Abstracts of Proceedings

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GP 1

Marfans Syndrome in three consecutive siblings in Sokoto, Northwestern Nigeria

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Background: Marfan syndrome (MS) is an autosomal dominant multi-systemic connective tissue disorder mainly affecting the cardiovascular, skeletal and ocular systems. We present three cases of MS occurring in consecutive siblings from a consanguineous marriage couple in Sokoto, Northwestern Nigeria. The aim is to emphasize the need for early recognition and genetic counseling.
Case report: An 8-year old girl presented with history of recurrent cough, weight loss, generalized body weakness and hypermobility of the joints since 2 years of age. Prior to presentation, she was treated for tuberculosis for 8months with no response. On examination, she had classical features of MS including long, thin extremities, high arched palate with dental crowding, disproportionately long arm span, Pes planus, wrist and thumb signs. Family history revealed similar features in two of her siblings. The first was her elder brother who died suddenly at the age of 5yrs while the second was her younger sister aged 5yrs. Echocardiography in the two surviving patients revealed aortic aneurysm. The diagnosis of MS in the patients was made based on revised Ghent nosology (2000). Parents never had any form of counseling in the past, as this was the first time they were informed about the problem. Hence, they were counseled accordingly and advised on the need for genetic testing, prenatal diagnosis and/or family planning. The patients are currently being followed up at the Pediatric Cardiology and Neurology clinics.
Conclusion: Marfan syndrome is a heritable multi systemic disorder, often complicated by aortic artery aneurysm and life threatening aortic dissection. Health care providers should be able to recognize the features of this syndrome so that genetic counseling can be offered early to affected families.
Key words: Marfan syndrome, consecutive siblings, Sokoto, Nigeria.

GP2

Spatial analysis of accessibility to child health care services in Sokoto metropolis

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Background: Despite the admirable intent of citing existing child health care facilities in resource constraint settings such as Sokoto, North western Nigeria; limited success has been recorded in reducing child morbidity and mortality. This is probably due to geographic inaccessibility to such care. Geographic Information Systems (GIS) are increasingly being harnessed to help solve environmental based health problems such as accessibility to health care.
Objectives: We aimed to assess accessibility to child health care services in Sokoto metropolis using GIS.
Methods: Facilities were mapped using handheld Global Positioning System. Using network analyst tool in Arc GIS, cost Origin Destination (OD) matrix was created using the population weighted centroid of each electoral ward as origins and the health facilities as destinations. The average nearest neighbourhood analysis was done to determine the spatial randomness of the health care facilities. Furthermore shortest route to these facilities was determined. In addition, structured questionnaires were administered to determine child health services (i.e. Doctor-patient ratio, patient-bed ratio, facilities for immunization, exclusive breast feeding, control of diarrheal disease, management of severe acute malnutrition). Spatial data and non-spatial data were analyzed using Arc GIS (version 10) and SPSS (version 20). Statistical significance was taken as 0.05.
Results: Health care facilities in some wards were grossly inadequate and three settlements were found to be deprived child health care facilities. In most areas where child health facilities were geographically accessible this did not equate with availability of child health services.
Conclusion: There is need to improve health accessibility in certain areas which are underserved in Sokoto metropolis.

GP 3

Childhood poisoning at the Ekiti State University Teaching (EKSUTH) Ado Ekiti, southwest Nigeria

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Introduction: Poisoning is a preventable cause of childhood morbidity and mortality. Information on childhood poisoning in the developing world is scanty. This study describes the profile of childhood poisoning at the Ekiti State University Teaching Hospital.
Material and Methods: Children admitted with poisoning over a 48-months period at the Ekiti State University Teaching Hospital Ado-Ekiti, Southwest Nigeria, were reviewed.
Results: It was found that 81 of 5256 admissions representing 1.54% of the total admissions were due to poisoning. Kerosene, Drugs, Alcohol based herbal concoction, pesticides, corrosive agents and carbon monoxide were involved in 37.0%, 22.2%, 19.8%, 8.6%, 6.2% and 6.2% respectively. Accidental and non-accidental intentions were involved in 85.2% and 14.8% cases respectively. Administration of palm oil (oil from *Elais guineensis*), vomiting induction and herbal concoction were the leading home interventions in 69.1%, 38.3% and 23.5% respectively. One patient required intensive care. There were seven deaths and overall mortality rate was 8.6%.
Conclusion: Poisoning remains a cause of childhood morbidity and mortality in Nigeria. The double burden of both intentional and non-intentional poisonings was observed alongside higher preponderance of herbal concoction poisonings compared to previous reports. Establishment of poisoning information and control centre, use of poison score to triage patients and incorporation of routine education on poisoning prevention to parents by health care providers are recommended among other strategies to combat its scourge in Nigeria.
Key words: Childhood poisoning, Child deaths, Southwest, Nigeria.

GP4

Fryns syndrome in a child with congenital diaphragmatic hernia and congenital heart disease: a rare case seen at Usmanu Danfodiyo University Teaching Hospital, Sokoto

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Background: Fryns syndrome is a rare autosomal recessive disorder first described by J.P Fryns in 1979. It is characterized by facial abnormalities, distal digit anomalies, cardiac defects and congenital diaphragmatic hernia (CDH). CDH is the most common associated defect and can result in life threatening respiratory complications. We report a possible case of this syndrome seen in our facility in Sokoto
Case report: H.S.B, was a 10-month old female infant delivered at term after an uneventful supervised pregnancy. Apgar scores were 3^1 and 7^5 respectively with a birth weight of 2.54kg. On examination, she had dysmorphic features including low set ears, depressed nasal bridge, camptodactyly, hypoplastic nails, talipes equinovarus and umbilical hernia. She also thrived poorly weighing 4.2kg at 10 months.
Chest X-ray and contrast study confirmed diaphragmatic (Morgagni hernia) while echocardiography revealed congenital heart disease (Atrioventricularseptal defect). Patient had recurrent admissions on account of bronchopneumonia and heart failure. While being planned for surgery, she developed features of severe bronchopneumonia with heart failure and died despite treatment.
Conclusion: Fryns syndrome is a rare disorder associated with high morbidity and mortality. Early recognition and correction of life threatening anomalies can improve prognosis in affected patients.
Key words: Congenital diaphragmatic hernia, AVC defect, Fryns syndrome, Sokoto

GP5

Over-the-counter medication use among under-5 children in Gwagwalada Metropolis

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Background: Administration of drugs to children without prescription from physician can lead to unnecessary medication use, adverse reactions and drug resistance.
Objective: The aim of the study is to examine the magnitude of over-the-counter-drug use among under-5 children prior to presentation to physician for consultation.
Methods: A prospective cross sectional study of consecutive under-5 children brought to the pediatric outpatient clinic of University of Abuja Teaching Hospital, Gwagwalada-Abuja was conducted over a period of 6 months.
Result: A total of 386 respondents (mother and child pair) were interviewed. The ages of the mothers ranged between 18 and 50 years, while those of the children were between 1 week and 60 months.
176 (45.6%) of the mothers were from the lower socioeconomic class, 124 (32.1%) were from the middle class, and 86 (22.3%) were from the upper class.
A total of 306 (79.3%) mothers admitted to have administered over-the-counter drugs for the treatment of their children's symptoms before presenting to the physician while 80 (20.7%) mothers used none. About one-third used two or more drugs before consultation.
Antipyretic drugs were the most frequently used medications (178), followed by antibiotics (136), antimalaria (83), antitussives (52), and multivitamins (40).
Discussion and Conclusion: The study demonstrates widespread use of over-the-counter medications in chil-

dren in Gwagwalada Metropolis. There is therefore need for public enlightenment on the potential harm relating to the use of over-the-counter drugs in children.

