Neurological examination findings were essentially normal. She was followed up in the Paediatric Dermatology and Plastic surgery clinics. Parents were financially constrained hence patient could not undergo the requested brain Magnetic Resonance Imaging (MRI). Over the first six months of life, she was noted to develop a progressive increase in the size of one of the nodules on the trunk for which is being worked up for an excision biopsy. Her neurological development has remained normal.

Conclusion and Recommendation: GCMN is a rare condition resulting in great psychosocial distress for affected children and their families. The risks of neurologic and malignant complications imply a need for early identification and follow up of affected patients in order to improve outcome.

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PDER-3: Folliculitis decalvans in a child: A case report

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Background: Folliculitis decalvans is progressive disorder of the scalp characterized by recurrent crops of follicular pustules, redness, swelling, rounded patches of alopecia and crusting that may lead to destruction of the follicle and permanent hair loss and scarring if not diagnosed and treated promptly. It affects both sexes and can occur any time from adolescent to adult life. It rarely occurs in children. The etiology is unknown. Host immune response has been linked to its pathogenesis. Treatment is difficult. There is no permanent cure for the condition.

Objective: To report a 10-year-old male with folliculitis decalvans treated successfully.

Case report: A 10-year-old male presented to the paediatric dermatology clinic with history of patchy of scalp hair loss, itching, boils, redness and swelling of 8 months duration. Mother used selenium sulphide shampoo trice a week for 3 weeks and oral terbinafine 150mg daily for 5 days with mild improvement of symptoms. No further medical attention was sought until the symptoms progressively worsened with extensive areas of hair loss and itching.

Examination revealed round to irregular patchy areas of alopecia on the vertex and occipital regions each surrounded by crops of follicular pustules, atrophy, scales, some scarring, crusting and perifollicular erythema.

Mother declined consent for skin biopsy and histology. Diagnosis was mainly clinical. He was commenced on topical (mupirocin) and oral antibiotics (cephalexin and clindamycin) for one month. Regular cleaning of scalp with antiseptics and shampoo was recommended. Two weekly follow-up visits for 6 weeks revealed significant progressive improvement with complete resolution of symptoms. Mother and patient were counselled on the need for good hair hygiene.

Conclusion: High index of suspicion and early intervention using antibiotics and scalp antiseptics may curb the progression of this condition. This may prevent further hair loss.

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PDER-4: Condylomata acuminata in children demonstrates good response to podophyllin therapy: A report of two cases.

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Background: Condylomata acuminata (anogenital warts) result from infection with the Human Papilloma Virus (HPV) most commonly HPV types 6 and 11. They are uncommon in children and cases may result from inocu-

lation during birth through an infected birth canal, as a consequence of sexual abuse or from incidental spread from cutaneous warts.

Objective: The aim of this is to report two cases of Condylomata acuminata in two children who were successfully treated with 20% podophyllin in tincture of benzoin.

Case reports: Case one is a 13 month old female who presented with progressively increasing fleshy papillomatous lesions in the labia, mons pubis, vaginal introitus and perianal region of 6 months duration. Case two is a 14 month old male with fleshy papillomatous lesions involving the perianal mucosa for 4 months. Patients had no history suggestive of child sexual abuse and also no cutaneous warts on physical examination. Screening for HIV I and II were negative in both cases. The patients had weekly application of 20% podophyllin in tincture of benzoin for 6 weeks. Surrounding skin was carefully protected by the application of petroleum jelly. Podophyllin paint was left on the lesion in a progressively increasing fashion from 1-6 hours and washed off with soap and water after each session. Treatment was well tolerated in both cases and the only side effect noted was erythema of surrounding skin which resolved after few days of topical zinc oxide application. Lesions showed progressive reduction in size until complete resolution at the end of therapy.

Conclusion: Condylomata acuminata in children responds to podophyllin therapy with good tolerability and minimal side effects.

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PDER-5: Aplasia cutis congenita: A case report from north western Nigeria

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Background: Aplasia cutis congenita (ACC) is a rare and heterogeneous group of congenital disorders that are characterized by localized or widespread absence of skin which may be associated with other abnormalities. ACC commonly affect the scalp in majority of cases but can affect other sites like the trunk and limbs. It is inherited either as autosomal dominant, recessive or caused by a new mutation. The exact cause is unknown although some intrauterine conditions may play a role in the etiology. To the best of our knowledge, there is no case reported from North Western Nigeria.

Case report: Our patient was a 26 hour old male baby delivered at home via SVD. At delivery, extensive absence of skin was noticed over anteromedial aspect of the distal third of the thighs extending down to the dorsum of the feet. The elbows were also affected. Few days into admission, he developed blisters over the unaffected areas of the hands. The patient was co-managed

conservatively with the plastic surgical team and the lesions healed within 3 weeks.

Conclusion: Even though the condition is rare, it can occur in neonates in North Western Nigeria. Conservative management is effective even with extensive ulcer, in the absence of deep tissue loss, as observed in our patient.

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PEND-1: Becker's nevus syndrome: A case report

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Background: Becker's nevus syndrome is a syndrome characterized by the presence of a Becker's nevus with ipsilateral breast hypoplasia or hypoplastic defects of the muscle, skin, or skeleton. The nevus usually consists of a circumscribed, unilateral, irregularly shaped hyperpigmented macule, commonly occurring around the anterior upper trunk, with/without hypertrichosis and/or acneiform lesions. This rare syndrome has not been reported in our locality to the best of our knowledge.

Case report: We report the case of a 15-year-old Igbo female patient who presented to our pediatric endocrinology clinic, University of Nigeria Teaching Hospital, Enugu, with complaints of asymmetry of the breasts and hyperpigmented macules on the side. Based on her symptoms, diagnosis of Becker's nevus syndrome was made. The diagnosis of Becker's nevus syndrome is mostly clinical, based on the presence of a Becker's nevus with ipsilateral breast hypoplasia or hypoplastic defects of the muscle, skin, or skeleton. In our patient, there was a Becker's nevus with ipsilateral breast hypoplasia. This syndrome, belonging to the class of epidermal nevus syndromes, is very rare, and is usually benign. She was placed on spironolactone tablets 50 mg daily, which have been associated with an improvement in the size of the hypoplastic breast, and her fears were allayed.

Conclusion: This syndrome has not been reported in our locality to the best of our knowledge and, therefore, has a propensity for misdiagnosis by clinicians because of its rarity. We therefore report this to create awareness among clinicians regarding this condition that is associated with much psychosocial trauma among patients, and that can be easily managed with oral spironolactone.

Keywords: Breast, Becker nevus, Syndrome

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PEND-2: Unstable homes contribute significantly to the development of diabetic keto acidosis in Port Harcourt Nigeria

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Background: Diabetes control is usually predicated on availability of insulin, frequent glucose testing and proper dietary management. Predisposing factors to

DKA include unstable homes, unstable environment and economics, government unfavourable policies, famine and wars. The unstable homes are classified based on parental marital status, income stability, conflict within the homes etc, and these reduce the care giving abilities of the family. The psychosocial stresses were investigated in our patients with diabetes to test the hypothesis that these increase the frequency of DKA and also prevent proper glycaemia controls.

Methods: 46 children and their parents were interrogated on the psychosocial stresses they are undergoing. The frequency and types of DKA patients suffered in the past year was also recorded along with their most recent HbA1c. All statistics were analysed using IBM SPSS version 24 for Mac and p values < 0.05 were stated as significant for comparative analyses.

Results: Majority, 31 (67.4%) of the children were living in two parents' family settings, while the rest were in various forms of family dynamics including single parenthood, 11 (23.9%), and outside nuclear families. Twenty-one (45.7%) were living in poor conditions with limited financial resources and 25 (54.3%) could not provide their parental functions adequately. Seven children had frequency of 3 DKA episodes/ year and 5 of these were living in either single parent settings or extended nuclear families, $p = 0.002$. The mean HbA1c for children living in 2 parents setting was 7.2 ± 0.25 , as against 10.4 ± 1.9 for those in single parent/ nuclear setting, $p < 0.001$.

Conclusion: This study has shown that psychosocial stress in families including living in single parent settings and having financial stress with difficulties in proving insulin and glucose testing significantly prevents proper glycaemia controls in children with diabetes.

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PGAS-1: Transit time from home-based to facility-based management of childhood diarrhea

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Background: Diarrhea is a leading cause of childhood morbidity and mortality globally. Management involves home and facility-based care. Recognition of indications and eventual transition from home to facility-based management is crucial to recovery and survival of under-fives with diarrhea.

Objectives: To determine the time to transition from home to facility care in under-fives with diarrhea and the factors associated with it.

Methods: The study was conducted among under-fives admitted on account of diarrhea into the Children's Emergency Unit of the University of Uyo Teaching Hospital. A semi structured questionnaire was used to obtain data on the biodata, socio-demographic characteristics, diarrheal illness, home treatment of diarrhea and time of transition from home to facility-based care. Transit time was considered early if effected within 72

hours of the illness. Factors associated with time to transition from home to facility care were assessed by Chi-Square Test and deemed statistically significant if p-value was < 0.05.

Results: A total of 100 caregivers participated in this study. Transition from home based to facility-based care within the first three days of the illness was reported in 67 (67%) caregivers. Early transition from home to facility based care were significantly associated with passage of 5 stools/day ($p = 0.039$) and the absent of blood in stool ($p = 0.029$). Social class, medications and breast-feeding practices were not significantly associated with transition of care.

Conclusion: The transition from home to facility-based care was fairly good and associated with less complicated diarrheal-related morbidities in the children.

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PGAS-2: Eosinophilic oesophagitis in a Nigerian adolescent- A case report and review of literature

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Background: Eosinophilic esophagitis (EoE) is a chronic, immune, or antigen-mediated disease condition characterized clinically by symptoms related to dysfunction of the oesophagus and histologically is marked by eosinophilic infiltrate in the oesophageal mucosa. It is prevalent in the developed countries and is rare in developing countries. Allergic and genetic factors play important role in the aetiology of EoE.

Case report: This is a report of the first case of EoE in a 15-year-old female Nigerian adolescent who presented to the University of Calabar Teaching Hospital with recurrent vomiting, abdominal pain, bloating, weight loss and dysphagia. She had initially received treatment for Gastro-oesophageal disease. Weight on admission was 39kg and height 170cm with a BMI below the 3rd centile. Peripheral blood showed an eosinophil of four per cent. Abdominal CT scan and upper GI series were normal. Faecal antigen for H. pylori and ova for stool parasites were negative. Histologic findings of proximal and distal oesophageal mucosal biopsies showed greater than 15 eosinophils per high power field. She was treated with steroid and proton pump inhibitor. She had selective elimination of peanuts and wheat from her diet as these were found to trigger vomiting. Symptoms have improved gradually, and she is still being followed up. This case shows that EoE may occur in developing countries, but diagnosis is missed.

Conclusion: There is the need for a high index of suspicion among gastroenterologists in patients with symp-

toms suggestive of GERD not responding to therapy. Abbreviations: EoE = eosinophilic esophagitis, PPI= proton pump inhibitors, GERD=Gastroesophageal reflux disease, BMI = Body mass index

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PGAS-3: Assessment of feeding practices in infants 0 – 6 months in bomachoge borabu sub – county, kisii-kenya.

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Background: The World Health Organization recommends exclusive breastfeeding (EBF) for the first 6 months of life and estimates that over 800,000 children below 5 years could be saved annually if infants were optimally breastfed. Based on the Kenya Demographic Health Survey (2014), the EBF rate for the first six months is 61%.

Objective: Describe EBF practices and understand factors that influence EBF including caregiver motivation, barriers faced, solutions to these barriers and available supports.

Methods: Using a community-engaged and mixed methods approach, we conducted free listing questionnaires (FLQs), 3 focus group discussions (FGDs), 8 key informant interviews (KIIs) and a community mapping exercise in Bomachoge Borabu Sub-county.

Results: Seventy eight per cent of the 41 caregivers from the FLQs practised EBF during the first week of life but only 34% continued until 6 months - porridge (51%) and water (12%) were introduced early most frequently. EBF motivation among all 9 caregivers in one FGD was high. Barriers included: attending school, working, poor maternal diet, excessive infant crying, and impracticality. To overcome these barriers the community proposed: education beyond hospitals, peer support groups, father's support and financial assistance.

All caregivers reported seeking breastfeeding support from community health volunteers (CHVs). Traditional healers also advocated for EBF and expressed interest in collaborating with CHVs. Infants at risk of suboptimal feeding included: living in poverty, being an orphan, or having a parent who is sick, single, working or a teenager.

Conclusion: Despite exhibiting high motivation for EBF, practice was low. The community identified barriers and solutions to improving EBF rates.

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PGAS-4: Adolescent suicide and depression: should we take a closer look at adolescent nutrition?

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Background: Adolescents are aged 10 – 19 years and constitute about 1.2 billion of the world's population (20% of world population). Adolescent period is fraught with physical and psychological changes. Depression is a leading cause of disease and disability globally with suicide being the fourth leading cause of death among adolescents aged 15–19 years. Increased global awareness of the importance of mental health for global health has led to new initiatives supported by the United Nations (UN) and World Health Organization (WHO). The suicide mortality rate is one of the indicators covered by the Sustainable Development Goal 3.

Objectives: To provide current information on adolescent suicide and depression and to document the relationship between adolescent nutrition, suicide and depression

Methods: This review provides current information on pattern of depression and suicide among adolescents. Gives an overview of the association between adolescent nutrition and depression and suicide and examines the implications thereof.

Results: Literature revealed a variety of confounders such as poverty, socioeconomic status, and food insecurity as factors related to depression, many of these have been accounted for in the dietary pattern and depression relationships. Majority of literature studied showed some relationship between adolescent depression and adolescent nutrition.

Conclusion: Dietary modification, macro- or micronutrient supplementation is an emerging field of interest in treatment research for psychiatric disorders and more research is needful in this regard. The report is a call to action and proposes further research on adolescent nutrition vis-a-vis depression and suicide. It advocates for more efforts to be put into adequate adolescent nutrition through community participation, adolescent nutrition favourable policies at the local, state and federal levels.

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PGAS-5: Determinants of obesity among adolescent in Bayelsa State, Nigeria

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Background: Adolescent obesity is fast becoming a global public health concern and increasing the risk for noncommunicable diseases in adult life. This study sought to determine the prevalence of obesity and identify its determinants among school-going adolescents in Yenagoa, Bayelsa State.

Methods: In this descriptive cross-sectional study, 1417 adolescents selected by multi-stage sampling technique from secondary schools in Yenagoa were evaluated. Using self-administered, semi-structured questionnaires data including socio-demographic/economic characteristics, dietary behaviour, and physical activities was collected. Height and weight were measured, thereafter body mass index (BMI) calculated. Using the WHO Anthroplus software, BMI percentile was determined and BMI >95th percentile was defined as obesity. Prevalence of obesity was the proportion of adolescent with BMI >95th percentile. Determinants of obesity were investigated using a bivariate and multivariate binary logistic regression analysis. Level of significance was set at pValue<0.05.

Results: Majority of participants were females (58.1%), from monogamous families (57.4) and of Ijaw ethnicity (70.6%). The prevalence of obesity was 8.3%. Determinant of adolescent obesity were adolescents from high social class (aOR–2.51; p–0.015), attending private schools (aOR–2.62; p – 0.042), those who consumed soft drinks>thrice weekly(aOR–2.09;p–0.009), not engaging in exercise(aOR–1.78;p – 0.023) and night sleep duration<6hours(aOR–3.91;p–0.001)

Conclusion: Adolescent obesity is prevalent in Yenagoa, Bayelsa state. There is an urgent need to implement policies that enhance physical activities in schools and control the consumption of soft drinks among adolescents in Bayelsa state to control the slowly evolving pandemic of obesity.

Keywords: obesity; adolescents; dietary behaviour; Body mass Index

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PGAS-6: Cholelithiasis in a 14-year-old sickle cell anaemia patient – A case report

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Background: Cholelithiasis is a rare condition in other-

wise healthy children, but its prevalence is however, considerably higher in predisposing disorders such as sickle cell anaemia (SCA) and obesity. Cholelithiasis is largely asymptomatic, however, symptomatic patients may present with symptoms mimicking abdominal vaso-occlusive crisis or other acute abdominal pathology.