GP6

A preliminary spatial analysis of an outbreak of childhood lead poisoning in Zamfara, Nigeria

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Objective: To map spatial exposures to lead using blood lead concentrations in children, soil and water lead levels.
Design: A descriptive cross-sectional survey.
Methods: Primary data consisted of coordinates of mining sites and lead care centers. Secondary data comprised the study area's micro-climate, household coordinates, age, sex, blood and soil lead values of compounds where under- fives reside. Spatial and non-spatial analytic techniques were used to map, describe and analyze spatial patterns.
Results: Out of 85 children aged between 5 and 54 months; males constituted 56% (48/85). Blood lead levels above 5 micrograms per deciliter, (mean ± SD) 130.7 ± 78.1 were detected in all children. Significant correlations existed between blood and soil lead concentrations in the villages of Yargalma (Pearson's r =0.379, p=0.01) and Dareta (Pearson's r=0.487, p=0.001).Spatial pattern analysis revealed a random distribution of blood and soil leadlevels in both villages. The climatology of the area showed increase in land surface temperature and decrease in rainfall patterns prior to the outbreak.
Conclusion: Spatial analysis can aid detect and explain the pattern of environmental health problems such as childhood lead poisoning.

GP7

A pilot study of the sonographic measurements of the splenic length in school aged children in Port Harcourt

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Introduction: Ultrasonic evaluation of the solid organs of the abdomen in children is a common and important part in the evaluation of various pathologies. Clinical palpitation of the spleen is not very accurate as a means of examination of the spleen. There is a paucity of local references for this environment and African as a whole while this is well established in other climes and continents necessitating this study.
Method: A descriptive cross sectional study was done in Port Harcourt, South, south Nigeria were 177 healthy primary students aged 5-13 years were recruited after consent was obtained from their parents. Their bio data was obtained as well as their height, weight, Body mass index and body surface area. The spleen was sonographically evaluated and the splenic length obtained. Correlational studies were done and results recorded.
Result: A total of one hundred and seventy seven children took part in the study. 93 (52.5%) were male, 84 (47.5%) were female. The age ranged from 5-14 years with a mean age of 8.40± 1.93years and a median age of 9years.
The mean length of the spleen for both sexes was found to be 8.07cm ± 17.4 with a median length of 8.10cm. Correlation studies showed a weak non-significant correlation between the splenic length, body mass index (P-.0.73), weight (p=0.27) and body surface area
(P= 0.142).
There was a significant positive difference in the mean between males and females (p=.003) and between the splenic length and height of the child (p=0.025).
Conclusion: The normal value of the splenic length as determined will serve as a reference standard in ultrasonographic evaluation of the spleen in Port Harcourt .
Key words: Ultrasound; measurements; spleen length; school age children.

AP1

Abdominal Obesity in Adolescent Girls Attending a Public Secondary School in Port Harcourt, Nigeria: prevalence and some factors associated with occurrence.

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Background: Deposition of excess fat in the abdominal region is strongly associated with the metabolic disturbances thought to underlie many obesity related complications.
Aim: To determine the prevalence of abdominal obesity using waist circumference in adolescents' girls attending a public secondary school in Port Harcourt, Nigeria and to identify some risk factors associated with occurrence of abdominal obesity in subjects studied.
Methodology: A total of 1330 females aged between 10 and 19 years were studied. Data on bio data, dietary habits and measure of physical activity was obtained using a self-administered questionnaire. Anthropometry was taken and overweight/obesity and abdominal obesity determined using Body mass index percentiles and waist circumference percentiles for age and sex respectively. Logistic regression was used to evaluate some physical and behavioural factors associated with the development of abdominal obesity.
Results: Total of 246(18.12%) were overweight or obese while 20 (1.5%) subjects had abdominal obesity. Mean age of girls studied was 15.74±1.45 years. Mean waist circumference was 72.26±7.17cm. Eighteen (90%) of

subjects with abdominal obesity were also overweight or obese using BMI percentile estimation. 18(7.5%) of all subjects with overweight or obesity had abdominal obesity compared to only 2(0.2%) of those with normal weight. Physical inactivity, daily fruit consumption and watching of TV/Internet/Video games for ≥2hours /day were significantly associated with development of abdominal obesity.
Conclusion: Prevalence of abdominal obesity was low in this study compared to other studies; reduced physical activity and sedentary lifestyle identified as significant risk factors in these subjects as reported in other studies.
Key words: Abdominal obesity, adolescents, girls, risk factors.

AP2

Pattern and Determinants of Sleep Problems in school-going Adolescents in Kano, Nigeria

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Background: Sleep problems especially in the adolescent stage of development may be associated with excessive daytime sleepiness, impaired neurocognitive function and a host of others leading to suboptimal performance.
Objective: To determine the pattern of sleep disorders in school-going adolescents based on the BEARS (Bedtime problems, Excessive daytime sleepiness, Awakenings during the night and problems falling back asleep, Regularity and duration of sleep, Sleep-disordered breathing) sleep screening algorithm.
Methods: A cross sectional descriptive study involving 353 secondary school-going adolescents in Kano metropolis. Subjects were selected for the study using multistage sampling technique. Study lasted from March 2015 to July 2015. Sleep problems were screened for using the BEARS sleep screening algorithm. The various BEARS Sleep patterns were assessed with possible risk factors and comparison between stages of adolescence (early, middle and late) done using the Chi square test.
Results: Of the 353 adolescents studied, 61.8% were males while 38.2% were females. Early, middle and late adolescents constituted 13.9%, 39.9%, 46.2% respectively. BEARS sleep screening revealed awakenings during the night (34.6%) as commonest, then excessive daytime sleepiness (21.0%). Age-group dependent sleep duration was 7.19±1.26, 7.13±1.13, 7.16±1.28, P > 0.05. Though 62.9% of all the adolescents watch TV/play video games till one hour before going to bed and this was highest in late adolescence, it was not significantly associated with any of the sleep problems.
Conclusion: Both the quality and quantity of sleep in adolescents in Kano is suboptimal. Adolescent and sleep medicine should receive more attention in our environment.
Key words: Adolescents, Sleep problems, BEARS, Kano.

AP3

Prevalence of non-protective immunity against tetanus and its association with nutritional status of female adolescents in Ibadan, Nigeria

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Background: The low uptake of tetanus vaccine and its resultant high burden of tetanus in Nigeria suggest the need to improve routine and booster vaccination in adolescents. Targeting such intervention toward the most vulnerable groups may safe cost and improve effectiveness of the disease control. However, information on epidemiological factors such as nutritional status needed for identification of such groups are not well described in literature. Therefore, this study was carried to investigate nutritional status as risk factors for non-protective immunity among adolescent girls.
Methods: Using a three-stage sampling technique, 851 female adolescents were randomly selected from secondary schools in Ibadan, Nigeria. A pre-tested questionnaire was used to obtain data on demographic and socioeconomic characteristics, living conditions and history of tetanus vaccination. An immuno-chromatographic rapid test kit, "Tetanos Quick Stick" was used to detect specific tetanus antitoxins protective level (defined as concentrations >0.1 IU/L) in venous blood samples. Descriptive and Chi-square statistics were used for data analysis at p = 0.05.
Results: Seroprevalence of protective immunity against tetanus was 38.1% and it significantly decreased with increasing age. More adolescents in public (65.4%) than private (44.7%) schools had non-protective level of immunity (OR = 2.34; 95% CI = 1.62, 3.37). When the participants were categorised based on their body mass index (BMI), there was no significant difference in the risk of non-protective immunity in the thinness category (OR= 1.07; 95% CI 0.59, 1.91) and overweight category (OR = 0.92, 95% CI= 0.55, 1.54).
Conclusion: This study showed that protective immunity against tetanus among female adolescents was poor, more so in public schools and that it has no association with body mass index. Policy-makers need to consider the inclusion of immunisation against tetanus in the school health programme.
Keywords: Tetanus immunity, Schooling adolescents, Vaccination, Body-Mass index

AP4

Schooling adolescents' views about feasibility and funding for school- based immunisation programme in Nigeria

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Introduction: The World Health Organization (WHO)

recommends that women of child-bearing age, 15 to 45 years, should commence a 5-dose regimen of vaccination against tetanus as early as possible, but in Nigeria there is no known programme aimed at ensuring early commencement. The low uptake of tetanus vaccine and the resultant high burden of tetanus in Nigeria suggest the need to improve routine and booster vaccination in adolescents. However, epidemiological evidence for vaccination, feasibility and acceptability of vaccination needed for effective strategy and policy formulation. This study sought to describe the views of adolescent girls on school-based tetanus immunisation programme.
Methods: Using a three-stage sampling technique, 851 female adolescents were randomly selected from secondary schools in Ibadan. A pre-tested questionnaire was used to obtain data on demographic, socio-economic characteristics and history of tetanus vaccination. The participants' responses to a list of opinion statements on tetanus vaccination in schools and the possible sources of funding were obtained. Descriptive and Chi-square statistics were used for data analysis at $p = 0.05$.
Results: Mean age of participants from public (14.4 ± 1.9 years) was higher than those from private schools (13.6 ± 1.6 years); $p<0.001$. Significantly more adolescents in private (71.6%) than public (53.6%) schools disagreed that tetanus immunisation could be given in schools. Notably, 68.1% of the adolescents in private compared with 46.2% in public schools agreed that parents will not allow school-based immunisation ($p<0.001$). About two-third (59.6%) of the adolescents in private compared with public (46.2%) schools opined that it would not be possible to give injectable vaccines in schools ($p = 0.015$). More adolescents in private (80.9%) than public (78.7%) opined that government should be solely responsible for funding school-based immunisation in the event it must be introduced.
Conclusion: Adolescents in schools in Ibadan expressed varying opinions on feasibility and funding of school-based immunisation in Nigeria. There is the need to advance knowledge and understanding of adolescents through health education in schools.
Keywords: Tetanus immunisation, Adolescents, Vaccination, Feasibility

AP5

Prevalence and determinants of cigarette smoking among senior secondary school students in Ilorin, North Central Nigeria

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Background/Introduction: Tobacco is the most important preventable cause of premature death in many countries. Preventing the initiation of tobacco use among adolescents is critical to the control of tobacco use. This study assessed cigarette smoking and the associated factors among senior secondary school students in Ilorin metropolis.
Aims/Objectives: This study assessed cigarette smoking and the associated factors among senior secondary school students in Ilorin metropolis.
Methods: It is a cross sectional study involving 2000 students selected from twenty schools; using multistage sampling technique. A self-administered questionnaire adapted from the Global Youth Tobacco Survey (GYTS) was used for data collection and the data analysed using SPSS software version 16.0.
Results: Eighty-two students (4.11%) had ever tried cigarette smoking, while the prevalence of current cigarette smoking was 1.95%. Gender, parental cigarette smoking status, peer influence and student's engagement in vocational training were significantly associated with cigarette smoking ($p < 0.05$). Other factors identified were wrong perceptions of the effects of cigarette smoking, glorification of cigarette smoking as depicted by actors and actresses in movies shown on television and the unrestricted access to cigarette.
Conclusion & Recommendations: Although the prevalence of current cigarette smoking among the students is low, the prevailing circumstances have the potential of not only encouraging current smokers to continue smoking, but may also encourage the initiation of smoking habits among other students. Hence, there is a need to take preventive measures to address these identified factors.

AP6

Overweight and Obesity Status of School Adolescents in Port Harcourt, Southern Nigeria

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Background: Adolescent overweight and obesity has been linked to obesity in adult life, with its associated risks of chronic diseases including cardiovascular diseases. Thus, prevention aimed at early screening and surveillance should be the key. The aim of this study is to determine the prevalence of overweight and obesity among schooling adolescents in Port Harcourt.
Subjects and Methods: A cross sectional study was carried out on 2,282 secondary school students aged 10–19 years, using a structured questionnaire to obtain data. Weights and height were measured using standard methods. The Body Mass Index (BMI) was calculated from their weights and heights in $kg/m.^2$ The nutritional status of the students was determined using the BMI percentile charts for age and gender as recommended by the World Health Organization in 2007.
Results: The prevalence of overweight and obesity were 13.2% and 4.6%. The female subjects had a higher prevalence of overweight and obesity (14.6% and 5.2%) than the males (11.4% and 3.8%) and this difference was statistically significant ($p = 0.041$).
Conclusion: The prevalence of overweight and obese adolescents in Port Harcourt is high. We recommend that health education with emphasis on lifestyle changes and behavioral modification that will promote healthy eating and regular physical activities be inculcated into

the curiculum of secondary schools in Nigeria.
Key words: Overweight, Obesity, Adolescents, Nigeria.

CP1

An assessment of school health services in primary schools in Enugu East Local Government Area

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Introduction: School health ensures that school children are in optimal health at all times such that they attain their physical and intellectual potential. It is a potential way of achieving a widespread impact on the health of a large number of children.
Aims: to assess school health programme in primary schools in Enugu east
Methods: This was a cross sectional descriptive study of school health services in thirty three primary schools in Enugu east. Multistage sampling was used to select participating schools. Eight wards with both public and private primary schools were studied using a questionnaire while responses were scored using School Health Program (SHP) evaluation scale ranging from 19 to 45.
Results: Four schools (all private) had health personnel. No school required pre-entrance medical examination before admission and none conducted periodic medical examination on students and staff. Six schools (all private) had health rooms. Only Twenty four private and two public schools had functional first aid boxes. Any child with communicable disease was sent home by all the schools. No health records were available in any of the schools. School lunch was provided in one private school. Out of a maximum score of 45, public schools had a mean of 10.30 while private schools had 12.76. ($p = 0.01$) Three private schools attained the minimum score of 19.
Conclusion: School Health Services is minimally existent in Enugu East Local Government area.

CP2

Factors affecting school health programme (SHP) in primary schools in Enugu East Local Government Area (LGA)

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Introduction: SHP ensures that school children are in optimal health at all times such that they attain their physical and intellectual potential and receive moral and emotional benefits from their health providers, teachers and school environment. Schools are the only institutions that can nearly reach all youth. They are, therefore, in a unique position to improve the education and health status of young people.
Methods: Thirty three schools were selected through multistage sampling. Head teachers of the selected schools and officials of the ministry were interviewed using two separate questionnaires.
Results: Eight (24.2%) of the head teachers had heard of SHP. The commonest reason given for not requesting pre-entrance medical screening was that it was not in the curriculum (nine schools) while seven schools said it was not necessary. Nineteen schools were not aware of periodic medical screening while ten thought it was expensive. Five public schools gave no treatment in the school because they had neither materials nor personnel. School meals were not available because it was expensive (twelve schools), not necessary (eight schools), against parents wish (four schools). Eighteen schools felt school-community relations was not necessary. None of the officials interviewed in the ministries of education and health was aware of SHP.
Conclusion: Lack of awareness of the importance of SHP, lack of resources and poor attitude of government are some of the factors responsible for the present state of school health program in Enugu east LGA.