Objective: We report a SCA patient who presented with calculus acute cholecystitis in order to further strengthen awareness of the increased risk of cholelithiasis in children with SCA, as well as to highlight the possible misdiagnosis of symptomatic cholelithiasis for abdominal vaso-occlusive crisis.

Case Summary: O.O. a 14-year-old adolescent male known SCA who presented on account of recurrent abdominal pain of ten days and non-bilious, non-bloody vomiting of two days duration. Abdominal pain was felt at the right hypochondrial region, sudden in onset, colicky and radiated to the right lumbar. The pain was severe enough to preventing sleeping. He had four reported episodes of similar pain in the preceding two months which had been managed as abdominal pain crisis with analgesics.

Examination revealed painful distress, mild pallor and worsening jaundice. He also had right hypochondrial tenderness with a positive Murphy's sign. Other systemic examination was normal. Cholelithiasis complicated by acute cholecystitis was subsequently confirmed via abdominal ultrasound scan. He had a cholecystectomy on the 4th day on admission on account of worsening symptoms on conservative management. Abdominopelvic ultrasound scan revealed cholelithiasis, cholecystitis and mesenteric adenitis. Liver function test revealed elevated total and conjugated bilirubin. Intraoperative finding was of a markedly dilated, thick-walled gall bladder which was tense with multiple gall stones.

Conclusion: In SCA patients, cholelithiasis may be confused with abdominal vaso-occlusive crisis, hence, a high index of suspicion, thorough physical examination as well as appropriate radiological investigations are essential to exclude specific aetiologies and enhance optimal care and prevent complications.

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PGAS-7: Cholelithiasis in children and adolescents with sickle cell disease: Experience in a resource limited setting.

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Background: Sickle cell disease remains prevalent in Nigeria and can be complicated by cholelithiasis even in

children. There is still a dearth of knowledge about the occurrence of cholelithiasis in these children.

Objective: The present study aimed to determine the prevalence of cholelithiasis in paediatric sickle cell disease in Lagos and documents relevant socio-demographic and clinical correlates.

Methods: This was a cross-sectional study of children and adolescents aged 1-19 years with sickle cell disease attending the Paediatric Haematology Clinic of the Lagos University Teaching Hospital. One hundred and forty seven (147) children were consecutively recruited into the study over a 3 month period and they all had sonographic examination of the gall bladder. The association between cholelithiasis, socio-demographic data, clinical symptoms, laboratory parameters and the use of hydroxyurea was also documented.

Results: The median age (range) of the study participants was 9.0 (1 -19) years and majority were males (59.9%). The prevalence of cholelithiasis was 13.6% and the condition was most prevalent in the adolescents (21.4%) compared to the younger children (6.5%). All the children with cholelithiasis were asymptomatic. Age and the frequency of crisis were significantly associated with cholelithiasis on multivariate analysis ($p=0.03$, 0.045 respectively). The use of hydroxyurea was not significantly related to the occurrence of cholelithiasis.

Conclusion: The prevalence of cholelithiasis observed in this study is high. Routine screening of older children and adolescents with sickle cell disease especially with frequent crisis is suggested. Longitudinal studies to establish the relationship between hydroxyurea and cholelithiasis is also advocated.

Key-words: Cholelithiasis, Children, Adolescents, Sickle cell disease, Nigeria

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PHAE-1: Challenges in the management of paediatric oncology patients in the university of Uyo teaching hospital, Uyo, southern Nigeria

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Background: Childhood cancer burden is an important child health concern globally. Several million new cases are diagnosed annually, and the greatest burden borne by developing countries. The management of paediatric oncology patients is fraught with myriads of challenges, which significantly affects outcome.

Objectives: To identify the various challenges in management of children with cancers in this institution, and proffer interventions which may impact positively on their survival and quality of life.

Methods: A three- year retrospective study of children admitted with cancers. The available records of their admission, treatment process, progress, and outcome were reviewed.

Results: Of the thirty-eight (38) patients seen, all presented at a late stage of disease. The socio-economic class of parents were mostly low (81.6%) and all treat-

ments were self-sponsored, with 44.7% discharging against medical advice due to financial constraints.

Conclusion: The challenges in the management of Paediatric oncology patients included late presentation, financial constraints/poverty, burn-out of caregivers, with a resultant high rate of discharge against medical advice. Greater awareness about childhood cancers, increased advocacy for governmental input by way of resources, infrastructure and health insurance policies would improve outcome. There is also need to drive the establishment of dedicated regional Paediatric cancer centres.

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PINF-1: First viral load in children with chronic hepatitis b infection in federal teaching hospital, Gombe North East Nigeria.

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Background: Nigeria is among the countries with a high burden of viral hepatitis with a Hepatitis B Virus (HBV) prevalence of 11% accounting for 8.3% of the global burden. Substantial perinatal and childhood transmissions do occur. While the landscape for diagnostics and antiviral therapy in children has had significant improvement, access to viral load testing and antiviral treatment remain formidable challenges in the country. We report viral load in children with CBV infection.

Methods: First viral load test (VLT) of children 0-18 years diagnosed with chronic Hepatitis B between 2016 and 2019 in Federal teaching hospital Gombe were determined using COBAS CAP/CTM 96. VLT for HBV started in 2016 in our centre.

Results: Of the 783 children screened for Hepatitis B, 11.5% (90/783) tested Positive. 66% (60/90) had VLT. Of the 1490 VLT for Hepatitis B performed on children and adults in the study period, 60 children had VLT constituting 4.0% (60/1490) all VLT. 93 % (56/60) were 10 -18yrs old; 57 % (34/60) were males and 43 % (26/60) were females. 43%(26/60) had VL >10000cp/ml (18males vs. 8females);18%(11/60) had VL 2000-5000cp/ml(6females vs. 5males); 11%(7/60)had 5000-10000cp/ml(4females vs. 3 males);10%(6/60)20-2000cp/ml(4males vs. 2 females). 8.3 % (5/60) and 6.6 % (4/60) had VL of <20 cp/ml and Undetectable VL respectively. At higher VL there were more males than Females however $P=0.1$. Adolescents had higher VL than younger children but this was not statistically significant ($p=0.2$).

Conclusion: Adolescents with CHBV have high viral load threshold for antiviral treatment consideration in

our facility

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PINF-2: Pattern of under-five childhood malaria and RDT sensitivity and specificity in Kano, north-western Nigeria: a pilot study.

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Background: An estimated 229 million malaria cases occurred globally in 2019, mainly in Africa with 23% in Nigeria. Malaria infections in tropical Africa including Nigeria (> 95%) are mainly caused by *P. falciparum* with a few *P. vivax* cases, reported in South-western Nigeria. The gold standard of parasitological diagnosis is microscopy but WHO also recommends Immunochromatographic rapid diagnostic tests (RDT).

Objective: In this pilot study, we aimed to determine the pattern of Malaria, the Sensitivity and Specificity of RDT in Kano.

Methods: Blood samples were collected from all febrile under-five children and RDT for four malaria species, thick and thin blood film, malarial parasite microscopy, parasite quantification and parasite density were conducted. All data were recorded and analysed in SPSS Version 22

Results: There were 62 children enrolled for this pilot study with a mean five year age, comprising thirty males and a male to female ratio of 0.9. Severe malaria was observed in 37 (59.7%) children, while 25 children (40.3%) had simple malaria. *P. vivax* and *P. falciparum* co-infection was observed in 12 (19.4%) children with Severe Malaria and 1 (1.6%) child with Simple Malaria. *P. falciparum* alone was observed in 29 (46.8%) children with Severe Malaria and 20 (32.3%) children with Simple Malaria.

Compared to microscopy the sensitivity of RDT was 83.6% and specificity of 100%.

Conclusion: *P. vivax* and *P. falciparum* co-infection malarial parasitaemia is prevalent in Kano probably endangering antimalarial treatment responses. RDT specificity falls short of microscopy by 16%. Malaria microscopy is recommended for diagnosis whenever feasible.

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PINF-3: Bacterial blood isolates in children: comparison of convectional vs. Bactec automated blood culture system in the federal teaching hospital Gombe.

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Background: Blood culture is critical in the diagnosis and treatment of blood stream infection especially in children. Reliable and accurate diagnosis of these infections is therefore very important. Blood cultures are therefore the reference method for diagnosis of BSI.

Objectives: We sought to compare Blood culture (BCI) isolates from conventional and Bactec automated blood culture (ABCS) systems from our facility

Methods: BCI in children (0-18years) by conventional method from 2008-2012 and Bactec Automated culture system from 2015 -2020 were retrieved. Information analyzed included, age, sex, month, year and culture growth. Cost of Conventional method (CM) ranged from N300- N1000 while Bactec is N5000(\$12)

Results: There were 5,276 (56.9% males, 43.1% females) and 1169 (54% males, 46% females) BCI from CM and ABCS respectively. Overall positive culture isolates was 9.7 %515/5276; Males 57% 293 and females 43% 222) in CM and 45.9 % (536/1169) in ABCS (p=0-01). Positivity rate in newborn was 13.3 % (282/2114) by CM and 40.9 % (219/263) by ABCS p=0.01; under-5 was 10.5% (448/4253) vs. 37% (359/873)(p=0.01); school age was 8.4%(46/549) by CM and 34% (41/118) by ABCS p=0.01); adolescents 6.1%(23/378) by CM and 31%(56/178) by ABCS p=0.01 Gram positive 32.6%(172) vs. 65%(759) (p=0.01; Gram negative 55% (2910) vs. 34%(397)(p=0.01). Staph aureus 22% (114/515)by CM vs. 61.9%(332/536)) by ABCS (p=0.01); Klebsiella 24.9%(128/515) by CM vs. 7.5% (40/536) p=0.01), Ecoli 8.9%(46/515) vs. 2.1%(11/536) p=0.01; Proteus vs. 1.1%(6/515) by ABCS, Pseudomonas 3.3%(17/515) vs. 5.6%(30/536)p=0.05, alkaligenes 1%(5/515) vs.8.2%(44/536)p=0.01 and citrobacter 1% (5/515) vs. 8.4%(45/536)p=0.01.

Conclusion: Blood culture yield is higher with Bactec ABCS compared with Conventional method.

124**PINF-4: Bacitracin test: no longer a valid presumptive means to identify group A beta-haemolytic streptococci***Bassey S¹, Ikpeme EE¹, Akpan MU¹**Department of Paediatrics, University of Uyo Teaching Hospital, Uyo, Akwa Ibom State*

Background: The Bacitracin Susceptibility Test has traditionally been accepted as a means of presumptive identification/differentiation of Group A Streptococcus (GAS) from other Beta haemolytic Streptococcal (BHS) strains. This means of identification may indeed be faulty as recent studies have shown that other BHS species may also be highly susceptible to Bacitracin. These include Group C (GCS) and Group G (GGS) BHS strains which have increasingly been shown to play an important role in human streptococcal throat infections.

Objectives: The study aimed at determining susceptibility of BHS isolates to Bacitracin.

Methods: Throat swabs taken from 276 school-aged children in Uyo were cultured overnight on 5% sheep blood agar. Culture plates identified as positive for BHS were sub-cultured for purity and then inoculated with Bacitracin 0.04U discs for presumptive identification/differentiation of GAS. Lancefield Grouping of streptococcal isolates was also done.

Results: Nine BHS isolates were identified, giving a prevalence of 3.3% among the school children. All BHS isolated showed susceptibility to Bacitracin. Lancefield grouping identified GCS in 89% and GGS in 11%. No GAS isolates were found.

Conclusion: All the Non-GAS BHS isolates were found to be 100% susceptible to Bacitracin in this study. Thus, the continued use of Bacitracin for presumptive identification of GAS may lead to an overestimation of GAS rates particularly in settings like ours where there is a changing epidemiology of BHS infections.

125**INF-141: Incidence of rotavirus infection in children with acute diarrhoea in Calabar, Nigeria***Nwachukwu TI¹, Etuk IS^{2,3}, Ikobah J^{2,3}, Uhegbu K^{2,3}, Muoneke L³, Asuquo AE¹**Department of Medical Laboratory Science, University of Calabar**Department of Paediatrics, University of Calabar, Calabar**Department of Paediatrics, University of Calabar Teaching Hospital, Calabar*

Background: Diarrhoeal disease is the second leading cause of death in children aged under five. Rotavirus is a common causative organism of diarrhoeal disease in this age group.

Objective: This study evaluated the incidence of rotavirus in diarrhoeal stools of children presenting with acute watery diarrhoea to the University of Calabar Teaching Hospital.

Method: This was a cross sectional study and 115 children aged less than five years were randomly selected into the study. Stools were collected in universal containers and rectal swabs were also collected from participants. Rotavirus assay was performed using Prospect Rotavirus microplate Assay method.

Results: Of the 115 diarrheal stool samples examined, 51 (44.3%) were positive for rotavirus. The commonest age group affected was less than 12 months (37.3%) and the least in 25-60 months (29.4%). There was no significant difference in the prevalence of rotavirus diarrhoea in the different age groups ($p > 0.05$). Among the study population, 15 were exclusively breastfed, of which two (13.3%) were positive for rotavirus, 31 were bottle (formula) fed of which 25 (80.6%) were positive for rotavirus. Sixty-nine of the children were fed with family diet and 24 (34.8%) had rotavirus diarrhoea. Children who were exclusively breast fed and those who were fed family diet had a significantly lower rate of rotavirus infection compared to children who were bottle (formula) fed $p < 0.05$.

Conclusion: This study demonstrates the importance of rotavirus organism as a cause of acute diarrhoea among children in Calabar and the relationship of the disease with the mode of feeding.

126**PNEO-1: Newborn blood culture isolates: changing pattern or new blood culture method? Experience from federal teaching hospital Gombe***Isaac EW¹, Jalo I¹, Manga MM², Difa AJ³, Christianah O⁴, Danlami MH⁵**Department of Paediatrics College of Medical Sciences Gombe State University**Department of Medical Microbiology College of Medical Sciences Gombe State University**Department of Community Medicine, College of Medical Sciences Gombe State University**Infectious Disease training and Research Group Gombe Molecular Laboratory Federal Teaching Hospital Gombe*

Background: Nigeria has an incidence of neonatal sepsis of 18.3/1000 live births with an average mortality rate of 28%. This burden remains one of the highest globally.

Objective: We aimed to determine if there is any change in newborn blood isolates in our facility

Methods: Blood culture isolates (BCI) of newborns between 2008-2012 using the conventional method (CM) and those between 2015-2020 using Bactec automated blood culture system (ABCS) were compared. Sex, culture growth and bacteria were analyzed.

Results: There were 5276 blood cultures in children 0-18 years between 2008-2012 by CM and 1169 between 2015-2020 by ABCS. 2,115 BCI in neonates between 2008-2012 by CM and 361 by ABCS between 2015-2020 constituting 40.8 % and 31 % (361/1169) of all blood cultures in children 0-18 yrs respectively. 13.3 % (282/2115) of cultures by CM and 40.9 % (219/361) by ABCS were positive ($p = 0.01$). Gram Positive consti-

tuted 36 % (102/282) by CM and 54 % (188/219) p=0.01; gram negative was 64 % (181/282) by CM and 46 % (46/219) by ABCS p=0-01.

The BCI by CM in decreasing frequency included Klebsiella 37% (104/282); Staph. aureus 19% (54/280); Enterococcus 5% (14/282); Enterobacter 2% (6/282). By ABCS, Staph. aureus 50% (109/219); Alkaligenes 16 % (35/219); Citrobacter 11% (23/219); Pseudomonas 6% (13/219)

Staph.aureus by ABCS (109/219) by CM (54/280) p=0.01; Alkaligenes by ABCS (35/219) and CM (5/282) p=0.01; Citrobacter by ABCS (23/219); CM (4/280) p=0.01; Klebsiella by ABCS (18/219); CM (104/280) p=0.01

Conclusion: It's unclear if the significant difference in BCI in the newborn by the two culture methods has answered our research question.