NN1

Implementation of Kangaroo Mother Care among paediatric health workers in Nigeria

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Introduction: Kangaroo Mother Care (KMC) has been proven to significantly improve growth, reduce mortality and morbidity in low birth weight infants. The impact of KMC in newborn care is expected to be greatest in Africa due to limitations in health care.
Objective: The aim of this study was to determine the proportion of Nigerian health workers rendering paediatric care who practice KMC in their institution, and identify some challenges affecting the practice of KMC in Nigerian health institutions.
Method: A cross sectional study of the participants at 45th annual scientific conference of the Paediatric Association of Nigeria was conducted. Information on the health workers and their facility were collected and analysed.
Result: A total of157 respondents 122 (77.7%) doctors and 35 (22.3%) nurses were studied. 84 (53.5%) practiced KMC. The reasons for not practicing KMC were lack of policy reported by 43 (58.9%) and inadequate place for the mothers to stay 30(41%). The level of practice was significantly higher among respondents that worked in facilities that care for sick neonates ($p = 0.049$), have functional incubators ($p = 0.014$) and practice KMC ($p < 0.001$).

Conclusion: Hospitals should have a written KMC policy and provide KMC wards in order to improve implementation of KMC practice in Nigeria.

NN2

Prevalence, risk factors and outcome of preterms at a specialist Hospital in Gusau, Nigeria

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Background/Introduction: Prematurity is a significant cause of neonatal morbidity and mortality with associated long term consequences. Several risk factors for preterm births have been identified, however not all risk factors are known.
Aims/Objectives: We aimed to determine the prevalence, risk factors and outcome of preterms admitted in our SCBU
Methods: A retrospective descriptive study of all preterm babies admitted into the SCBU who were either delivered in the hospital or referred to the hospital over a 2 year period. Maternal and newborn information were filled into a questionnaire and data was analysed using SPSS.
Results: 494 babies were admitted into the SCBU of which 56 were premature, with a prevalence of 11.3%. Thirty three were males (58.9%) with M:F ratio of 1.4:1. Mean gestational age was 31.79±1.97 weeks with a range of 28 to 36 weeks while mean birth weight was 1.38±0.41kg with a range of 0.50 to 2.40kg. Ecclampsia, PROM, antepartum haemorrhage and maternal sepsis were the commonest risk factors; while 15(26.8%) mothers had no identifiable risk factor. Respiratory distress syndrome, apnoea, jaundice, hypoglycaemia and hypothermia were the commonest complications. Twenty one (37.5%) were discharged, 26(46.4%) died while 9(16.1%) were discharged against medical advice; thus 30(53.6%) were discharged alive. Respiratory complications and neonatal jaundice were associated with poorer outcome (p=0.000, 0.013 respectively). Male sex was significantly associated with mortality (p=0.045).
Conclusion & Recommendations: Prematurity still remains a major cause of morbidity and mortality in Nigeria. Many premature babies reach the hospitals late in developing countries due to poverty and poor infrastructural development; hence when they reach such hospitals the problems of prematurity have already set in leading to poorer outcome.

NN3

Familial arthrogryposis multiplex congenita at Gusau, Nigeria: Case report and review of the literature

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Background/Introduction: Arthrogryposis multiplex congenita (AMC) is characterized by contractions of multiple joints present at birth with fat or fibrous tissue partially or totally replacing muscles. The aetiology is unclear but several factors play a role.
Aims/Objectives: We report a case seen at our hospital.
Methods: A 2 day old male term neonate presented with history of multiple contractures in all limbs since birth, fever and vomiting of one day duration. Older sibling, a male child had similar multiple contractures in all limbs and died few days after birth. Maternal aunt had a male child with multiple contractures of all limbs who also died few days after birth. Our case had multiple contractures and specific posture involving all the limbs; however no cardiac or neurological abnormality was observed. He was managed as a case of neonatal sepsis with AMC with antibiotics and had POP applied on the limbs. He did well and was discharged home to be followed up at the clinic. He however did not come for follow up and died at home at the age of 10weeks.
Conclusion & Recommendations: Arthrogryposis is a common congenital presentation in many conditions, however aetiology is unclear. Comprehensive musculoskeletal evaluation and genetic consultation is required. Early rehabilitation of a child with arthrogryposis requires the involvement of the parents/guardians and multidisciplinary approach to optimise the possibility of making a diagnosis and providing parents with accurate information regarding likelihood of recurrence.

NN4

A two-year review of outcome of neonatal admissions at the Children Emergency Room of the Lagos State University Teaching Hospital, Ikeja, Lagos

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Background: Nigeria has one of the worst health indicators, including neonatal mortality rate, in the world. Despite moderate reduction in global infant and under-five mortality rates neonatal contribution to childhood deaths has shown minimal decline. With drive towards intensified scale-up of proven interventions that will help reverse this trend by all stakeholders involved

in neonatal well-being this centre reviews neonatal outcome in the Children Emergency Room over a two-year period.
Methodology: The study is a retrospective review of a prospectively obtained records of neonates admitted into the neonatal section of the Children Emergency Room (CHER) of the Lagos State University Teaching Hospital (LASUTH), Ikeja, Lagos, South-West Nigeria from January 1st, 2011 to December 31st 2012.
Results: 2060 neonates, with total of 2590 diagnoses, were admitted into the CHER over the period in review. The male-to-female ratio was 1.4:1. 273 neonates died in the emergency room giving a mortality rate of 13.3. The leading causes of morbidity were neonatal infections (41.6%), neonatal jaundice (26.7%), perinatal asphyxia (23.8%) and prematurity (11.7%). Major causes of death include perinatal asphyxia (41.4%), neonatal infections (38.9%) and neonatal jaundice (28.2%); preterm /LBW babies accounted for 3.6% of deaths. Severe anaemia and neonatal tetanus had the highest case fatality rate (CFR) of 35.5% and 26.9% respectively.
Conclusion: the observed mortality rate in this study is high. Although most of the neonatal illnesses and deaths are preventable. There is a need to scale-up existing interventions particularly at the primary healthcare and community level.

NN5

Meropenem associated prolonged cholestasis in the newborn: A report of two cases

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Background/Introduction: Meropenem is one of the new carbapenem antibacterial agent with wide spectrum of activity against Gram-negative, Gram-positive and anerobic organisms. It has greatest utility in the treatment of children hospitalized with serious bacterial infections. Despite its usefulness and relative safety, adverse events have been documented with an overall incidence of 1%. We report two cases of cholestasis in neonates of gestational ages 36weeks and 32 weeks respectively who had septicaemia and received meropenem for 14 days. These infants developed cholestasis and deranged liver transaminases several days after the discontinuation of therapy with meropenem.
Aims/Objectives: This report is to create awareness about this uncommon adverse effect of meropenem. This is also important because of the increasing use of drugs such as meropenem as a result of the problem of increasing resistance of microorganisms to commonly used antibiotics.
Methods: A descriptive report of two cases in the newborn
Results: The two cases had cholestasis with deranged liver function lasting greater than six weeks .
Conclusion & Recommendations: Meropenem has also been linked to rare cases of cholestatic jaundice that usually arises after 1 to 3 weeks of therapy. Generally it is self limiting, however, on rare occassion can lead to vanishing bile duct syndrome.

NN6

Morbidity profile and outcome of newborns admitted into the neonatal unit of a secondary health care centre in Benin City

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Background/Introduction: An important indicator of health care is neonatal outcome. Few published data are available concerning neonatal morbidity and mortality from secondary health centres, where a large number of newborns are seen.
Aims/Objectives: To determine the morbidity profile and outcome of neonates admitted into the neonatal unit of Stella Obasanjo Hospital, a state owned general hospital in Benin City, Edo State, Nigeria.
Methods: This retrospective study which covered a period of six years (July 2008 – June 2014) involved the extraction of information on patients' age, sex, diagnosis, duration of stay and outcome from the medical records of the neonatal unit.
Results: There were 2,302 newborns admitted; out of which 1,283 (55.7%) being males, while 1,019 (44.3%) were females, giving a M: F ratio of 1.3:1. The major indications for admissions were presumed neonatal sepsis 1,425 (61.9%), severe birth asphyxia 942 (40.9%), neonatal jaundice 565 (24.5%) and prematurity 378 (16.4%) occurring singly or in various combinations. Mortality rate was 12.8% with major contributions from presumed neonatal sepsis, severe birth asphyxia and prematurity. Most of the deaths occurred in the first week of life.
Conclusion & Recommendations: The major causes of morbidity and mortality among the newborns are preventable. To improve our health indices, we must health educate at the community level while strengthening our obstetric and perinatal care services.

NN7

The incidence, timing and progression of germinal matrix/intraventricular heamorrhage by utlrasonography in preterm neonates in Benin City

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Background/Introduction: Germinal matrix/ intraventricular haemorrhage (GMH/IVH) is the most frequent type of intracranial bleed in the preterm very low birth weight babies. The mild and sometimes moderately severe GMH/IVH may go unrecognized in the neonatal period with the potential for catastrophic consequences in later life. Routine screening for GMH/IVH with cranial ultrasonography in extremely low and very low birth weight babies is advocated. There is paucity of data on the time of occurrence, progression of, and the

ideal time to perform diagnostic imaging studies for GMH/IVH in our own African population.
Aims/Objectives: This study aimed at determining the incidence, timing, severity and progression of GMH/IVH in preterm less than 35 completed weeks of gestation in our population.
Methods: Babies less 35 completed weeks of gestation admitted in the neonatal unit of the University of Benin Teaching Hospital over a 2 year period from September 2011 to September 2013, were consecutively recruited for the study. A serial cranial ultrasonograhpy was done using the anterior fontanel as acoustic window for each baby within 12 hr of delivery at the 24th hour and daily until the 7th day. Repeat scans were done on the 14th day and between 36 and 40 weeks' post-menstrual age.
Results: A total of 92 preterm babies were with gestational age range from 23 – 34weeks studied. Their birth weight ranged from 390gm to 2000gm with a mean of 1071gm (±344gm). GMH/IVH was found in 70 (77.7%) of the neonates, 21.7% had grade 1; 41.3 had grade 2and3, while 13% had grade 4. While there was an indirectly relationship between the incidence of grade 1-3 IVH and gestational age, occurrence of intra-cerebral GMH (grade 4) was unrelated to gestational age. 48% of GMH/IVH occurred within 24hours of life while 75.5% occurred within 72hours. Low apgar score was associated risk factors for early GMH/IVH while patent ductus arteriosus and abnormal bleeding were identified risk factors for late GMH/IVH. Thirteen (18.6%) progressed to varying degree of ventriculomegally and 2 neonates developed hydrocephalus.
Conclusion & Recommendations: Routine screening for IVH is advocated to reduce the risk of progression and complications. Monitoring for Identified risk factors and prompt intervention may be of benefit.

NN8

Idiopathic spontaneous intestinal perforation; a distinct clinical entity from necrotizing enterocolitis: a case report

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Background/Introduction: Spontaneous intestinal perforation (SIP) is a recognized clinical entity in which there is a defect in the wall of the gastrointestinal tract of the newborn with no demonstrable aetiology and it is commonly located in the terminal ileum
Aims/Objectives: We report a case of SIP in a preterm low birth weight male neonate, noting its similarities and differences to the better known Necrotizing Enterocolitis (NEC) as a cause of abdominal distension and poor neonatal outcome
Methods: Of particular interest were the rapidity of development of symptoms and the intra-operative findings of multiple large bowel perforations in the absence of necrotic intestinal tissue.
Results: We present this unusual case due to the relative paucity of similar reports in this locale in order to raise awareness and increase the index of suspicion of this close correlate of the better known NEC.
Conclusion & Recommendations: Idiopathic spontaneous intestinal perforation is a distinct clinical entity from necrotizing enterocolitis.

NN9

Cost of neonatal care in Federal Medical Centre Owerri

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Background/Introduction: There is need to know how much is involved in taking care of newborn in hospital
Aims/Objectives: The purpose of this study was to estimate the cost of hospitalization in Special Baby Care unit of Federal Medical Centre Owerri.
Methods: This was a retrospective review of all records of all neonates admitted into the hospital from January 2014 to June 2014. The study group included all admitted term and preterm newborn infants in SCBU. Variables such as presenting complaints, duration of hospital stay, care and services rendered, fee paid for individual services and total fee paid were extracted. Percentage of fee contributed by each of services was calculated. Assessment of mode of payment was also made. Patients whose case notes were missing were excluded from the analysis.
Results: A total of 171 neonates were admitted into the unit. Preterm babies made 39.2% (n=67) of all admissions while 60.8% (n=104) were term. The commonest reason for admission was perinatal asphyxia, 44.3% of all cases, followed by prematurity 41.9%. The major contributors to the cost hospitalization were fees for laboratory (20.09%), drug (18.71%), and Oxygen therapy (8.21%) Total fee paid ranged from N3,400 to N77,690 with an average of N27,762.
About 68% of fathers were self employed. While 30% are paid employees. Ninety nine percent of the fees were paid out of pocket.
Conclusion & Recommendations: Cost of newborn hospitalization is high with laboratory fee being the major contributors. The main mode of payment was out of pocket.

NN10

Scope of neonatal care services in major Nigerian Hospitals

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Background/Introduction: Neonatal survival bespeaks the quality of neonatal care services available and accessible to the population. Intensive care improves outcome of high-risk infants with serious illness. The tiered level of care is yet to be applied to newborn care in Nigeria. Classification of care is key to improving neonatal survival with enhanced referral of high-risk patients to higher-level centres.

Aims/Objectives: To ascertain the scope of and classify available newborn services offered at major Nigerian hospitals.
Methods: A semi-structured validated questionnaire was administered to attendees during 2015 Pediatric Association of Nigeria conference. The information derived was used to categorize neonatal care services.
Results: The respondents consisted of doctors 201 (84.8%) and nurses 36 (15.2%) in 54 health facilities from all geopolitical regions of Nigeria. Of the 54 facilities, 34 (63%) were located in state capitals and 47 (87%) in public hospitals. Half of the evaluated units belonged to Class I, 22 (40.7%) Class II, and 5 (9.3%) Class III levels of neonatal care. Majority (81.6%) of the doctors have been trained on neonatal resuscitation; with senior residents being the highest 49 (89%) and Medical officers (MO) the least 4 (40%) trained. Doctors with training in mechanical ventilation (MV) were 39.2%; Consultants (51.2%), MO's the least 1(11.2%) trained (p=0.025). Monitoring is usually by pulse oximeters 54 (100%), multi parameter monitors 23 (42.6%) and rarely ABGs 6 (11%).
Conclusion & Recommendations: Neonatal care in Nigeria is still developing. Most centres provide basic neonatal care services. Regionalization of care may be the solution to higher level neonatal care.

NN11

Bubble CPAP use in Nigerian tertiary hospitals; the patented and the improvised, how far so far?