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PNEO-2: Cord blood vitamin a levels and intraventricular haemorrhage outcomes in preterm infants

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Background: Intraventricular haemorrhage (IVH) is a major complication of preterm birth and large haemorrhages may yield significant future disability. Although multifactorial, prematurity and LBW are the most important risk factors for IVH. Also, being “born too soon” affects the accretion of Vitamin A(VA) which is essential for normal brain development.

Objective: We sought out to estimate VA nutrient levels among preterm newborn infants at birth and establish any relationship with IVH occurrence and grade severity.

Methods: Ninety infants were recruited over a 6 Months period .VA levels was determined by ELISA using cord blood and IVH was assessed by transcranial ultrasound scan done on the 7th day of life. Data analysis was by statistical package for social sciences IBM [SPSS] version 21. P-values of < 0.05 were considered as significant.

Results: The infants' median (IQR) for gestational age, birth weight, and cord blood VA levels were 32weeks (4.25weeks), 1580g (650g), and 0.31µmol/L (0.19µmol/L) respectively. The prevalence of VA deficiency, Low VA, and Sufficient VA were 67.8 %, 25.5% and 6.7 % respectively. IVH was found in 8 (9.20%) infants, with incidence rates of 5.70%, 2.30%, and 1.10 % for Grades I, II and III respectively. Although statistically insignificant, the occurrence of IVH was only among infants with abnormal VA status at birth (p =0.65).

Conclusion: Despite low median cord blood VA level of preterm infants in this study, there is no impact on IVH occurrence or grade severity. Further study with larger sample size is warranted.

Key words: Intraventricular haemorrhage; Cord blood Vitamin A; Preterm

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PNEO-3: COVID-19 exposed neonates; our experience at Edward Francis small teaching hospital Banjul, the Gambia

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Background: The COVID-19 pandemic has led to significant changes in healthcare delivery and clinical management of pregnant women and their newborns as the availability of healthcare resources, rates of infection, and scientific data continue to evolve. COVID-19 contagion is mainly through respiratory droplets or direct contact with infected subjects or contaminated surfaces. In neonates, vertical (intrauterine) transmission has also been postulated, but available evidence is insufficient to support this hypothesis

Neonatal SARS-CoV-2 infections are also extremely rare and, to date, there is no evidence of intrauterine infection caused by vertical transmission. As described in a case report and a case series, amniotic fluid, cord blood, neonatal throat swab, and colostrum samples collected from infected mothers were negative for COVID-19.

Objective: Over the one-year period we admitted only newborn who were COVID-19 exposed, as they were delivered to COVID-19 infected mothers. We decide to report these five cases to share experience and knowledge.

Case Reports: First case was a 2hours old 39 weeks old term male neonate delivered via Cesarean section (CS) to a 32 years old mother, indication being COVID-19 infected mother and severe preeclampsia. Baby developed difficulty in breathing and excessive crying.

Examination finding were term neonate, pink, weight was 3.7kg, anicteric and acyanosed. Random blood glucose was 5.2 mmol/L, haemoglobin concentration was 17.6gm/dl, PCV (52.8%). O2sat was 100% at room air. Length was 51 CM, OFC was 35 CM.

The second patient was 15 hours old female delivered at gestational age of 32 weeks via EMCS indicated by severe preeclampsia in a young para-2 mother who is a medical Doctor working in emergency department for which she was admitted 2 days and was placed on anti-hypertensives. Birth weight was 1.33kg, BL-42 CM, OFC-31 CM SPO₂ was 95% at room air, RBG-6.5mmol/L, Pink, acyanosed and active

The 3rd Patient is 3 hours old female delivered via EMCS to 23 years old mother who is nursing officer working in the accident and emergency unit of Edward Francis Small Teaching Hospital Banjul the Gambia. Examination finding were otherwise unremarkable; however, weight was 2.2 kg, length of 47cm, HC of 35cm, temperature was 36.8oc, there were no dysmorphic features. Spo2 was 96% at room air, raised to 100% on INO2

The 4th Patient is 2 hours old male newborn delivered to 28 years old p4 at term. Delivery was per vaginam while being prepared for EMCS, cried well at birth and A/S was 8 and 9 at 1st and 5th minutes respectively. Liquor was not meconium stained and no history of PROM. He was tested also positive to COVID 19. Examination findings were; weight=2900gms, length=49cm, ofc=34cm, Spo2=96% at room air.

Case number 5 was 4 hours old preterm female newborn delivered through EMCS due to eclampsia to 20-year-old primipara at GA of 34 weeks by Ballard. Mother had symptoms and signs of acute respiratory infections and was diagnosed with COVID-19 following positive test to COVID. She had spontaneous PPRM at 34 weeks gestation. She was pink, had subnormal temperature of 35.7°C, weight=1.9kg, length=44cm, and OFC=32cm Spo2=96% at room air.

Conclusion: Of the five newborns born to COVID-19 infected mother, only was confirmed to be COVID 19 infected. All the five cases were cared for as per protocol for COVID-19 exposed/patient. The course of diseases and care of all the newborns followed strictly in accordance with standard of operative procedures. Our patients spent minimum of 3 weeks in our care, they all re-united with their mothers and had commenced direct breast feeding without any difficulty. All the infants are doing well at exclusive breastfeeding.

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PNEO-4: Glucose-6-phosphate dehydrogenase deficiency among ICTERIC neonates in the University of Uyo Teaching Hospital

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Background: Glucose-6-phosphate dehydrogenase (G6PD) deficiency, an X-linked recessive disorder, is the commonest inherited red cell enzymopathy affecting mankind. It is a known cause of severe neonatal hyperbilirubinaemia that can result in permanent neurologic damage or death. The disorder is more commonly expressed in males compared to females and occurs most frequently in Africa, the Mediterranean, and the Middle East. A number of triggers have been identified to cause haemolysis in these patients.

Objectives: To estimate the incidence of G6PD among icteric neonates admitted in the University of Uyo Teaching Hospital with the view of determining the incidence of G6PD deficiency.

Methods: One hundred and forty neonates were recruited into the study over a period of one year. Screening for G6PD deficiency was carried out using a quantitative in vitro test (Assay Pro). The data were analyzed with SPSS version 23.0.

Results: Out of 140 icteric neonates, 41 were deficient, one intermediate. The incidence of G6PD deficiency in jaundiced neonate was 29.3%, with a male to female ratio of 1.4:1.

Conclusion: The incidence of G6PD deficiency among neonates admitted in University of Uyo Teaching Hospital, Uyo, Nigeria is high. This underscores the need to screen all neonates with jaundice for G6PD deficiency in our hospitals.

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PNEO- 5: Newborn Screening for Sickle Cell Disease in Nigeria – Challenges and Opportunities.

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Background: Sickle cell disease (SCD) is an inherited autosomal recessive disorder affecting red blood cells with high morbidity and mortality worldwide. Sickle cell anaemia (SCA) is the most common type of sickle cell disease. The United Nations has recognized SCD as a global public health problem and the World Health Organisation (WHO) had recommended that member states initiate National sickle cell control guidelines which are comprehensive by 2020.

While there has been significant improvement in outcomes for children with SCD in High-income countries due to factors such as early diagnosis through prenatal diagnosis, newborn screening programs, prophylactic therapy, hydroxyurea therapy and bone marrow transplant, low- and middle-income countries such as Nigeria still have a high disease burden.

Result: In most African countries including Nigeria, neither prenatal nor neonatal screening for sickle cell disease is readily available or affordable. Thus, in the absence of a routine newborn screening program, diagnosis is often made when patients show up with suggestive clinical features or based on request of parents or healthcare providers.

High Performance Liquid Chromatography is the gold standard for diagnosis of SCD in newborns, however it is expensive and needs expertise to function. An inexpensive and easy to use Point of Care Testing device is currently available and has shown high sensitivity and specificity in the detection of Haemoglobin genotype and can play a role in coordinated newborn screening for SCD in Nigeria.

Conclusion: Morbidity and mortality from SCD are preventable if children are started early on interventions like folic acid, administration of oral penicillin, immunizations, prevention and treatment of malaria. However, we will not know which child has sickle cell disease and will require special care if we are not routinely testing every newborn for Sickle Cell Disease

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PNEO-6: Pattern of neonatal mortalities in the special care baby unit of Federal Medical Centre Owerri

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Background: There has been a gradual decrease in the number of global neonatal deaths in the last three decades from 5 million deaths in 1990 to 2.4 million deaths in 2019. While childhood mortality has been declining rapidly, neonatal mortality has declined rather slowly and is still a major contributor to overall childhood mortality. Nigeria had a neonatal mortality rate of 35.9 deaths per 1000 live births in 2019. It is important to ensure periodic evaluation of the pattern of neonatal mortalities for proper documentation, policy making and the institution of measures aimed at reduction.

Objective: The aim of this study was to describe the pattern of mortality in the Special Care Baby Unit (SCBU) of the Federal Medical Center Owerri, over a 3-year period (1st July 2018 to 30th June, 2021).

Methods: The admission records of all the children who were admitted and died during admission in the Special Care Baby Unit (SCBU) of the Paediatrics department, Federal Medical Center, Owerri, were retrospectively reviewed and analyzed.

Results: A total of 1284 patients were admitted into the SCBU during the study period. The total number of patients who died was 220 with an overall mortality rate of 17.1% (23.2% in the out born and 13.0% in the inborn). The commonest cause of death was perinatal asphyxia (47.7%), followed by prematurity (28.2%) and Neonatal sepsis (11.4%). Majority (74.6%) of the deaths in the SCBU occurred after 24hours of admission. The prevalence of perinatal asphyxia as cause of death was higher in the outborn (53.7%) than the inborn (40.4%).

Conclusion: The mortality rate in this study was significant with perinatal asphyxia and prematurity being the commonest causes of death in the SCBU. A major proportion of the mortalities in this audit occurred after 24 hours of admission. The Mortality rate in the outborn was significantly more than that in the inborn patients. This was most likely as a result of poor neonatal services received from the referring health institutions and late presentation at the center. Concerted efforts towards intensifying prevention strategies such as training and retraining of healthcare workers, attendance of skilled birth attendants at every delivery and health education to improve the health seeking behaviour of families. These measures will reduce delay and subsequently lead to improved outcome.

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PNEO-7: Periodic review of positive blood cultures of neonatal patients in a tertiary hospital in Uyo

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Background: Neonatal sepsis is one of the leading causes of neonatal mortality and a major public health problem, especially in developing countries. constant surveillance and accurate data of the bacterial aetiology

is crucial for success of chemotherapy and reduction of bacterial resistance. Periodic review of aetiologic agents and their antimicrobial sensitivity patterns provides the means to this end.

Objectives: This study therefore aims at comparing the aetiological agents of sepsis in the newborn unit of the university of Uyo Teaching hospital (UUTH) over a time period

Methods: This was a review records of blood cultures submitted to the Medical Microbiology Laboratory of the UUTH before and after the introduction of the Bactalert system.

Results: The commonest agent in both reviews was staphylococcus aureus (70% and 73 % respectively. The occurrence of gram-negative organisms was equally comparable. The highest level of susceptibility among Staphylococcus aureus in the Bactalert system was to Meropenem (100%), Vancomycin (91.43%), Imipenem (88.89%), Clindamycin (67.57%), and Azithromycin (60%),

Conclusion: Staphylococcus aureus remains the commonest aetiologic agent of neonatal sepsis. A growing need of use of the carbapenems and vancomycin currently calls for caution to avoid resistance.

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PNEO-8: The relationship between cord zinc and albumin levels in newborns and socio-demographic factors.

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Background: After Iron, Zinc is the next element for which human nutritional requirement has been established. Majority of Zinc in the blood is bound to Albumin.

Objectives: This study aimed to determine the Zinc and Albumin levels of newborns as well as to determine the relationship between the Zinc and Albumin levels and socio-demographic factors.

Methods: This cross-sectional study enrolled 120 subjects. Cord blood sample was taken at delivery. Serum Zinc and Albumin levels were determined using standard techniques.

Results: The mean birth weight of the newborns was

2.76 ± 0.64 kg. The mean gestational age was 37.38 \pm

2.59weeks. The mean maternal age was 32.07 \pm

4.50years. The median parity was 2(1.0 – 3.7). Of the subjects, 101 (84.2%) belonged to the upper socioeconomic class while 19 (15.8%) belonged to the lower socioeconomic class. Mean serum Zinc was 76.12

± 26.70 μ g/dl. Mean serum Albumin was 3.87 \pm

0.52g/dl. There was a significant negative relationship between serum Zinc and parity (r = - 0.19, p = 0.036).

Serum Albumin had a significant positive relationship with birth weight ($r = 0.47$, $p = 0.001$) and gestational age ($r = 0.65$, $p = 0.001$).

Conclusions: Parity influences the newborn's serum zinc levels. Higher parity may cause low zinc levels in newborns, possibly due to depletion from the repeated reproductive events in the mothers. Zinc supplementation to newborns delivered to multi/grand multipara mothers is recommended. Serum albumin levels increase as birth weight and/or gestational age increases and vice versa.

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PNEO-9: Timing and causes of neonatal mortality at the university college hospital, Ibadan over a year period

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Background: The burden of neonatal mortality has remained high especially in Sub-Saharan Africa. The major causes have remained the same despite efforts to improve neonatal care globally.

Objective: To describe the causes of neonatal mortality and evaluate the timing and predictors of neonatal deaths at the University College Hospital, Ibadan.

Methods: This was a retrospective study of 140 neonates who died at the neonatology wards of the University College Hospital in the year, 2019. Data was obtained from the admission and mortality summary records of the wards.

Results: Out of the 962 neonates admitted, 140 died giving a mortality rate of 14.6%. Of those that died, 73 (52.1%) were males. 94(67.1%) were preterm and predominantly very low birth weight babies. 66(47.1%) died within the first week of admission and 74(52.9%) died after the first week. 74 (52.9%) had hypothermia on admission. Birth asphyxia (39%) and sepsis (39%) were the major causes of mortality. Predictors of early neonatal death included being very low birth weight, birth asphyxia and hypothermia. Most of the deaths involved babies admitted within 48hours of life.

Conclusion: Prematurity underlies majority of neonatal deaths. The major causes of neonatal deaths were asphyxia and infections. The need to strengthen neonatal resuscitation, improve perinatal care and infection control are essential to curb needless neonatal deaths.

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PNEO-10: A fatal massive pulmonary haemorrhage presumably following surfactant therapy in an extremely low-birth weight infant: A case report

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Introduction: Pulmonary haemorrhage (PH), defined as alveolar bleeding visualised during tracheal suctioning or naso-/oro-pharyngeal secretions, is a rare but potentially catastrophic complication of preterm infants with about 50% fatality. It may follow surfactant replacement therapy (SRT); paradoxically, its treatment is also SRT! Despite having one of the world's highest burdens of preterm births, we found no published report on PH from Nigeria, hence this report.

Case: AB was born operatively at 29-week 5-day GA (birth-weight=965g) to a 32-year-old G²P1⁺⁰ (1 Alive) booked mother admitted for poorly-controlled pre-eclampsia-superimposed-on-chronic-hypertension. Her routine antenatal tests were normal but 28-week Doppler-velocitometry showed "high resistant flow with absent end-diastolic flow suggesting foetus at moderate risk with tendency to asymmetric IUGR"; but no maternal risk factors for sepsis. Mother had two doses of dexamethasone. Post-resuscitation (suctioning, stimulation), we commenced CPAP, aminophylline, vitamin K, incubator care and later, prophylactic surfactant (unit protocol) which was followed by apnoea necessitating resuscitation. Thereafter, he was stable respiratory-wise but had intermittent fever despite antibiotics. On 3rd day-of-life, he became apnoeic, bradycardic, cyanosed, profusely bleeding from the nostrils/mouth; this persisted despite suctioning, bag-mask ventilation, vitamin K and intubation Unfortunately, his platelets/blood counts samples was lost-in-transit. Post-mortem cranial USS suggested concomitant IVH.

Conclusion: Although overwhelming sepsis with DIC was a possibility in this baby, PH (also known to co-exist with IVH) occurred clinically, possibly temporarily-related to the SRT. Nonetheless, PH is rare- this is the only case out of over 100 babies that have had it in our unit.

Keywords: Alveolar bleeding, complications, surfactant replacement therapy (SRT), sub-Saharan Africa, case report, minimally-invasive surfactant therapy (MIST), less-invasive surfactant administration (LISA)

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PNEP-1: Assessment of the diagnostic values of urine microscopy in primary school children with asymptomatic bacteriuria in Enugu.

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Background: Urine microscopy test is a useful and commonly used test for diagnosis of urine infection because of its relative rapidity and low cost.

Objective: To determine the sensitivity, specificity and positive and negative predictive values of Pyuria and

Urine microscopic bacteria testing in relation to urine culture which is the gold standard, in Enugu, Nigeria.

Methodology: This was a cross-sectional descriptive survey involving apparently healthy primary school children aged 6 to 12 years. A pre-tested, care-giver administered questionnaire was used to obtain information about the participants including age and sex. Following a clinical examination, a sample of spot mid-stream urine was collected from each participant for urine microscopy and urine culture.

Results: A total of 450 apparently healthy primary school children were enrolled into the study. One hundred and ninety-five (44%) were males while 255 (56%) were females. The age range was 6 to 12 years with a mean of 10.13 ± 1.81 years. Ninety (20%) of the 450 urine samples had bacterial growth but only 73 (16.2%) had colony counts 10^5 colony forming units (CFU)/ml and thus qualified as cases of asymptomatic bacteriuria (ASB). Pyuria had a sensitivity of 23.3%, specificity of 96.0%, positive predictive value of 54.2% and negative predictive value of 88.3% for ASB while microscopic bacteria had a sensitivity of 19.2%, specificity of 95.5%, positive predictive value of 47.6% and negative predictive value of 87.6% for ASB.

Conclusion: Positive urine microscopy test result can be a good predictor of positive urine culture because of its high specificity.

Keywords: Asymptomatic bacteriuria, Primary school children, Urine microscopy sensitivity and specificity.

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PNEP-2: Serum neutrophil gelatinase associated lipocalin, early biomarker of acute kidney injury in asphyxiated term neonates at Lagos State University Teaching Hospital

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Background: Perinatal asphyxia is the failure to initiate and sustain breathing at birth due to impaired gas exchange resulting in hypoxia, hypercapnia and metabolic acidosis. It is a major cause of morbidity and mortality worldwide, and frequently complicated by acute kidney injury (AKI) – an independent cause of mortality. Serum creatinine, the widely accepted method for diagnosing AKI is less sensitive marker, lags behind the onset of renal injury owing to the large glomerular functional reserve. Serum creatinine is largely fraught with limitations.

Serum NGAL identifies onset of structural damage (subclinical AKI) long before an overt functional injury becomes appreciable. However, only a few studies have explored the role of serum NGAL in the early detection of AKI in asphyxiated term babies in Nigeria.

Objectives: The index study thus aimed to determine the levels of serum NGAL in the asphyxiated term neonates as compared to the apparently healthy sex and gestational age matched controls, to determine the prevalence of AKI in asphyxiated term neonates using serum

creatinine and urine output levels and to determine the utility of serum NGAL in the early detection of AKI in asphyxiated term neonates.

Methods: Descriptive cross-sectional study was conducted between August 2018 and March 2019 in the Maternity and New-born Units of the Lagos State University Teaching Hospital (LASUTH), Ikeja. Seventy asphyxiated term neonates with moderate or severe asphyxia and seventy non-asphyxiated term controls, were recruited at birth. Cord blood, and serial peripheral venous samples were collected at 6, 12, 24 and 48 hours of life for serum NGAL analysis. Serum creatinine was estimated at birth, 24 and 48 hours of life in the asphyxiated term neonates. Adhesive urine bags were attached to the perineum for the purpose of urine collection and estimation. For the controls, cord blood serum NGAL and peripheral blood serum creatinine was obtained only at zero hour of life while urine output was collected in the first 24 hours of life.

Serum NGAL was analysed using the human NGAL ELISA kit (Bioport diagnostics) while serum creatinine was estimated using the kinetic method described by Jaffe.

Results: The asphyxiated term neonates were found to have a mean serum NGAL levels of 86.28 ± 31.5 , 86.45 ± 32.2 , 89.27 ± 22.2 , 93.57 ± 26.5 and 101.57 ± 34.8 ng/ml at 0, 6, 12, 24 and 48 hours of life respectively. The serum NGAL levels in the asphyxiated neonates were significantly higher as compared to the serum NGAL level in the sex and gestational age –matched healthy controls at birth [86.28 ± 31.5 versus 30.21 ± 10.6 ng/ml], $p < 0.001$].

The prevalence of Acute Kidney Injury in asphyxiated term neonates using serum creatinine levels and urine output was 43 (61.42%). The utility of serum NGAL in the early detection of AKI in the asphyxiated term neonates was observed at birth with a cut-off of 90.14ng/dl, sensitivity 0.810 and specificity 0.735. The area under the curve (AUC) 0.777, 95% CL: (0.661-0.893, $P < 0.001$) determined at birth was the most ideal AUC and is therefore the most appropriate cut-off point for AKI using NGAL.

Conclusions: Serum NGAL is a more sensitive and specific marker of AKI as compared to creatinine in asphyxiated term neonates in Nigeria and it detects sub-clinical AKI while injury is still limitable.

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PNEP-3: Urinary tract infection in children with acute diarrhoea attending a tertiary facility in Nigeria

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Background: Acute diarrhoea caused by rotavirus infection is common in infants and children. Urinary tract infection (UTI) is the second most common bacterial infection.

Objective: This study investigated the incidence of UTI and rotavirus infection in children aged less than five years presenting with acute diarrhoea to the Children Emergency Room of the University of Calabar Teaching Hospital.

Method: This was a cross sectional study. A total of 115 children were sequentially recruited. Urine and stool samples were aseptically obtained from each child. Urine sample was examined macroscopically for appearance and microscopically for pus cells and bacteria. Urine samples were cultured on cysteine factors electrolyte deficient agar. The resulting bacterial growth was counted and recorded as significant or non-significant for bacteriuria using the standard loop method. Rotavirus assay was performed using Prospect Rotavirus microplate Assay method.

Result: Rotavirus was detected in 51 (44.3%) stool samples and three (2.6%) samples yielded bacteria. A total of 25 (21.7%) of the 115 urine samples were significant for bacteriuria. Twenty-five (25) were co-infected with rotavirus diarrhoea, of which 20 were in children less than 12 months of age. *Escherichia coli* was isolated in both urine (92%) and stool (66%) samples. Age and gender were not significantly associated with co-infection of acute diarrhoea and UTI. Children who were exclusively breast fed and those fed with family diet had a significantly lower co-infection of rotavirus and UTI compared to children on bottle (formula) feed (p -value < 0.05).

Conclusion: This study revealed a high incidence of co-infection of rotavirus and UTI in the study population. Therefore, in children with acute diarrhoea, investigation for UTI may be needful.

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PNEU-1: Chorea seen as first presentation of acute rheumatic fever in a child in Sokoto

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Background: Sydenhams Chorea, a major criterion in 15% of acute rheumatic fever (ARF) occurs rarely as the first presentation. Early recognition and appropriate treatment are essential to reduce morbidity and mortality. A case of a girl who presented with chorea after missed diagnosis of pharyngitis and died shortly after admission is reported to highlight this.

Case report: An 8-year-old girl first presented in February 2020 with body pains, neck pains and fever. History of pharyngitis was not assessed. Four months later, she presented with a 2-week onset of fever joint pains, fast breathing and abnormal body movements of 2 days. The movements involved all limbs were writhing with jerking of the limbs and face, darting of the tongue and

spooping of the hands. She was unable to feed and had slurred speech. She was also in heart failure and had a pansystolic murmur at the apex with diastolic component. She had history of pharyngitis 2 weeks before the 2nd febrile episode. She was diagnosed with ARF comprising chorea, carditis and polyarthralgia. Erythrocyte sedimentation rate (ESR) was 97mm/hr. She received parenteral phenobarbitone, chlorpromazine in addition to antibiotics and anti-inflammatory medications. After 24 hours, phenobarbitone was changed to Sodium valproate. However about 30 hours after admission, she deteriorated and died.

Conclusion: The clinical course of this patient with chorea as her first presentation of ARF was severe. Efforts at good history and clinical examination would help to diagnose and treat Group A streptococcal pharyngitis which if not well treated heralds ARF.

Key words: Chorea, rheumatic fever, child, Sokoto

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PNEU-2: Diprosopus bicephalus tetraophthalmus, a rare craniofacial malformation: Case report

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Background: Diprosopus is an extremely rare form of craniofacial malformation seen in newborns where there is duplication of the face which may be partial or complete. The newborn usually has a single trunk and normal limbs.

Objective: The aim of this report is to reiterate the importance of a routine high resolution anomaly scan in early pregnancy in order to be proactive in the multidisciplinary management that such category of newborns will require.

Case report: We report a 4 week old case of facial diprosopus delivered in our institution to a 28 year booked para 1 woman and currently being managed by different specialties with the neonatologist heading the team.

Keywords: Facial diprosopus, neurulation

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PNEO-1: Newborn blood culture isolates: changing pattern or new blood culture method? Experience from federal teaching hospital Gombe

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Background: Nigeria has an incidence of neonatal sepsis of 18.3/1000 live births with an average mortality rate of 28%. This burden remains one of the highest globally.

Objective: We aimed to determine if there is any change in newborn blood isolates in our facility

Methods: Blood culture isolates (BCI) of newborns between 2008-2012 using the conventional method (CM) and those between 2015-2020 using Bactec automated blood culture system (ABCS) were compared. Sex, culture growth and bacteria were analyzed.

Results: There were 5276 blood cultures in children 0-18years between 2008-2012 by CM and 1169 between 2015- 2020 by ABCS. 2,115 BCI in neonates between 2008-2012 by CM and 361 by ABCS between 2015-2020 constituting 40.8 % and 31 % (361/1169) of all blood cultures in children 0-18 yrs respectively. 13.3 % (282/2115) of cultures by CM and 40.9 % (219/361) by ABCS were positive (p= 0.01). Gram Positive constituted 36 % (102/282) by CM and 54 % (188/219) p=0.01; gram negative was 64 % (181/282) by CM and 46 % (46/219) by ABCS p=0-01.

The BCI by CM in decreasing frequency included Klebsiella 37% (104/282); Staph. aureus 19% (54/280); Enterococcus 5% (14/282); Enterobacter 2% (6/282). By ABCS, Staph. aureus 50% (109/219); Alkaligenes 16 % (35/219); Citrobacter 11% (23/219); Pseudomonas 6% (13/219)

Staph.aureus by ABCS (109/219) by CM (54/280) p=0.01; Alkaligenes by ABCS (35/219) and CM (5/282) p=0.01; Citrobacter by ABCS (23/219); CM (4/280) p=0.01; Klebsiella by ABCS (18/219); CM (104/280) p=0.01

Conclusion: It's unclear if the significant difference in BCI in the newborn by the two culture methods has answered our research question.

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PNEO-2: Cord blood vitamin a levels and intraventricular haemorrhage outcomes in preterm infants

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Background: Intraventricular haemorrhage (IVH) is a major complication of preterm birth and large haemorrhages may yield significant future disability. Although multifactorial, prematurity and LBW are the most important risk factors for IVH. Also, being “born too soon” affects the accretion of Vitamin A(VA) which is essential for normal brain development.

Objective: We sought out to estimate VA nutrient levels among preterm newborn infants at birth and establish any relationship with IVH occurrence and grade severity.

Methods: Ninety infants were recruited over a 6 Months period .VA levels was determined by ELISA using cord blood and IVH was assessed by transcranial ultrasound scan done on the 7th day of life. Data analysis was by statistical package for social sciences IBM [SPSS] version 21. P-values of < 0.05 were considered as significant.

Results: The infants' median (IQR) for gestational age, birth weight, and cord blood VA levels were 32weeks (4.25weeks),1580g (650g), and 0.31µmol/L (0.19µmol/L) respectively. The prevalence of VA deficiency, Low VA, and Sufficient VA were 67.8 %, 25.5% and 6.7 % respectively. IVH was found in 8 (9.20%) infants, with incidence rates of 5.70%, 2.30%, and 1.10 % for Grades I, II and III respectively. Although statistically insignificant, the occurrence of IVH was only among infants with abnormal VA status at birth (p =0.65).

Conclusion: Despite low median cord blood VA level of preterm infants in this study, there is no impact on IVH occurrence or grade severity. Further study with larger sample size is warranted.

Key words: Intraventricular haemorrhage; Cord blood Vitamin A; Preterm

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PNEO-3: COVID-19 exposed neonates; our experience at Edward Francis small teaching hospital Banjul, the Gambia

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Background: The COVID-19 pandemic has led to significant changes in healthcare delivery and clinical management of pregnant women and their newborns as the

availability of healthcare resources, rates of infection, and scientific data continue to evolve. COVID-19 contagion is mainly through respiratory droplets or direct contact with infected subjects or contaminated surfaces. In neonates, vertical (intrauterine) transmission has also been postulated, but available evidence is insufficient to support this hypothesis

Neonatal SARS-CoV-2 infections are also extremely rare and, to date, there is no evidence of intrauterine infection caused by vertical transmission. As described in a case report and a case series, amniotic fluid, cord blood, neonatal throat swab, and colostrum samples collected from infected mothers were negative for COVID-19.

Objective: Over the one-year period we admitted only newborn who were COVID-19 exposed, as they were delivered to COVID-19 infected mothers. We decide to report these five cases to share experience and knowledge.

Case Reports: First case was a 2hours old 39 weeks old term male neonate delivered via Cesarean section (CS) to a 32 years old mother, indication being COVID-19 infected mother and severe preeclampsia. Baby developed difficulty in breathing and excessive crying.

Examination finding were term neonate, pink, weight was 3.7kg, anicteric and acyanosed. Random blood glucose was 5.2 mmol/L, haemoglobin concentration was 17.6gm/dl, PCV (52.8%). O₂sat was 100% at room air. Length was 51 CM, OFC was 35 CM.

The second patient was 15 hours old female delivered at gestational age of 32 weeks via EMCS indicated by severe preeclampsia in a young para-2 mother who is a medical Doctor working in emergency department for which she was admitted 2 days and was placed on anti-hypertensives. Birth weight was 1.33kg, BL-42 CM, OFC-31 CM SPO₂ was 95% at room air, RBG-6.5mmol/L, Pink, acyanosed and active

The 3rd Patient is 3 hours old female delivered via EMCS to 23 years old mother who is nursing officer working in the accident and emergency unit of Edward Francis Small Teaching Hospital Banjul the Gambia. Examination finding were otherwise unremarkable; however, weight was 2.2 kg, length of 47cm, HC of 35cm, temperature was 36.8oc, there were no dysmorphic features. Spo₂ was 96% at room air, raised to 100% on INO₂

The 4th Patient is 2 hours old male newborn delivered to 28 years old p4 at term. Delivery was per vaginam while being prepared for EMCS, cried well at birth and A/S was 8 and 9 at 1st and 5th minutes respectively. Liquor was not meconium stained and no history of PROM. He was tested also positive to COVID 19. Examination findings were; weight=2900gms, length=49cm, ofc=34cm, Spo₂=96% at room air.

Case number 5 was 4 hours old preterm female newborn delivered through EMCS due to eclampsia to 20-year-old primipara at GA of 34 weeks by Ballard. Mother had symptoms and signs of acute respiratory infections and was diagnosed with COVID-19 following positive test to COVID. She had spontaneous PPRM at 34 weeks gestation. She was pink, had subnormal temperature of 35.7°C, weight=1.9kg, length=44cm, and OFC=32cm

Spo₂=96% at room air.

Conclusion: Of the five newborns born to COVID-19 infected mother, only was confirmed to be COVID 19 infected. All the five cases were cared for as per protocol for COVID-19 exposed/patient. The course of diseases and care of all the newborns followed strictly in accordance with standard of operative procedures. Our patients spent minimum of 3 weeks in our care, they all re-united with their mothers and had commenced direct breast feeding without any difficulty. All the infants are doing well at exclusive breastfeeding.