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Background/Introduction: CPAP is simple and effective newborn respiratory support. It is used in newborn respiratory and non-respiratory diseases. Early use in preterm infants reduces mortality and need for neonatal intensive care. The patented CPAP machines though effective is expensive for many resource poor countries. This has led to improvised CPAP devices for administering this intervention.
Aims/Objectives: This study ascertains availability of CPAP services and the types used in Nigerian tertiary hospitals.
Methods: The validated questionnaire enquired about the availability of the CPAP device, training on the use of respiratory support and use of such or similar device. The questionnaire was administered to consenting participants during the 2015 edition of the Paediatric Association of Nigeria conference.
Results: 237 questionnaires were returned by respondents representing 54 health facilities from six geopolitical regions of the country. CPAP devise was used in 72% of the evaluated facilities. They are mostly public (87%) tertiary hospitals (76%). Supplemental oxygen (37.6%) was the commonest mode of respiratory support followed distantly by CPAP (3.4%). Improvised CPAP device is used by 47.7% of the respondents. Only 25.3% of the respondents had patented machines located in 33% of the facilities.
Conclusion & Recommendations: CPAP use is high among respondents. This is shared by patented and improvised CPAP due to the high cost of patented devices. CPAP service and devices should urgently be taken to the primary and level health facilities closer to the location in the communities where newborn deaths occur. This shift is key to sustainable decline in Neonatal Mortality Rate in Nigeria.

NN12

The impact of an initial-set point prediction tool for prompt attainment of stability during neonatal incubator care – a comparative study

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Introduction: Recent studies have identified high incidences of abnormal temperatures to be associated with recorded high mortality rate in extremely low birthweight (LBW) neonates that presented at special care baby units (SCBU) of tertiary health institutions in Nigeria. The literature has presented an algorithm (the handy-approach) which is a set of rules that dynamically guides the manipulation of incubator set-points in normalising a neonate's temperature. This does not however specify the initial incubator set-point at the commencement of care to guarantee quick attainment of normotherm. Hence the aim and objectives of the present work was to develop, validate and comparatively assess the impact of an 'initial set-point algorithm (ISA)' on the overall survival of extremely LBW neonates at the University of Abuja Teaching Hospital (UATH).
Methods: The ISA prediction tool was developed to operate with inputs of (1) infant's point-of-admission temperature (2) prevailing environmental temperature and (3) the air temperature of the expectant incubator. Ethical approval was obtained from the UATH Ethical Committee and the developed tool was applied to manage neonates (BW = 600g to 1200g) presented from June 2015 when this study began. The outcome was compared against a set of 'control' comprising all similar cases presented between January 2008 and December 2011 prior to UATH's adoption of the handy-approach. Lifetime temperature plots were generated for each case. Parameters assessed and compared were (1) time lapse before initial thermal stability (2) rate of morbidity and (3) overall survival outcome.
Results: A total of 73 cases were analysed (62 control-samples, Mean (±SD), BW: 995g ± 169g, range: 800g – 1200g and 11 test-samples BW: 1027g ± 162g, range: 800g – 1200g). Average time lapse to initially stabilise each patient was CONTROL: 12.1hrs ± 11.7hrs, range: 0.3hrs – 47.5hrs; TEST: 0.6hr ± 0.7hr, range: 0.1hr – 2.0hrs. Overall, 30 of 62 control-cases died (NNMR: 484/1000) as against no mortality for the 11 test-cases so far recruited. Of nine control-cases with BW≤800g,

only 1 survived, while all three for the test-cases have survived.
Conclusions: Our preliminary results of this ongoing study clearly show that quick effective intervention of deviating body temperature has overwhelming positive impact on neonatal survival. Hence, the use of the Handy-approach and ISA tools may be essential in reducing Nigeria's corporate NNMR.

NN13

Burden of Severe Birth Asphyxia at Federal Medical Centre Asaba. Lessons and Proposal for Alleviation

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Background: Globally, birth asphyxia accounts for approximately 9.4% of all U5 mortality, 27% of neonatal mortality; survivors develop long term neurologic sequelae. Perinatal factors contribute to 90% of birth asphyxia (BA). The incidence, remains high in developing countries.
For Nigeria, the second highest contributor to Neonatal mortality, perinatal Asphyxia is the third commonest cause of mortality (24%).Available data indicates the incidence of 24 /1000 deliveries. Major causes are perinatal, butthe underlying social factor is lack of antenatal care.
Objective: To assess the trend of birth asphyxia over a four year period in an effort to identify a strategy for its reduction so as to impact on reduction of neonatal mortality.
Methods: We reviewed case records of admission to SCBU over March 2010 to December 2014 and extracted the relevant information as the APGAR and the HIE scores. All cases with APGAR of < 3 at 1min or < 5 at 5 minute were extracted and all infants with HIE scores were included.
Results: 356 (161.5/1000) were asphyxiated and 204 (92.6/1000) had HIE in a total of 2203 admissions. The asphyxia rates hovered around 16% over the years. Only 22% cases occurred in the booked mothers. The overall BA mortality was 26,6%. Major causes of neonatal mortality were prematurity, BA, Sepsis and NNJ for an overall neonatal mortality of (128/1000).
Conclusion: BA, the second highest cause of neonatal mortality was an important cause of admission at the FMC Asaba. 22% of BA mothers were booked. Efforts at improving the situation should also target strategies for improving ANC utilization.

NN14

Risk factors for severe neonatal hyperbilirubinaemia at the National Hospital Abuja

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Background: Neonatal hyperbilirubinaemia remains an important cause of neonatal admissions in Nigeria. When severe, it causes irreversible neurotoxicity resulting in death or long term neurological deficits.
Aim: To identify risk factors for severe neonatal jaundice at the national Hospital Abuja to enable appropriate recommendations for the prevention of jaundice related neonatal death/brain injury.
Subjects/Methods: Babies admitted into SCBU and treated for jaundice from April 2015 to May 2015 were consecutively recruited into the study with parental consent. Socio-demographic information and history of common neonatal jaundice risk factors were obtained for statistical analysis. Jaundice was classified as mild (10-14mg/l), moderate (15-24mg/dl) and severe (≥ 25mg/dl).
Results: A total of 123 babies were seen, 68(55.3%) of whom were males with an Inborn/Out born ratio of 1:2.3. Eighty two percent were term. Mild, moderate and severe Jaundice accounted for 44(35.8%), 36(29.3%) and 43(35%) respectively. The mean serum bilirubin level was 21.2(9.3)mg/dl with a range of 10mg/dl-56mg/dl. Although sepsis, ABO/Rh isoimmunization and G6PD deficiency were the most common individual risk factors, over 50% of the babies had multiple risk factors. Being out born (P<0.001), late presentation (P<0.001) and Sepsis(P=0.008) were associated with increased risk of severe jaundice. While Rh isoimmunization was most common in the severe group, the difference was not statistically significant (p=0.07). Thirty two (26%) had signs of acute bilirubin encephalopathy and exchange blood transfusion was done in 50 (40.7%) babies.
Recommendation: There is an urgent need for centrally coordinated public enlightenment program on early identification of neonatal jaundice and implementation of infection control measures in all health care facilities.

NN15

Outcome of newborn admissions in the Special Care Baby Unit of Federal Medical Centre Owerri

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Objective: The purpose of this study was to evaluate the immediate outcome of newborns admitted into the Special Baby Care Unit (SCBU) of Federal Medical Centre (FMC) Owerri.
Study design/Methods: This was a retrospective study carried out in the Special Baby Care Unit of Federal Medical Centre Owerri from January 2014 to June 2014. The subjects included term and preterm newborn infants admitted into the SCBU both those delivered in FMC (inborn) and those delivered outside the hospital (outborn). Using the admission register, case notes of all neonates admitted into SCBU within the study period were retrieved. Variables collected were presenting complaints, diagnosis, care and services rendered and final outcome. Cross tabulation of diagnosis with final outcome was made and where necessary Chi Square was calculated; p<0.05 is considered significant.
Results: A total of 171 neonates were admitted in to the Special care Baby Unit during the study period, 49.1% (n=83) were inborn while 50.9% (n=86) were out born, and place of birth of 2 patient was missing.