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PNEO-4: Glucose-6-phosphate dehydrogenase deficiency among ICTERIC neonates in the University of Uyo Teaching Hospital

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Background: Glucose-6-phosphate dehydrogenase (G6PD) deficiency, an X-linked recessive disorder, is the commonest inherited red cell enzymopathy affecting mankind. It is a known cause of severe neonatal hyperbilirubinaemia that can result in permanent neurologic damage or death. The disorder is more commonly expressed in males compared to females and occurs most frequently in Africa, the Meditterean, and the Middle East. A number of triggers have been identified to cause haemolysis in these patients.

Objectives: To estimate the incidence of G6PD among icteric neonates admitted in the University of Uyo Teaching Hospital with the view of determining the incidence of G6PD deficiency.

Methods: One hundred and forty neonates were recruited into the study over a period of one year. Screening for G6PD deficiency was carried out using a quantitative in vitro test (Assay Pro). The data were analyzed with SPSS version 23.0.

Results: Out of 140 icteric neonates, 41 were deficient, one intermediate. The incidence of G6PD deficiency in jaundiced neonate was 29.3%, with a male to female ratio of 1.4:1.

Conclusion: The incidence of G6PD deficiency among neonates admitted in University of Uyo Teaching Hospital, Uyo, Nigeria is high. This underscores the need to screen all neonates with jaundice for G6PD deficiency in our hospitals.

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PNEO- 5: Newborn Screening for Sickle Cell Disease in Nigeria – Challenges and Opportunities.

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Background: Sickle cell disease (SCD) is an inherited

autosomal recessive disorder affecting red blood cells with high morbidity and mortality worldwide. Sickle cell anaemia (SCA) is the most common type of sickle cell disease. The United Nations has recognized SCD as a global public health problem and the World Health Organisation (WHO) had recommended that member states initiate National sickle cell control guidelines which are comprehensive by 2020.

While there has been significant improvement in outcomes for children with SCD in High-income countries due to factors such as early diagnosis through prenatal diagnosis, newborn screening programs, prophylactic therapy, hydroxyurea therapy and bone marrow transplant, low- and middle-income countries such as Nigeria still have a high disease burden.

Result: In most African countries including Nigeria, neither prenatal nor neonatal screening for sickle cell disease is readily available or affordable. Thus, in the absence of a routine newborn screening program, diagnosis is often made when patients show up with suggestive clinical features or based on request of parents or healthcare providers.

High Performance Liquid Chromatography is the gold standard for diagnosis of SCD in newborns, however it is expensive and needs expertise to function. An inexpensive and easy to use Point of Care Testing device is currently available and has shown high sensitivity and specificity in the detection of Haemoglobin genotype and can play a role in coordinated newborn screening for SCD in Nigeria.

Conclusion: Morbidity and mortality from SCD are preventable if children are started early on interventions like folic acid, administration of oral penicillin, immunizations, prevention and treatment of malaria. However, we will not know which child has sickle cell disease and will require special care if we are not routinely testing every newborn for Sickle Cell Disease

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PNEO-6: Pattern of neonatal mortalities in the special care baby unit of Federal Medical Centre Owerri

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Background: There has been a gradual decrease in the number of global neonatal deaths in the last three decades from 5 million deaths in 1990 to 2.4 million deaths in 2019. While childhood mortality has been declining rapidly, neonatal mortality has declined rather slowly and is still a major contributor to overall childhood mortality. Nigeria had a neonatal mortality rate of 35.9 deaths per 1000 live births in 2019. It is important to ensure periodic evaluation of the pattern of neonatal mortalities for proper documentation, policy making and the institution of measures aimed at reduction.

Objective: The aim of this study was to describe the pattern of mortality in the Special Care Baby Unit (SCBU) of the Federal Medical Center Owerri, over a 3-year period (1st June 2018 to 30th June, 2021).

Methods: The admission records of all the children who were admitted and died during admission in the Special Care Baby Unit (SCBU) of the Paediatrics department, Federal Medical Center, Owerri, were retrospectively reviewed and analyzed.

Results: A total of 1284 patients were admitted into the SCBU during the study period. The total number of patients who died was 220 with an overall mortality rate of 17.1% (23.2% in the out born and 13.0% in the inborn). The commonest cause of death was perinatal asphyxia (47.7%), followed by prematurity (28.2%) and Neonatal sepsis (11.4%). Majority (74.6%) of the deaths in the SCBU occurred after 24hours of admission. The prevalence of perinatal asphyxia as cause of death was higher in the outborn (53.7%) than the inborn (40.4%).

Conclusion: The mortality rate in this study was significant with perinatal asphyxia and prematurity being the commonest causes of death in the SCBU. A major proportion of the mortalities in this audit occurred after 24 hours of admission. The Mortality rate in the outborn was significantly more than that in the inborn patients. This was most likely as a result of poor neonatal services received from the referring health institutions and late presentation at the center. Concerted efforts towards intensifying prevention strategies such as training and retraining of healthcare workers, attendance of skilled birth attendants at every delivery and health education to improve the health seeking behaviour of families. These measures will reduce delay and subsequently lead to improved outcome.

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PNEO-7: Periodic review of positive blood cultures of neonatal patients in a tertiary hospital in Uyo

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Background: Neonatal sepsis is one of the leading causes of neonatal mortality and a major public health problem, especially in developing countries. constant surveillance and accurate data of the bacterial aetiology is crucial for success of chemotherapy and reduction of bacterial resistance. Periodic review of aetiologic agents and their antimicrobial sensitivity patterns provides the means to this end.

Objectives: This study therefore aims at comparing the aetiological agents of sepsis in the newborn unit of the university of Uyo Teaching hospital (UUTH) over a time period

Methods: This was a review records of blood cultures submitted to the Medical Microbiology Laboratory of the UUTH before and after the introduction of the Bac-talart system.

Results: The commonest agent in both reviews was staphylococcus aureus (70% and 73 % respectively). The occurrence of gram-negative organisms was equally comparable. The highest level of susceptibility among

(birth-weight=965g) to a 32-year-old G²P1⁺⁰ (1 Alive) booked mother admitted for poorly-controlled pre-eclampsia-superimposed-on-chronic-hypertension. Her routine antenatal tests were normal but 28-week Doppler-velocitometry showed “high resistant flow with absent end-diastolic flow suggesting foetus at moderate risk with tendency to asymmetric IUGR”; but no maternal risk factors for sepsis. Mother had two doses of dexamethasone. Post-resuscitation (suctioning, stimulation), we commenced CPAP, aminophylline, vitamin K, incubator care and later, prophylactic surfactant (unit protocol) which was followed by apnoea necessitating resuscitation. Thereafter, he was stable respiratory-wise but had intermittent fever despite antibiotics. On 3rd day-of-life, he became apnoeic, bradycardic, cyanosed, profusely bleeding from the nostrils/mouth; this persisted despite suctioning, bag-mask ventilation, vitamin K and intubation. Unfortunately, his platelets/blood counts samples was lost-in-transit. Post-mortem cranial USS suggested concomitant IVH.

Conclusion: Although *overwhelming sepsis with DIC* was a possibility in this baby, *PH* (also known to co-exist with IVH) occurred clinically, possibly temporarily-related to the SRT. Nonetheless, *PH* is rare- this is the only case out of over 100 babies that have had it in our unit.

Keywords: Alveolar bleeding, complications, surfactant replacement therapy (SRT), sub-Saharan Africa, case report, minimally-invasive surfactant therapy (MIST), less-invasive surfactant administration (LISA)

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PNEP-1: Assessment of the diagnostic values of urine microscopy in primary school children with asymptomatic bacteriuria in Enugu.

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Background: Urine microscopy test is a useful and commonly used test for diagnosis of urine infection because of its relative rapidity and low cost.

Objective: To determine the sensitivity, specificity and positive and negative predictive values of Pyuria and Urine microscopic bacteria testing in relation to urine culture which is the gold standard, in Enugu, Nigeria.

Methodology: This was a cross-sectional descriptive survey involving apparently healthy primary school children aged 6 to 12 years. A pre-tested, care-giver administered questionnaire was used to obtain information about the participants including age and sex. Following a clinical examination, a sample of spot mid-stream urine was collected from each participant for urine microscopy and urine culture.

Results: A total of 450 apparently healthy primary school children were enrolled into the study. One hundred and ninety-five (44%) were males while 255 (56%)

were females. The age range was 6 to 12 years with a mean of 10.13 ± 1.81 years. Ninety (20%) of the 450 urine samples had bacterial growth but only 73 (16.2%) had colony counts 10⁵ colony forming units (CFU)/ml and thus qualified as cases of asymptomatic bacteriuria (ASB). Pyuria had a sensitivity of 23.3%, specificity of 96.0%, positive predictive value of 54.2% and negative predictive value of 88.3% for ASB while microscopic bacteria had a sensitivity of 19.2%, specificity of 95.5%, positive predictive value of 47.6% and negative predictive value of 87.6% for ASB.

Conclusion: Positive urine microscopy test result can be a good predictor of positive urine culture because of its high specificity.

Keywords: Asymptomatic bacteriuria, Primary school children, Urine microscopy sensitivity and specificity.

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PNEP-2: Serum neutrophil gelatinase associated lipocalin, early biomarker of acute kidney injury in asphyxiated term neonates at Lagos State University Teaching Hospital

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Background: Perinatal asphyxia is the failure to initiate and sustain breathing at birth due to impaired gas exchange resulting in hypoxia, hypercapnia and metabolic acidosis. It is a major cause of morbidity and mortality worldwide, and frequently complicated by acute kidney injury (AKI) – an independent cause of mortality. Serum creatinine, the widely accepted method for diagnosing AKI is less sensitive marker, lags behind the onset of renal injury owing to the large glomerular functional reserve. Serum creatinine is largely fraught with limitations.

Serum NGAL identifies onset of structural damage (subclinical AKI) long before an overt functional injury becomes appreciable. However, only a few studies have explored the role of serum NGAL in the early detection of AKI in asphyxiated term babies in Nigeria.

Objectives: The index study thus aimed to determine the levels of serum NGAL in the asphyxiated term neonates as compared to the apparently healthy sex and gestational age matched controls, to determine the prevalence of AKI in asphyxiated term neonates using serum creatinine and urine output levels and to determine the utility of serum NGAL in the early detection of AKI in asphyxiated term neonates.

Methods: Descriptive cross-sectional study was conducted between August 2018 and March 2019 in the Maternity and New-born Units of the Lagos State University Teaching Hospital (LASUTH), Ikeja. Seventy asphyxiated term neonates with moderate or severe asphyxia and seventy non-asphyxiated term controls, were recruited at birth. Cord blood, and serial peripheral venous samples were collected at 6, 12, 24 and 48 hours of life for serum NGAL analysis. Serum creatinine was estimated at birth, 24 and 48 hours of life in the asphyxi-

Staphylococcus aureus in the Bactalert system was to Meropenem (100%), Vancomycin (91.43%), Imipenem (88.89%), Clindamycin (67.57%), and Azithromycin (60%),

Conclusion: Staphylococcus aureus remains the commonest aetiologic agent of neonatal sepsis. A growing need of use of the carbapenems and vancomycin currently calls for caution to avoid resistance.

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PNEO-8: The relationship between cord zinc and albumin levels in newborns and socio-demographic factors.

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Background: After Iron, Zinc is the next element for which human nutritional requirement has been established. Majority of Zinc in the blood is bound to Albumin.

Objectives: This study aimed to determine the Zinc and Albumin levels of newborns as well as to determine the relationship between the Zinc and Albumin levels and socio-demographic factors.

Methods: This cross-sectional study enrolled 120 subjects. Cord blood sample was taken at delivery. Serum Zinc and Albumin levels were determined using standard techniques.

Results: The mean birth weight of the newborns was 2.76 ± 0.64 kg. The mean gestational age was 37.38 \pm

2.59 weeks. The mean maternal age was 32.07 \pm 4.50 years. The median parity was 2(1.0 – 3.7). Of the subjects, 101 (84.2%) belonged to the upper socioeconomic class while 19 (15.8%) belonged to the lower socioeconomic class. Mean serum Zinc was 76.12

$\pm 26.70 \mu$ g/dl. Mean serum Albumin was 3.87 \pm 0.52 g/dl. There was a significant negative relationship between serum Zinc and parity ($r = -0.19$, $p = 0.036$). Serum Albumin had a significant positive relationship with birth weight ($r = 0.47$, $p = 0.001$) and gestational age ($r = 0.65$, $p = 0.001$).

Conclusions: Parity influences the newborn's serum zinc levels. Higher parity may cause low zinc levels in newborns, possibly due to depletion from the repeated reproductive events in the mothers. Zinc supplementation to newborns delivered to multi/grand multipara mothers is recommended. Serum albumin levels increase as birth weight and/or gestational age increases and vice versa.

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PNEO-9: Timing and causes of neonatal mortality at the university college hospital, Ibadan over a year period

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Background: The burden of neonatal mortality has remained high especially in Sub-Saharan Africa. The major causes have remained the same despite efforts to improve neonatal care globally.

Objective: To describe the causes of neonatal mortality and evaluate the timing and predictors of neonatal deaths at the University College Hospital, Ibadan.

Methods: This was a retrospective study of 140 neonates who died at the neonatology wards of the University College Hospital in the year, 2019. Data was obtained from the admission and mortality summary records of the wards.

Results: Out of the 962 neonates admitted, 140 died giving a mortality rate of 14.6%. Of those that died, 73 (52.1%) were males. 94(67.1%) were preterm and predominantly very low birth weight babies. 66(47.1%) died within the first week of admission and 74(52.9%) died after the first week. 74 (52.9%) had hypothermia on admission. Birth asphyxia (39%) and sepsis (39%) were the major causes of mortality. Predictors of early neonatal death included being very low birth weight, birth asphyxia and hypothermia. Most of the deaths involved babies admitted within 48 hours of life.

Conclusion: Prematurity underlies majority of neonatal deaths. The major causes of neonatal deaths were asphyxia and infections. The need to strengthen neonatal resuscitation, improve perinatal care and infection control are essential to curb needless neonatal deaths.

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PNEO-10: A fatal massive pulmonary haemorrhage presumably following surfactant therapy in an extremely low-birth weight infant: A case report

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Introduction: Pulmonary haemorrhage (PH), defined as alveolar bleeding visualised during tracheal suctioning or naso-/oro-pharyngeal secretions, is a rare but potentially catastrophic complication of preterm infants with about 50% fatality. It may follow surfactant replacement therapy (SRT); paradoxically, its treatment is also SRT! Despite having one of the world's highest burdens of preterm births, we found no published report on PH from Nigeria, hence this report.

Case: AB was born operatively at 29-week 5-day GA

ated term neonates. Adhesive urine bags were attached to the perineum for the purpose of urine collection and estimation. For the controls, cord blood serum NGAL and peripheral blood serum creatinine was obtained only at zero hour of life while urine output was collected in the first 24 hours of life.

Serum NGAL was analysed using the human NGAL ELISA kit (Bioporto diagnostics) while serum creatinine was estimated using the kinetic method described by Jaffe.

Results: The asphyxiated term neonates were found to have a mean serum NGAL levels of 86.28 ± 31.5 , 86.45 ± 32.2 , 89.27 ± 22.2 , 93.57 ± 26.5 and 101.57 ± 34.8 ng/ml at 0, 6, 12, 24 and 48 hours of life respectively. The serum NGAL levels in the asphyxiated neonates were significantly higher as compared to the serum NGAL level in the sex and gestational age –matched healthy controls at birth [86.28 ± 31.5 versus 30.21 ± 10.6 ng/ml], $p < 0.001$].

The prevalence of Acute Kidney Injury in asphyxiated term neonates using serum creatinine levels and urine output was 43 (61.42%). The utility of serum NGAL in the early detection of AKI in the asphyxiated term neonates was observed at birth with a cut-off of 90.14ng/dl, sensitivity 0.810 and specificity 0.735. The area under the curve (AUC) 0.777, 95% CL: (0.661-0.893, $P < 0.001$) determined at birth was the most ideal AUC and is therefore the most appropriate cut-off point for AKI using NGAL.

Conclusions: Serum NGAL is a more sensitive and specific marker of AKI as compared to creatinine in asphyxiated term neonates in Nigeria and it detects sub-clinical AKI while injury is still limitable.

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PNP-3: Urinary tract infection in children with acute diarrhoea attending a tertiary facility in Nigeria

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Background: Acute diarrhoea caused by rotavirus infection is common in infants and children. Urinary tract infection (UTI) is the second most common bacterial infection.

Objective: This study investigated the incidence of UTI and rotavirus infection in children aged less than five years presenting with acute diarrhoea to the Children Emergency Room of the University of Calabar Teaching Hospital.

Method: This was a cross sectional study. A total of 115 children were sequentially recruited. Urine and stool samples were aseptically obtained from each child. Urine sample was examined macroscopically for appear-

ance and microscopically for pus cells and bacteria. Urine samples were cultured on cysteine factors electrolyte deficient agar. The resulting bacterial growth was counted and recorded as significant or non-significant for bacteriuria using the standard loop method. Rotavirus assay was performed using Prospect Rotavirus microplate Assay method.

Result: Rotavirus was detected in 51 (44.3%) stool samples and three (2.6%) samples yielded bacteria. A total of 25 (21.7%) of the 115 urine samples were significant for bacteriuria. Twenty-five (25) were co-infected with rotavirus diarrhoea, of which 20 were in children less than 12 months of age. *Escherichia coli* was isolated in both urine (92%) and stool (66%) samples. Age and gender were not significantly associated with co-infection of acute diarrhoea and UTI. Children who were exclusively breast fed and those fed with family diet had a significantly lower co-infection of rotavirus and UTI compared to children on bottle (formula) feed (p -value < 0.05).

Conclusion: This study revealed a high incidence of co-infection of rotavirus and UTI in the study population. Therefore, in children with acute diarrhoea, investigation for UTI may be needful.

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PNEU-1: Chorea seen as first presentation of acute rheumatic fever in a child in Sokoto

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Background: Sydenhams Chorea, a major criterion in 15% of acute rheumatic fever (ARF) occurs rarely as the first presentation. Early recognition and appropriate treatment are essential to reduce morbidity and mortality. A case of a girl who presented with chorea after missed diagnosis of pharyngitis and died shortly after admission is reported to highlight this.

Case report: An 8-year-old girl first presented in February 2020 with body pains, neck pains and fever. History of pharyngitis was not assessed. Four months later, she presented with a 2-week onset of fever joint pains, fast breathing and abnormal body movements of 2 days. The movements involved all limbs were writhing with jerking of the limbs and face, darting of the tongue and spooning of the hands. She was unable to feed and had slurred speech. She was also in heart failure and had a pansystolic murmur at the apex with diastolic component. She had history of pharyngitis 2 weeks before the 2nd febrile episode. She was diagnosed with ARF comprising chorea, carditis and polyarthralgia. Erythrocyte sedimentation rate (ESR) was 97mm/hr. She received parenteral phenobarbitone, chlorpromazine in addition to antibiotics and anti-inflammatory medications. After 24 hours, phenobarbitone was changed to Sodium valproate. However about 30 hours after admission, she deteriorated and died.

Conclusion: The clinical course of this patient with cho-

rea as her first presentation of ARF was severe. Efforts at good history and clinical examination would help to diagnose and treat Group A streptococcal pharyngitis which if not well treated heralds ARF.

Key words: Chorea, rheumatic fever, child, Sokoto

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PNEU-2: Diprosopus bicephalus tetraophthalmus, a rare craniofacial malformation: Case report

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Background: Diprosopus is an extremely rare form of craniofacial malformation seen in newborns where there is duplication of the face which may be partial or complete. The newborn usually has a single trunk and normal limbs.

Objective: The aim of this report is to reiterate the importance of a routine high resolution anomaly scan in early pregnancy in order to be proactive in the multi-disciplinary management that such category of newborns will require.

Case report: We report a 4 week old case of facial diprosopus delivered in our institution to a 28 year booked para 1 woman and currently being managed by different specialties with the neonatologist heading the team.

Keywords: Facial diprosopus, neurulation

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PPUL-1: An audit of paediatric otorhinolaryngological clinic attendance at the rivers state University Teaching Hospital, South-South Nigeria: A 3-year review.

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Background: otolaryngological disorders vary among children due to diverse underlying aetiologies and pathologic processes.

Objective: This study audits the pattern of paediatric ear, nose and throat diseases seen at the Rivers State University Teaching Hospital.

Methods: medical records of children (aged 0 – 17 years) seen between 1st January 2018 and 31st December 2020 were retrieved and analysed using IBM SPSS version 25.0. Results were presented as frequencies and percentages for categorical variables and mean and standard deviation for continuous variables.

Results: a total of 5,533 paediatric visits were documented over the study period, making up 36.7% of all patients seen. There were 2,516 completed paediatric

medical records. Males slightly predominated accounting for 1,369 (54.5%), mean age was 6.77 years (SD ± 5.10) and ranged 2weeks to 17 years. Age groups 0-4 years were the most affected. Ear disorders were the commonest disorders found (1637, 65.1%), followed by throat/neck disorders (650, 25.8%) and then nose disorders (229, 9.1%). The top 2 disorders based on regions were as follows: Cerumen Auris (426, 16.9%) and Otitis Externa (252, 10.2%) for ear disorders; Chronic / Allergic rhinosinusitis (107, 4.3%) and foreign body in the nose (72, 2.9%) for nose disorders and Adenotonsillar hypertrophy (544, 21.6%) and speech disorders (23, 0.9%) for throat disorders respectively.

Conclusion: among the paediatric group of patients, ear disorders predominated. Cerumen Auris, Adenotonsillar hypertrophy and chronic/allergic rhinosinusitis were the commonest ENT disorders **Keywords:** Audit, ENT diseases, Paediatrics, Epidemiology, Rivers State, Nigeria

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PPUL-2: Antibody response to pneumococcal conjugate vaccine 10 among Nigerian children under 5 years

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Background: Invasive pneumococcal diseases have been a major contributor to childhood mortality, particularly in the developing world and pneumococcal vaccines were introduced to reduce the burden. The Pneumococcal Conjugate Vaccine 10(PCV 10) was incorporated into the Nigerian National Programme on Immunization (NPI) in 2014 to reduce the incidence of childhood pneumococcal infections.

Objective: This study was done to determine the immunogenicity of the vaccine in our climate.

Methods: This cross-sectional study was carried out between September 2019 and January 2020 at the Children Outpatient Clinic of the Federal Medical Center, Owerri, Nigeria. Two hundred and forty-five children between the ages of 20 weeks and 59 months, who had received three doses of Pneumococcal Conjugate Vaccine 10 (PCV 10) at 6, 10 and 14 weeks according to the NPI schedule, were recruited into the study. The anti-pneumococcal PCV 10 IgG concentration was determined using Human Anti-Pneumococcal CPS 10 IgG vaccine ELISA Kit ®. Simple proportions, means and median (as appropriate) were used to analyze the data. Kruskal Wallis test and Spearman's correlation were done to test association. Significance was set as p< 0.05.

Result: The mean anti-pneumococcal IgG concentration was 11.01±1.23 IU/ml and all the study participants formed protective levels of anti-pneumococcal IgG. There was a slight positive correlation between antibody response and age (r=0.13, p=0.038), and the antibody response was slightly more in males than females.

Conclusion: All the children under the age of five years

who had received PCV 10 at 6, 10 and 14 weeks of age, who participated in this study formed protective levels of antibodies to the vaccine. Antibody levels increased slightly with age. The PCV 10 currently used in the Nigerian programme is sufficiently antigenic and a downward trend in pneumococcal diseases should soon be noticeable.

Key words: Pneumococcal conjugate vaccine, antibody, children, Nigeria

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PPUL-3: Bronchopleural fistula complicating pneumonia – the importance of bedside clinical acumen and chest ultrasound combination

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Background: When assessing pneumonia clinically, physical examination and supportive in radiological investigations are imperative. Chest ultrasound however has a higher diagnostic accuracy than physical examination and chest radiography combined, and the advantage of less exposure to ionizing radiation, and the portability of most machines. This becomes important to combine bedside clinical acumen with chest ultrasound finding when faced with a complicated pneumonia that involves a possible bronchopleural fistula.

Case Report: AA is an 18-month-old female with a history of high-grade intermittent fever, cough and progressive fast breathing. Prior to referral, she had been managed for about a month and was transfused 10 days prior to referral. She was malnourished, pale, acyanosed with axillary temperature 37.4°C, SpO₂ in room air was 89%, respiratory Rate- 80/min, and a heart rate of 180/min. She had a tender hepatomegaly and a displaced apex beat. Chest examination showed decreased breath sounds with dull percussion note in right hemithorax. Initial investigations: CBC- HB 8.9mg/dl, raised WBC, ESR 95mm/hr, Mantoux was negative (less than 2 mm). Abdominal u/s- Normal liver and spleen echotexture, Intranasal oxygen intravenous antibiotics, anti-failure regimen and nutritional support were initiated. Chest X-ray showed a right-sided wedge-shaped middle lobe collapse consolidation with silhouette and no air bronchogram. There were several air pockets suspected to be spontaneous pneumatoceles, with a slight shift in mediastinum of a tension Pneumothorax. A diagnosis of hydro-pneumothorax was made. Insertion of intercostal drain (ICD) yielded an initial 350 mls of serosanguinous fluid with associated massive air 'gush' further pointing to air trapped under tension. Initial use of an improvised collapsible bag for ICD bottle had a massive ballooning out that was worse with change in position of patient. A further change to a rigid bottle showed continuous air bubbling in the underwater seal, apart from active swinging column in the tube. A bronchopleural fistula was considered but caregivers could not afford a chest

CT to further confirm this. Four days later a lung ultrasound showed presence of B lines, air bronchogram and hypoechoic regions of pleural effusion. Parts of the lung ultrasound further revealed a lung point and absence of the seashore sign on M mode, thus confirming that a pneumothorax was still present. The bedside observation and the lung ultrasound supported the presence of a bronchopleural fistula and this enabled a decision that averted premature removal of the intercostal drain. At the time of report the child was on 4th week of admission with complete resolution of fever, no longer requiring oxygen, and gradual re-expansion of the right lung.

Conclusion: Clinical acumen and lung ultrasound skills in resource poor settings should be encouraged and scaled up as it assists in very important decisions where more expensive or sophisticated tools are not immediately available.

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PPUL-4: Direct and indirect costs of non-surgical treatment for acute tonsillitis in children in South-east Nigeria.

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Background: Acute tonsillitis has become one of the main reasons why children visit healthcare facilities in Nigeria. Presently, there is no information on the costs of its treatment and this study aimed at determining these costs.

Methods: The study was conducted in two hospitals located in southeast Nigeria. The information was obtained in two ways: (1) retrospectively from the medical records of children treated for acute tonsillitis over 5 years and (2) cross-sectionally from children who presented with complaints of acute tonsillitis over 7 months. The information obtained was the costs of self-medication and hospital treatment, and the payment mechanisms used to settle these costs. The human capital method approach was used to estimate the indirect cost (loss in productivity) from the caregivers' absenteeism from work.

Results: The mean costs of self-medication and hospital treatment for acute tonsillitis in children were ₦3.85 and ₦3.48, respectively. The indirect cost was ₦1.31. The mean total cost of treatment of acute tonsillitis was

€23.80. The proportion of households that suffered catastrophic health expenditure (CHE) from the treatment of acute tonsillitis was 55 (55%). CHE was highest [22 (91.7%)] in the lowest socioeconomic quartile compared to households in the highest quartile [4 (16.7%)], and the difference was statistically significant ($p = 0.02$). Of the 72 participants whose payment mechanisms were documented, the proportion who paid out of pocket was 53 (73.6%), and 19 (26.4%) used the National Health Insurance Scheme.

Conclusion: The costs of treatment for children with acute tonsillitis were high, and most of these costs were settled out-of-pocket. The costs for laboratory investigations, drugs, and productivity loss contributed to these high costs. There is a need to cover the costs of non-surgical treatment of acute tonsillitis in social health insurance and improve efforts to increase the coverage of the health insurance scheme.

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PPUL-5: Dramatic resolution of severe potentially-fatal respiratory distress syndrome following surfactant therapy in a Nigerian preterm infant- a case report

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Background: Respiratory Distress Syndrome (RDS) [hyaline membrane disease] is primarily due to surfactant deficiency in preterm infants. Alongside sepsis, it is the commonest cause of preterm-associated mortality in Nigeria. Currently, its optimal management includes continuous positive airway pressure (CPAP), and early selective surfactant replacement therapy (SRT) which had been very scarce in Nigeria, until recently with increasing availability of relatively-cheap bovine lipid-extract surfactant (BLES®).

Objective: We report a low-birth-weight infant with a potentially-fatal RDS successfully reversed with SRT.

Case report: A 29-hour-old female preterm (GA=33weeks, birth-weight=2,000g) was referred to our ER with fast/noisy breathing, cyanosis and oxygen-dependence since shortly after birth. Symptoms progressively worsened despite intranasal oxygen-supplementation. She was born operatively due to a 4-day PROM. Examination showed severely dyspnoeic (flaring, intercostal/subcostal recession with see-saw abdominal movements, grunting), desaturating infant (SpO₂: 50-60% on room air; 85% on 100%-oxygen). Clinical diagnoses were RDS, congenital pneumonia and congenital heart disease. Improvised bubble-nasal CPAP and antibiotics were commenced but respiratory distress (RD) worsened till 12th-hour post-admission when she became lethargic and had several apneic episodes requiring positive-pressure ventilation. She was

too unstable to be moved for CXRay. At 25-th hours post-admission, she had 10ml of BLES® intra-tracheally (Hobert-method). Post-SRT: SpO₂ normalised within 2 minutes; RD improved within 1 hour, resolving completely by 24th-hour; oxygen-therapy was discontinued by 52nd-hour; and baby was discharged by 3rd-day.

Conclusion: RDS may occur in larger preterm infants, especially those whose mother had no steroids. SRT has potential to salvage preterm infants with RDS with, or at risk of, CPAP failure.

Keywords: Neonatal respiratory distress, surfactant replacement therapy (SRT), sub-Saharan Africa, case report, minimally-invasive surfactant therapy (MIST), less-invasive surfactant administration (LISA)

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PPUL-6: Superimposed fungal pneumonia complicating cavitary tuberculosis: A case report

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Background: Tuberculosis remains a communicable disease of global significance with a high prevalence in sub-Saharan Africa and Nigeria. Superimposed fungal infections occur in patients with immune suppression like tuberculosis and also have been documented in patients on prolonged oxygen therapy. Similarities in the presentation of the two conditions requires high index of suspicion to avert morbidity and mortality.

Case report: A five-and-a-half-year-old boy being managed for disseminated tuberculosis represented after 3-months of starting therapy with recurring fever, cough, difficulty in breathing, progressive weight loss and body swelling. Initial diagnosis was based on suggestive chest x-ray and a reactive sputum gene Xpert sensitive to rifampicin. Child had been fully immunized. He was wasted, in severe respiratory distress, cyanosed SP02 (66%) with finger clubbing. He also had pitting oedema up to the knees and generalized lymphadenopathy.

Results: Repeat investigations after 3-months on intensive phase of anti TB showed sputum GeneXpert still detected MTB with no RIF resistance, ESR was 120mm/hr. Chest x-ray showed multiple thick-walled cavities in the middle and lower lung fields bilaterally with relative sparing of both upper lung zones with background non-homogeneous opacities noted in both lungs, features suggestive of Tuberculosis probably atypical. Chest CT scan was suggestive of active pulmonary tuberculosis with multiple cavities, a suspicion of a fungal colony in the left apical cavity. A diagnosis of disseminated tuberculosis at risk of treatment failure complicated by fungal infection likely Aspergillosis was made.