The mortality was 6.5% of admission (n=15) during the reviewed period, 9.4% of out born died, while 2.4% of inborn died. Forty seven percent (47%) of deaths was associated with perinatal asphyxia, prematurity 40%, jaundice 6.7% and sepsis 6.7%.
All babies who died required oxygen at some point in the course of illness, while none of those who never required oxygen died.
Conclusion: Asphyxia was the leading cause of death. Newborn illness requiring oxygen therapy has a poorer prognosis. Ninety one percent (91.3%) of the admitted preterms survived.
Keywords: Outcome, Newborn, Federal Medical Centre Owerri.

NN16

Evaluation of umbilical cord serum ferritin in apparently healthy preterm babies at the University of Nigeria Teaching Hospital (UNTH), Enugu

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Background/Introduction: Iron is essential for neurodevelopment. Trans-placental iron accretion occurs maximally in the third trimester, being directly proportional to gestational age (GA) and weight. Thus, preterms are at risk for low iron stores. The neurodevelopmental effects of iron deficiency such as reduced cognition cannot be reversed even with iron supplementation. In neonates, iron stores are best assayed using serum ferritin. In most centers, iron levels are assessed using haemoglobin and iron supplementation is routinely commenced after the second week of life.
Aims/Objectives: To assess the iron stores of preterms at UNTH by determining the prevalence of low serum ferritin, and its relationship with GA, birth weight and gender.
Methods: Seventy preterm and seventy term neonates were studied. Preterms were classified as extreme, moderate and very preterm. Umbilical cord blood taken at delivery was assayed for haemoglobin, ferritin and C-reactive protein. The cutoff for low serum ferritin was 35µg/l. Obtained data was analyzed using SPSS 20.
Results: Serum ferritin had a wide range of 20.6µg/l - 296µg/l amongst preterms. Low serum ferritin was more prevalent in preterms (35.7%) than term neonates (6%). There was a significant positive correlation between serum ferritin and GA (r = 0.513), and birth weight in preterms (r = 0.512). No such correlation existed between male and female preterms.
Conclusion & Recommendations: Serum ferritin should be assayed routinely in all extreme preterm and extreme low birth weight newborns. Also, iron supplementation is recommended for all stable extreme preterms after CRP levels <10ng/ml have ruled out infection/ inflammation.

NN17

Sclerema neonatorum in a term neonate: A case report

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Background: Sclerema neonatorum is a rare inflammatory disease involving the subcutaneous tissue and manifests as hardening of skin and subcutaneous adipose tissue. Untreated, it progresses to interfere with respiration, culminating in death. We present the successful management of this rare condition that affects preterm newborns, however in this case, in a term neonate.
Case report: O.E. was referred to the neonatal unit of the Aminu Kano Teaching hospital, Kano on the 4th day of life with complaints of fever and hardening of the buttocks and back all of 2 days duration. Hardening of skin was first noticed on the buttocks and progressed to the back and extending to the right thigh. Baby was irritable with excessive cry. Examination revealed an irritable newborn, febrile (T= 38.9 ˚C), not pale, tinge of jaundice, indurations of the gluteal skin, back and right thigh which was tender with differential warmth. Fluctuant swellings developed while on admission which were aspirated. Baby had miniESR of 5mm/hr, full blood counts done which was suggestive of sepsis, blood culture showed a gram negative coccobacilli though no organism was cultured, pus aspirate done twice yielded no growth. Baby had double volume EBT done, oral prednisolone 3mg daily for 1 week and antibiotics- IV unasyn and gentamicine were administered for 3 weeks. There was remarkable improvement.
Conclusion: Conventional therapy used in newborn care proves successful in the management of this condition but awareness of this diagnosis is paramount to early initiation of appropriate treatment.
Key words: Sclerema neonatorum, sepsis, antibiotics.

NN18

Prevalence and risk factors for foetal malnutrition in term babies delivered at the University of Port Harcourt Teaching Hospital

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Background: Foetal malnutrition (FM) is a "clinical state of a baby of any birth weight (BW), characterised by obvious intrauterine loss or failure to acquire normal amounts of subcutaneous fat and muscle mass, manifesting as wasting, shortfalls in weight, length and other anthropometric measurements." It is associated with increased morbidity and mortality in the newborn.
Aim: To determine prevalence of, and risk factors asso-

ciated with FM in Port Harcourt, Nigeria
Method: This was a prospectivehospital-based study, carried out at the Labour Wards of the University of Port Harcourt Teaching Hospital. Baby-mother pairs who met the inclusion criteria for the study were recruited consecutively.Relevant biodata were recorded, and babies' nutritional status were assessed using the Clinical Assessment of Nutritional Status Score (CANScore) chart. Data were entered into a Microsoft excel sheet and analysed using standard statistical tools.
Results: Of 300 newborns studied,176(58.7%) were males and 124(41.3%) females with a M:F ratio of 1.4:1. The prevalence of FM was (16.7%). Babies with FM had significantly lower anthropometric indices (length, OFC and MUAC) than their counterparts (p=0.00). Being small for gestational age, and non-use of at least one dose of intermittent preventive treatment for malaria in pregnancy were significantly associated with occurrence of FM (p<0.005).
Conclusion: The prevalence of FM in Port Harcourt is high and highlights the need for evolving appropriate interventions and strategies for its prevention

NN19

Pattern of weight gain amongst babies with fetal malnutrition in Port Harcourt, Nigeria

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Background: Postnatal growth depends on several factors including genetic potential and intrauterine growth. Follow up of babies with foetal malnutrition (FM) in relation to their postnatal growth speed as well as the catch-up and catch-down phenomena is important in to allow early intervention.
Aim: To determine pattern of weight gain in term newborns with FM in comparison with their well nourished counterparts in the first 6 weeks of life.
Methods: This was a comparative study of pattern of weight gain in term babies with and without FM delivered in the UPTH. Apparently well term infants were recruited consecutively in the labour wards shortly after birth for the study. The CANSCORE was used to determine nutritional status of the babies within the first 24 hours of life. Birth weights and other anthropometric indices were obtained at birth and at 6 weeks. Data were analysed using standard statistical methods.
Results: There were 176 males and 124 females (M:F ratio = 1.4:1). Birth weights ranged from 1550.0g to 4700.0g with a mean of 3281.8±505.1g.Fifty babies (16.7%) had FM. Mean weight at six weeks of babies with FM was 4512.9±616.7g, compared to 4881.1±749.7g, for babies without FM. Mean weight gain of babies with FM was 1,746.87±510.0g, compared with 1,492.67±649.6g for babies without FM. The difference was statistically significant (*t*=2.46; p=0.02). However, despite higher mean weight gain at six weeks, babies with FM had lower overall weights.
Conclusion: There is persistence of low weight at six weeks despite better mean weight gain in babies with fetal malnutrition.