Conclusion: Child was recommenced on antituberculosis therapy, voriconazole and nutritional rehabilitation. Child did well on above therapy and presently gaining weight.

Key-words: *Disseminated tuberculosis, Fungal infection, Aspergillosis*

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PPUL-7: The pattern of respiratory diseases among children admitted at the children emergency ward, university of Port Harcourt teaching hospital, rivers state

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Background: Respiratory diseases are common causes of childhood morbidity and mortality worldwide. Variations in the pattern of respiratory diseases exist globally, due to environmental conditions, poverty, hygiene and so on.

Objective: This study sought to determine the pattern of respiratory diseases among children admitted in the emergency ward.

Methods: This was a retrospective case series study. Data were collected from case notes of 3,851 children, aged two months to 18 years, admitted in the University of Port Harcourt Teaching Hospital, over a three-year period.

Results: Respiratory diseases accounted for 500 (13%) of the total admissions, and were commoner in males than females (M:F = 1.3:1). The mean age of children with respiratory illnesses was 2.27±4.6 years. Males were 1.2 times more likely to have a respiratory morbidity compared to females. Infectious causes {443 (88.6%)} were significantly higher than non-infectious causes {57 (11.4%)}, $p < 0.001$. Bronchopneumonia, bronchial asthma and bronchiolitis were the commonest morbidities seen, accounting for 394 (78.8%), 34 (6.8%) and 22 (4.4%) of cases respectively.

Conclusions: The prevalence of respiratory diseases is high. This results in a strain in the healthcare system and imparts negatively on the quality of life of children. Practical measures are needed to address this as its causes are largely preventable.

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PSOG-1: Juvenile commercial sex worker: A consequence of unsupervised parental care – case report

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Background: Sexual abuse of children occurs at alarming rates worldwide. It is a global health concern due to the damaging effects it can have on the physical, emotional and psychological health of the child. The consequences often last into adulthood, and could even interfere with the individual's life course. Female children are especially, more vulnerable to abuse and exploitation. This is however, predictable and preventable.

Objectives: This seeks to highlight certain circumstances

or situations that increasingly predispose a child to a higher risk of abuse and re-emphasize the importance of proper parental supervision and care as a positive factor in preventing unwholesome child sexual abuse.

Methods: A report on a fifteen-year-old pre-menarchal female who presented at the Children Emergency Unit (CHEU) of the University of Uyo Teaching Hospital, with symptoms and signs of an acute abdomen. This occurred as a complication of sexual abuse from multiple partners. Patient's elder sister was noted as a significant negative influence on child's social and sexual behaviour. She was co-managed, with the Gynaecological team. Reports from her treatment, progress and ultimate discharge were documented.

Results: Pelvic infection and endometrial collection were confirmed, and treatment instituted. She was counselled and sent home in better condition, with follow-up of the social welfare unit.

Conclusion: Child sexual abuse can often be prevented by proper parental provision, guidance and care. There is need to empower the girl-child educationally, and indeed socially with proper lifestyle values and behavioural principles, to curb the incidence of abuse.

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PSOG-2: Has the COVID-19 pandemic affected the utilization of paediatrics medical services at a rural tertiary hospital in Jigawa State?

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Background: Covid 19 pandemic has caused significant disruption in the health services in the developed world which mostly resorted to telemedicine to overcome the effect of the disruption of the child health services occasioned by the pandemic. However, the nature and extent of the changes in health care services by children may differ by settings. The knowledge of the utilization will be useful to health care organizations and policymakers.

Objectives: To evaluate the difference in outpatient visits during the pandemic year 2020 and pre-pandemic year 2020. To assess the hospitalizations for Paediatrics medical cases during the pandemic year 2020 and pre-pandemic year 2020

Methods: This retrospective analysis was conducted at the Paediatrics department of federal medical Centre Birnin Kudu, Jigawa State. The department provides outpatient, inpatient, and neonatal care to children from birth up to the age of 14 years. The number of children that utilize our facility between march to February 2019 pre-pandemic was compared to the corresponding period in the 2020 Covid era.

Results: The outpatient visits during the pandemic surged by about 22% (4196 vs 5326). The inpatient's hospitalization at the emergency Paediatrics units reduced by about -27.1% (805 vs. 631) so also admission due to respiratory diseases also reduced (65 vs. 46). Neonatal care admissions also reduced during the pandemic by about 30%. There was slightly lower mortality

recorded during the pandemic (8.4% vs 9.4%) but case fatality rate for respiratory diseases were 43.5% during the pandemic compared to 10.7% pre-pandemic.

Conclusion: This study showed an unexpected increase in outpatient care utilization but predictably low hospitalization amongst children during the pandemic. Although the decreased utilization may not be unrelated to movement restrictions and fear of contracting the disease, there is a need to ascertain how this affected the morbidity and mortality of children in the community.

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PSOG-3: Osteogenesis imperfecta in a term neonate: A case report

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Background: Osteogenesis imperfecta (OI) is a rare heterogeneous group of connective tissue syndromes characterized primarily by liability to fractures throughout life. We report a case of a neonate who presented within few days of birth following home delivery

Case Report: F.K presented at 64hours of birth with complaints of abnormality of the limbs noticed at birth. The pregnancy was term and uneventful. Delivery was at home and unsupervised. Child cried immediately after birth. No antenatal ultrasound was done and no maternal history of febrile illness during pregnancy. The mother had no exposure to irradiation or use of herbal medications. Essential findings on examination were dysmorphic facie with triangular shaped face, blue sclera, shortening of the limbs with anterolateral bowing of the legs. Had swelling and tenderness of the left arm. Baby was fussy and cries to touch. Babygram done shows multiple fractures involving the lower limbs and upper limb. X-ray of the limbs shows, generalized osteoporosis, bowing deformities of both upper and lower limbs, fractures involving the proximal and distal femoral and distal tibial shafts and mild reduction in the heights of the lower thoracic and lumbar vertebrae.

A diagnosis of Osteogenesis imperfecta (OI) was made. She had serial casting done with marked improvement in bone union. She was placed on calcium and vitamin D treatment and is currently being followed up at the clinic

Conclusion: Presentation of tender limbs with multiple deformities should prompt consideration of diagnosis of OI in the neonatal period.

Key words: Osteogenesis imperfecta, Nigeria, Case report

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PSOG-4: Audit of childhood mortalities among children seen at the emergency paediatrics unit of the Federal Medical Center, Owerri, Nigeria

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Background: The efforts to reduce global child mortality has yielded fruits with remarkable improvement in child mortality indices. However, the burden has remained heavy in sub-Saharan Africa, with this region accounting for 53% of the global figure. In Nigeria, the national under-five mortality rate for 2019 was 117 deaths per 1,000 live births, compared to the global rate of 38 per 1000 live births. Periodic evaluation of the pattern of mortality and its determinants are important for documentation, policy making and the institution of preventive measures.

Objective: The aim of this study was to describe the pattern of mortality in the Emergency Paediatrics Unit (EPU) of the Federal Medical Center Owerri, over a 3-year period (1st July 2018 to 31st June 2021).

Methods: The admission records of all the children aged zero to eighteen years, who were admitted and died during admission at the Emergency Paediatrics Unit (EPU) of the Paediatrics department, Federal Medical Center, Owerri were retrospectively reviewed and analyzed.

Results: A total of 3373 patients were admitted into the EPU during the study period with 246 deaths, giving a mortality rate of 7.3%. Majority of the deaths during the study period occurred in 2020 as there were 99 mortalities which accounted for 40.2% of the total mortality. Sepsis was the most common cause of death in the EPU accounting for 43.1% (106) of all mortalities this was followed by malaria (12.6%) and acute diarrhea (6.5%). Majority of mortalities 163 (66.3%) in the EPU occurred within 24 hours of admission, with 87.7% of them being under five years. The median age of mortality in the EPU was 10 months and the ratio of under 5 to above 5 years mortality was 8.5:1.5.

Conclusion: The mortality rate in this study is significant, with sepsis and malaria as the commonest causes of death in the EPU. A huge proportion of the mortalities in this audit, occurred among children under five years, with majority dying within 24 hours most probably due to late presentation. The high rate of mortality in 2020 was most likely as a result of disruption of child health services due to the COVID 19 pandemic. It is therefore recommended that other health services should not be neglected because of a pandemic. Efforts should be made to intensify prevention strategies such as health education to improve the health seeking behavior of families and avoid delayed presentation. In addition, there is strong need to improve emergency services and train health workers on emergency paediatric care.

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PSOG-5: Obstacles to the promotion of optimal breastfeeding practices at the University of Port Harcourt teaching hospital, Nigeria

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Background: The 1990/2005 Innocenti Declarations not only reiterate the benefits of breastfeeding but also recommend a child feeding ideal that can be achieved by creating an appropriate environment of awareness and support for women to optimally breastfeed their infants. The Baby Friendly Hospital Initiative Committee (BFHIC) of the University of Port Harcourt Teaching Hospital (UPTH) was established in 1992 with the mandate to promote, protect and support optimal breastfeeding practices within and outside the hospital thereby contributing to improved child survival.

Objective: From 2011 to date, many obstacles to optimal breastfeeding promotion have evolved and are here highlighted for mitigation.

Methods: Data presented were extracted from the records of activities of the BFHI Committee from 2011 to date.

Results: In spite of the continued efforts to achieve its mandate, the following obstacles impacted negatively on breastfeeding promotion by the BFHIC: Lack of Funding resulting in the celebration of WBW 2019 and 2021 WBW with zero budgetary allocation and non-implementation of planned programmes, including capacity development; Aggressive marketing activities of Infant food manufacturers among health workers within and outside the hospital thereby creating Conflicts of interest; Lack of community support structures to support the implementation of Step 10 of the Ten Steps to Successful Breastfeeding; Lack of dedicated breastfeeding counselors to provide skilled support to mothers and Declining commitment of stakeholders to the promotion of breastfeeding

Conclusions: Optimal breastfeeding practices remain critical to child survival but require continued promotion with the removal of identified obstacles.

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PSOG-6: "I don't want to bring shame upon my family": A case of suicide in an adolescent girl

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Background: Suicide is the second leading cause of death among young people aged 15-29 years. The rate decreased during the 1990s but increased again in the

early 2000s.

Case report: A 16-year-old girl presented with a six days history of ingestion of herbicide, three days history of vomiting of blood and two days history of yellowish discoloration of the eyes. She was three months pregnant and ingested herbicide to kill herself so as to prevent bringing shame on her family. She started vomiting after taking the poison, it contained recently ingested foods, and she had several episodes, volume of 20-30mls. However, 3 days later the vomitus became bloody with clots of blood, there was also history of passage of melena stools. She developed yellowish discoloration of the eyes 2 days prior to presentation and severe body weakness. All other systemic review were nil of note.

On examination, she was severely pale, icteric, with petechial haemorrhages on her tongue. Pulse Rate (PR) - 112bpm, Blood Pressure (BP) - 120/80mmhg, epigastric tenderness, gravidly enlarged uterus, Respiratory rate (RR) -30cpm.

Diagnosis was attempted suicide with severe anaemia due to upper GI bleeding. Results- PCV-24%, E/U/Cr-Deranged, LFT- Derranged. Treatment -IV N/S and omeprazole, Vitamin C and E, She was started on blood transfusion. She became dyspneic and saturating at 31%. Patient started gasping and died 12hrs on admission despite resuscitative measures.

Conclusion: The rate of suicide among young people is on the increase and efforts should be put in place to stem this trend.

Keywords: Adolescent, Herbicide, Suicide.

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PSOG-7: Child sexual abuse: Report of 2-cases

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Background: The infringement on the sexual rights of the child is referred to as child sexual abuse or assault. Apart from the physical scars, there are associated psychological consequences on the victims. It is an important social problem with paucity of local data.

Objective: These 2-cases of victims of child sexual abuse by minors who presented at the emergency units of the hospital were treated and to suggest solutions on how to curb this social problem.

Case: The first was Miss OT a 4-year-old Nursery 3 pupil brought in by her mother at the Paediatric and Obstetrics/Gynaecology units of a private hospital, with complaint of rape by a 14-year-old minor boy. The second was a 6-year-old primary 1 pupil who presented at

the Paediatrics and Obstetrics/Gynaecology department of University of Port Harcourt with complaint of rape by a 15-year-old minor next-door neighbour one week prior to presentation. They were managed accordingly and the necessary medico-legal protocols taken.

Conclusion: Child sexual abuse is not uncommon in our environment based on the information gotten from the media space on a daily basis. Multidisciplinary management approach should be instituted for the abused involving the clinical psychologist, psychiatrist, paediatricians, gynaecologist, child rights lawyers, security agencies and other professionals. The law should be allowed to run its course as the victims go through a lot, with psychological scars taking a long time to heal.

Key words: child, sexual, abuse, minor

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PSOG-8: Paediatricians' involvement in community child health in Nigeria: So far how far?

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Background: Community child health activities are considered an important professional role of Paediatricians as a child advocate. However, practice constraints and personal factors may limit involvement.

Objective: The objective was to analyze community involvement of paediatricians in 2017 and factors associated with participation.

Methods: It was a self-administered questionnaire of all Paediatricians at the annual conference of Paediatrics Association of Nigeria (Panconf) 2017 at Zaria, in Nigeria. Questions on involvement in community child health outside of their clinical practice were elucidated. This included questions related to school health programme. Their willingness to volunteer and the timing of formal training were sought. We used Chi square to measure associations of personal and practice characteristics. Logistic regression assessed independent contributions.

Results: Analysis of national surveys of paediatricians at PANCONF 2017, showed there were total of n = 260 in attendance. Fewer paediatricians were involved in community child health in 2017 (35.1%) outside their routine work, with a higher percentage participating as volunteers (79.5%). Most reported formal training at residency (80.2%). The older age, having children older than 5 years, urban settings and formal training were significant. In adjusted models, older age and formal training were associated with involvement (P < .05).

Conclusions: Formal training during residency and older paediatricians are associated with community child health activities. Therefore, intensification of competencies and other community child health skills for all residents are advocated

Key Words: Paediatricians, involvement, community, child health

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PSOG-9: Pattern and outcome of diseases among children presenting in the emergency room of a tertiary hospital in Port Harcourt, Nigeria

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Background: Children Emergency care is a critical aspect of Paediatric health care. Evaluation of the Emergency room would audit the quality of care provided and give insight to the epidemiology of the diseases that cause morbidity and mortality.

Objective: To determine the pattern and outcome of diseases seen in the children Emergency room.

Method: This was a retrospective review of the Children Emergency room register of the River State University Teaching Hospital, Port Harcourt Nigeria from Jan 2015 to May 2017.

Results: A total of 1965 patients were evaluated, there were more males 1082(55.1%) with M: F ratio of 1.3 :1, their ages ranged from one day old to 16years old with 62% (1215) aged <2yrs old. The five common indications for Emergency room visits were all infectious diseases and they include Malaria: 360(18.3%), Sepsis: 234 (11.9%), Gastroenteritis: 193(9.8%), bronchopneumonia: 155(7.9%), and Meningitis/acute seizures: 133 (6.8%). The common noninfectious indications were trauma: 115(5.9%), Acute asthma: 103(5.2%), and sickle cell disease: 81(4.1%). Among the children who visited the Emergency room for a consult, 886(45.1%) were not admitted, 893(45.5%) of them were discharged, mortality was recorded in 62(3.2%) and 81 (4.1%) left the hospital against medical advice.

Conclusion: Children within the first 5-years of life constituted the most paediatric age group seen in the Children Emergency room with male predominance. Infectious diseases accounted for more than two-thirds of the cases.

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PSOG-10: pattern of admissions into the children emergency ward of the University of Port Harcourt Teaching Hospital, Port Harcourt

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Background: The pattern of admissions into the Children emergency ward varies among health care facilities and regions. A knowledge of this pattern could be a guide to enable emergency care teams prepare for optimal care provision. It will also help in the design of control measures against the diseases identified.

Objective: The aim of this study was to review the pattern of admissions into the Children emergency ward of the University of Port Harcourt Teaching Hospital.

Methods: A retrospective review of the admissions into the Children emergency ward from 1st January 2020 to 31st December 2020 was conducted.

Results: A total of 1184 children were admitted in the period under review. This consisted of 640 (54%) males and 544 (46%) females giving a male to female ratio of 1.2:1. The ages of the study participants ranged from one month to 17 years with a mean age of 7.22±5.10 years. The most common disease conditions diagnosed were Pneumonias (15.8%), Malaria (15.2%), Diarrhoeal disease (15.1%), Sickle cell disease (9.8%), Meningitis (9.0%), Acute surgical abdomen (6.0%) and Sepsis (4.9%). Anaemia and undernutrition were reported in 206 (17.4%) and 109 (9.2%) of the patients respectively. The highest admission rates were recorded in the months of January to March.

Conclusions: Pneumonias, Malaria and Diarrhoeal disease remain important contributors to hospitalizations in our emergency room. Prevention and control measures need to be strengthened at all levels to reduce this trend.

Keywords: Admissions, Children, Emergency ward, Port Harcourt.

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PSOG-11: Prescription audit in the rivers State University Teaching Hospital, Nigeria

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Background: The prescription order is a legal document comprising instructions for medications by a licenced medical practitioner to a pharmacist and serves as a means of communication between the prescriber, dispenser and the consumer/patient. It is the ethical and legal duty of the medical practitioner to write complete and legible prescriptions.

Objective: The aim of the study was to audit the patterns of prescription writing by doctors by accessing completeness in patient information, prescriber information and drug prescribing indicators according to the World Health Organization (WHO) standards.

Methods: This was a retrospective study of prescription order forms at the Rivers State University Teaching Hospital (RSUTH), from January 1st to June 30th, 2020. The patient's name, hospital/folder number, age, sex and weight were grouped as patient identifier information; the drug identifier and instruction information consisted of the drug name, route of administration, dosage of the drug and duration while the prescriber identifier information included name of prescriber, signature and legibility of writing. The overall points include the above stated information and prescription origin identifiers like department and date. A maximum overall score of 14 points was given for all filled sections, 0 point was given when a section was not filled. Each section score was expressed as a percentage of the maximum mark. International non-proprietary or Generic drug names were identified using drug formularies.

Result: A total of 1,170 prescriptions were evaluated.

An average of 78.3% of all the needed information was written consisting of 60% of patient identifier information, 80.3% of drug identifier information and 94.6% of doctor identifier information. The mean number of drugs prescribed per patient encounter was 3.2±2 and only 43.2% of prescriptions contained generic names. The overall mean compliance to entry of drug identifier details from the prescriptions was 83.5% ± 0.71 while 5.3% of the writings were not legible.

Conclusion: The prescription quality among health workers was deficient in both patient information and prescribing indicators as recommended by the WHO standards. All cadre of doctors need to be sensitized about rational prescribing through training, routine assessments, monitoring and offering non-judgmental feedbacks. Regularly conducted prescription auditing can aid improved prescription quality as well as quality of patient care. There is a need to develop a standard prescription policy in RSUTH to help improve prescribing standards and minimize prescription errors.

Keywords: Prescription order, Audit, Rivers State University Teaching Hospital, Prescribing indicators

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PSOG-12: Prevalence of substance abuse among adolescent secondary school students in Umuahia, South-East Nigeria

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Background: Substance abuse has remained a public health burden especially in resource constrained settings like Nigeria. The prevalence of adolescent substance abuse has not been documented in our local setting and reports in surrounding cities suggest a rising trend over the years. This justifies the need for regular drug surveys to enable us understand the scope of the burden and how best to contain it.

Methods: A cross-sectional descriptive study of 400 adolescent secondary school students in Umuahia. The WHO student drug use questionnaire and UDT were used to obtain data on substance abuse. These data obtained were analyzed using SPSS version 20. Chi-square was used to test significant association for categorical variables. P-value <0.05 was considered as significant.

Results: A total of 365 (91.3%) were lifetime substance abusers while 227 (56.8%) were current substance abusers by self-report. On-site urine drug test was positive in 154 (38.5%) participants with significant differences in the proportion of self-reported male and female current abusers in the mid ($\chi^2 = 15.06$, $p = 0.0001$) and late ($\chi^2 = 13.9$, $p = 0.0002$) adolescent age groups. There was no sex difference for both the mid ($\chi^2 = 0.004$, $p = 0.95$) and late ($\chi^2 = 2.980$, $p = 0.084$) adolescents by UDT.

Conclusion: Prevalence of substance abuse among adolescent students in Umuahia is higher than has been re-

ported in other parts of Nigeria. The lifetime and current abuse by self-report were 91.3% and 56.8% respectively while the rate obtained by UDT was 38.5%. Efforts should be geared towards reducing this rising societal menace among our adolescent children.

Key words: Prevalence, adolescent, substance, abuse, school, students

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PSOG- 13: Prevalence of female genital mutilation and its impact on sexual behavior of reproductive women in a selected local government area of Ibadan, Nigeria.

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Background: Female genital mutilation /cutting of any type has been recognized as a harmful practice and a violation of the human rights and abuse of girls and women (WHO, 2008). FGM/C is a complex and deeply rooted sociocultural custom. It is usually performed in children aged 1 month -15 years and is therefore relevant to paediatric practice.

Objective: The objective of the study was to examine the prevalence and impact of FGM/C on the sexual behaviour of women in Ido Local Government Area, Ibadan, Nigeria.

Method: A descriptive, cross-sectional research design was used. Three hundred and thirty-five respondents were consecutively selected. Data were analyzed using chi-square and hypotheses tested at 5% level of significance.

Results: Findings revealed respondents (60.0%) were between 26-30 years. Majority of women 230 (64.7%) were not knowledgeable about FGM/C and were circumcised at an early age while 126 (37.6%) do not know all forms of FGM/C are harmful. Majority of respondents 203 (60.6%) claimed genital tears during labour is the most possible complication they experienced and do not enjoy sex while 42.1% and 42.4% had vaginal discharge as well as a scar in the vaginal region respectively as some of the effects of this procedure.

Conclusion: In conclusion, there is a high prevalence of FGM/C in Ido L.G.A, even though many of them would not have their daughters circumcised and there are high health impacts on their sexual behaviour. A sustainable and community-targeted approach in eliminating FGM/C is required and recommended.

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PSOG-14: A presentation on sirenomelia, an extremely rare congenital malformation, seen in university of Nigeria teaching hospital, Enugu, Nigeria.

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Background: Sirenomelia, also known as Mermaid Syndrome, is a form of Caudal Regression Syndrome characterized by fusion of the lower limbs with resultant infant bearing a semblance to the mermaid of ancient Greek mythology. The objective of this clinical case report is to highlight its modes of presentation and general outcome.

Case Report: We herein report a case of a late preterm delivered through emergency lower segment caesarean section, following deteriorating vitals, at 35weeks GA in our facility to an un-booked 28year old G₄P₃⁺⁰A₃. The baby did not cry at birth and had morphological abnormalities like fusion of the entire lower limb with a common skin covering, fusion of the feet giving a flipper-like, common foot and absent external genitalia, urethral and anal meatuses. Immediate resuscitative measures were commenced with no significant improvement and baby was certified dead twenty minutes later. Cultural beliefs, however, precluded autopsy.

Conclusion: The outcome of Sirenomelia is guarded even when strict protocol is followed and treatment is usually difficult and expensive. Knowledge of this peculiar syndrome is important to dissipate cultural myths, prevent stigmatization and encourage autopsy for further research.

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PSOG-15: Sociodemographic correlates of work-related stress among child health care workers in Nigeria

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Background: Work Related Stress (WRS) refers to the harmful physical and emotional response that results from a mismatch between the requirements of a job and the capabilities, resources, or needs of the worker in the work environment. WRS in hospitals has been linked to low job satisfaction, reduced efficacy, poor health services rendered and an increase in occupational accidents among doctors and other health workers.

Objective: This study aimed to assess work-related stress and its socio-demographic correlates among child

health care workers in Nigeria.

Methods: A cross-sectional descriptive study was done on child health care workers attending the 51st anniversary of the Paediatric Association of Nigeria conference (PANCONF) in Kano, Nigeria. There were 231 respondents, who cut across the six geopolitical zones of Nigeria, consisting of paediatric Consultants, Residents and Nurses. The study was done using self-administered questionnaires. Work related stress was assessed using the validated Cohen's scale and data analysed using SPSS version 20.

Results: There were 138 (59.7%) females and 93 (40.3%) males. 41.6% of respondents were Consultant paediatricians. 96 (41.6%) respondents were within the 30-39 age bracket while 192(83.1%) respondents were married. 60 (26%) participants practised in the North-Central region of Nigeria while 78 (33.8%) respondents had been in medical practise for 10-14 years. The prevalence of Work-related stress was 37.7%. Work-related stress was significantly higher among females, participants aged 30-39 years, the unmarried and among healthcare workers practising in facilities below secondary level.

Conclusion: The prevalence of work-related stress among child health care workers is high. There is a need for provision and organization of regular practical sessions on stress mitigation strategies by the Paediatric association of Nigeria.

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PSOG-16: Subcutaneous emphysema complicating convalescent stage of measles in a malnourished in digent child: A case report from north-western Nigeria.

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Background: Measles is a highly infectious vaccine-preventable viral disease that runs a devastating course in developing countries due to its association with malnutrition and poor immunization coverage. Subcutaneous emphysema is a rare complication of measles that can be challenging to manage and may portend poor outcomes if untreated.

Case Report: We present a case of a 2yr old unimmunized rural dweller who presented with facial, neck and chest swellings 3 days after being managed for measles exanthem from a referral hospital. Clinical findings were consistent with massive subcutaneous emphysema comorbid with malnutrition complicating convalescent stage of measles. The child failed to improve with conservative management but responded to closed thoracostomy tube drainage (CTTD) through an underwater seal bottle with intermittent negative pressure

wound therapy (NPWT). The child spent 47days on admission during which the treatment was supported by a faith-based organization and social welfare unit of the hospital.

Conclusion: Subcutaneous emphysema is a rare complication of measles infection that can be challenging to manage especially when comorbid with malnutrition in an indigent child. The multi-disciplinary team approach and the use of CTTD with NPWT is an effective management measure that can shorten the duration of hospital stay.

Keywords: Measles, Subcutaneous emphysema, Indigent child, Malnutrition, Case Report, Nigeria

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PSOG-17: The perception of virtual learning in the post-COVID-19 era by medical students in South-Eastern Nigeria: A cross-sectional study

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Background: The Covid-19 pandemic has necessitated the shift from the traditional learning model, to a blended approach or entirely virtual learning.

Objective: This study aims to find out the perception of medical students about virtual learning and suggest policies on how to improve our virtual learning resources.

Methods: This was a cross-sectional study conducted amongst 456 medical students in clinical classes from the three participating medical schools (UNTH, ESUTH, and EBSUTH). Data were obtained using a questionnaire distributed partly through physical copies and google online form. Questions were on participants' demographics, gadgets preferred for virtual learning, virtual learning platforms used, previous participation in virtual learning before Covid-19, and perception towards virtual learning issues. Data were analyzed using Statistical Packages for Social Sciences (SPSS) version 23. The level of significance was 0.05 while the confidence interval was 95%.

Results: The median age of the participants was 24 years, IQR (23 – 25) and 258 (56.6%) were males. The most common gadget participants used for virtual learning was smartphone 248 (55.4%), and the most common platform used was the ZOOM platform, 338 (78.2%). Participants' most preferred learning method was the blended approach, 241 (53.08%). A significantly greater proportion (60.7%) of students who had participated in distance learning before the Covid-19 era preferred entirely virtual learning, while a significant proportion (58.6%) of students who hadn't participated in virtual learning before the Covid-19 era preferred the traditional method.

Conclusion: The most preferred learning method for the medical students was the blended approach. Technical and infrastructural resources were reported as a major challenge for implementing virtual learning.

Keywords: Virtual learning, Medical students, Covid-19

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PSOG-18: The underreported practice of infanticide in Nigeria - post Mary Slessor era. A case review of rescued children

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Background: Baby dumping and infanticide are common forms of child abuse in Nigeria despite the historical notion that Mary Slessor stopped these practices in Nigeria during the 19th century. Though the child's right law has since been promulgated in Nigeria, not many states have domesticated it allowing for continued child abuse in Nigeria.

Objectives: This review aims to highlight some under-reported cases of infanticide practices in Nigeria, and efforts of a non-profit organization to rescue these children.

Methods: Case review of children who were rescued by Vine Heritage Orphanage from being killed for various reasons, in 13 rural communities in the FCT was conducted from 1996 – 2020. The review observed how the traditions of infanticides are been preserved by the local community, the reasons for them and the strategy of government and responsible agencies in addressing the problem.

Results: In the past 20 years, over 120 children have been rescued into the Vine Heritage orphanage from few hours of age to 5 months. The communities involved in these acts were; Abaji, Gwagwalada, Kuje, and Kwali area councils of the Abuja, and reasons included; maternal mortality: 112, multiple births: 21, presence of natal teeth, sacrifice to local deity for fertility: 4, and birth defects: 3, albinism: 1. Sixteen of these children have been reunited with their communities, following campaigns and government interventions.

Conclusions: Medical conditions are the most prevalent reasons for committing this act so while more enlightenment is needed in these communities, we acknowledge the efforts of the Vine Heritage home in reducing the rate of open infanticides in the Abuja communities. The enactment of laws which allow parents decide to give their children to the state is recommended as a strategy to stem the tide of infanticide in Nigeria.

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PSOG-19: Sexual abuse among street children in Port Harcourt metropolis

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Background: The United Nations Children Fund defines a street child as 'any girl or boy for whom the street in the widest sense of the word including unoccupied dwellings, wasteland has become his or her habitual abode and or source of livelihood, and who is inadequately protected, supervised or directed by a responsible adult. The problem of street children is worldwide, many cities and urban centres of the world have become a haven of survival for many children in distress. Street children are among the most deprived, they usually have no access to healthcare and education and some are already victims of violence even before taking to the streets. Child Sexual Abuse (CSA) is the involvement of a child in sexual activity that he or she does not fully comprehend and is unable to give informed consent. Sexual abuse of young children has been linked to child labour of which street children are part of. Children who work on the streets are exposed to vulnerable and precarious situations making them more susceptible to sexual exploitation. One of the consequences of child sexual abuse is Human Immunodeficiency Virus infection which is a major contributor to morbidity and mortality in Africa. Few studies have been done on prevalence of CSA among street children in Nigeria, especially in South-South, Nigeria.

Objectives: This study sought to determine the prevalence and characteristics of sexual abuse among street children in Port Harcourt Metropolis.

Methods: Using multi-staged sampling technique, 185 street children aged between 8 to 18 years were studied in a cross-sectional survey from May 2018 to July 2018. Ethical clearance was obtained, confidentiality and anonymity were ensured. Data was collected using a semi-structured interviewer administered questionnaire and Analytical statistics was used for data analysis, test for association between subgroups was carried out using Chi-square test and Fischer's exact test. RESULTS-The subjects comprised of 91 (49.2%) males and 94 (50.8%) females with a male to female ratio of 1:1.03. Children of the street consisted 15.7% of the study population while children on the street were 84.3%. The overall prevalence of CSA was 33.0%, seen more in females than males, at the rate of 34.0% and 31.9% respectively. The gender difference was not statistically significant ($p = 0.667$). The age range at first experience of CSA was at 13-15 years, Nonpenetrative sexual abuse was more common, accounting for 57.4%. Adult males were the major perpetrators accounting for 80.3% while juveniles/children constituted 19.7%, most of the location of the abuse was on the street (59.0%). Forty-one percent of the perpetrators were strangers while street children and family members constituted 19.7% and 9.8% of the perpetrators respectively. The prevalence of CSA increased with length of time spent on the streets

($p=0.048$).

Conclusion: Street children in Port Harcourt Metropolis are exposed to high rate of sexual abuse. In view of this findings, public enlightenment on the risk of sexual abuse among street children should be done via mass media campaigns.

Key words: Child Sexual Abuse (CSA), Street Children