NN20

Case Report: Pantoea spp - a rare cause of complicated neonatal sepsis in the neonatal unit of ESUTH/ Parklane, Enugu

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Background/Introduction: Neonatal sepsis is a significant cause of neonatal mortality and morbidity. Effective management is key to neonatal survival and well-being. Blood culture plays a central role in antimicrobial therapy. With-holding antimicrobial therapy while waiting for culture results can lead to delays in treatment. Thus, empirical treatment with antimicrobials based on local culture sensitivity patterns is often necessary. Rare organisms are not usually represented on routine culture plates and are thus often missed on blood culture.
Aims/Objectives: We describe a rare organism Pantoea spp identified as a cause of an atypical presentation of neonatal sepsis.
Case presentation: Baby UO, a male neonate delivered at GA 37weeks through emergency c/s on account of maternal pre-eclampsia. APGAR was 5:1. After vigorous resuscitation with PPV, APGAR improved to 7:5. The admitting diagnosis was Moderate Perinatal Asphyxia. He received IVF, steroids and antibiotics. Over the next few days he developed abdominal distension progressing to subcutaneous emphysema of the abdomen and chest. Chest and abdominal X-ray showed massive pneumoperitoneum with subcutaneous emphysema. Blood culture showed Pantoea spp. sensitive to Meroponem and resistant to most other antibiotics. He received IV Meronem and metronidazole. On the 10th DOL he had an abdominocentesis during which a large amount of gas was released. By the 21st DOL, abdominal distension and vitals had stabilized. He was discharged on 29th DOL and is currently stable.
Conclusion & Recommendations: Spontaneously occurring Pantoea bacteremia is rare in neonates. A high index of suspicion and adequate antimicrobial therapy are paramount for prompt and effective treatment.

NN21

Knowledge of Traditional Birth Attendants (TBA's) On detection, Causes, Treatment and complications of Neonatal Jaundice in Kano Metropolis

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Background: Neonatal jaundice and its attendant complications continue to be a growing concern in Sub-saharan Africa.
In Northern Nigeria, about 80% of deliveries takes place

at home. Due to proximity and cultural practices, the TBA's are the first point of contact with mothers at delivery and in the early neonatal period. With the high prevalence of NNJ, also accounting for8% of neonatal deaths, and the proven effectiveness of health education in prevention of kernicterus, there is a need to assess and improve the knowledge of TBA's in early identification of NNJ and early referral.
Methodology: A cross sectional community-based study was conducted on 47 TBA's from 6 metropolitan areas in Kano. Pre and post test Interviewer administered questionnaires were filled, analyzed and compared. The percentage difference of responses between the two tests were also obtained. Focused group discussions were done to the TBAs in small groups of 20. The interview was recorded in writing as well as wudio
Results: A total of 47 TBAs were enrolled. Two declined for the test. 1 absconded for the post-test, so 44 were analysed.
For the pretest, the minimum score obtained was 15 (2.3%), while the maximum Score was 35 (2.3%). Majority of the respondents (70%) scored 50% of the points obtainable.
For the post-test, a minimum score of 25 (2.3%), and a maximum score of 36 (13.6%)were recorded, with 100% scoring over 50%. The focus group discussion result: A lot of the TBAs believed that the cause is congenital mostly due ingestion of bitter or oily substances by the mother during pregnancy. Others believed that pregnant woman should take certain herbs during pregnancy failure of which leads to jaundice. For this reason they believed that less cases of jaundice are seen as the intake of traditional medication increases during pregnancy.
Effect of jaundice. While some participants believed that jaundiced babies who are not treated end up losing their lives others believed that a jaundiced baby that is not treated can survive but the baby will have poor growth and development.
Conclusion: The present study showed poor knowledge and practices of TBA on neonatal jaundice improvement in the knowledge of neonatal jaundice amongst TBA's in pre and post test results.

NN22

Knowledge, attitude and practice of pregnant mothers attending ANC on neonatal jaundice in Kano metropolis

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Background: Neonatal jaundice is the visible manifestation of unconjugated hyperbilirubinaemia and is a significant cause of neonatal morbidity and mortality. It accounts for 8% of neonatal deaths in Sub Saharan
Africa and 20% of hospital admissions in Nigeria. Kano State has a population of about 10million people and a fertility rate of about 7.4 with only 3 hospitals that admit neonates in the state.
Objective: To determine the knowledge, attitude and practice of pregnant mothers attending antenatal care on neonatal jaundice in Kano metropolitan.
Methodology: The study was a cross sectional descriptive community based one which involved 424 pregnant mothers attending antenatal care across maternity centers from six metropolitan local governments based on convenient sampling. Questionnaire based interview was conducted following their consent.
Results: A total of 424 pregnant mothers were studied of which 57.3% were of parity 1 – 3. Many did not know their blood and Rhesus groups (52% and59%) respectively. Majority of them (95.5%) did not know what neonatal jaundice is, however99.8% believed that jaundice is abnormal. Only 14.9% had previous babies with jaundice and many used glucose water. Mode of cord care was via heat compress in 70.8%. Majority did not use icterogenic substances but most of them (80%) did not know the causes of jaundice and its complications. Many mothers start breastfeeding on time and adequately, however most of them used prelacteal feeds.
Conclusion: There is an urgent need for improved awareness on neonatal jaundice, its risk factors, causes and complications through health education of women and potential mothers particularly at the community level.

NN23

Infantile hemangioendothelioma of the liver in a Nigerian newborn: a case report

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Background: Hepatic hemangioendothelioma though rare, is the most common benign vascular tumour of the liver in infancy and the most common symptomatic
hepatic tumour presenting in the first 6 months of life. Its ability to present with life threatening complications such as congestive cardiac failure and thrombocytopenia should heighten clinical suspicion of this condition in newborns presenting with an abdominal mass .
Owing to the rarity of the condition, there is no structured therapeutic research, but a small number of cases have been reported to respond well to treatment withsteroid. In a bid to create awareness to the existence of this rare condition in our environment, we report a case of symptomatic hemangioendothelioma in a newborn and challenges that can be encountered during management in our environment.
Case Report: Baby O.A is a 22 day old female neonate who presented with an abdominal mass noted at birth. Diagnosis was made based on clinical findings and results of abdominal ultrasound scan and CT scan which were in keeping with a hepatic hemangioendothelioma. She was treated with oral prednisolone, propanolol and aggresive supportive treatment with blood and platelet concentrates transfusions. Her management was severely hampered by challenges in obtaining a histologic diagnosis, financial constraints and unavailability of

appropriate diagnostic tools. She was discharged and is being followed up at the outpatient clinics.
Conclusion: Hemangioendothelioma should be considered in the differential diagnosis of infants presenting with an abdominal mass in the newborn period as it could be associated with significant morbidity and mortality requiring aggressive treatment and meticulous supportive care.
Keywords: Haemangioendothelioma, newborn, tumour

NN24
Prevalence and risk factors for kernicterus in Nigeria

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Background: Kernicterus accounts for about 6% of neonatal deaths in Nigeria. The reasons for the high rate of acute bilirubin encephalopathy (ABE) are not fully understood.
Objective: To determine the prevalence and risk factors for ABE in 5 regions in Nigeria.
Design/Methods: A collaborative prospective observational study was performed in 9 major hospitals in Kano (2), Zaria, Jos (4), Lagos, and Asaba. We gathered demographic data, perinatal history and laboratory data from patients treated for jaundice. We compared data from neonates with and without ABE to identify the root causes of ABE in this population.
Results: Collectively, 160/1026 (15.6%) jaundiced neonates had ABE, representing an average 2.8 ABE cases/ center/month.
Behavioral factors associated with ABE (P <0.001) included delayed admission >3 days (X^2 18.24, OR 2.06), travel distance to hospital >15 km (X^2 13.28),lack of maternal knowledge about jaundice (X^2 25.57, OR 2.96) and home deliveries (X^2 51.0, OR 3.9).
Clinical factors associated with ABE (P <0.01) included LBW, blood type incompatibility, anemia, and sepsis. ABE occurred in 35/204neonates with ABO 3/35 with Rh incompatibility. Thirteen ABE cases had sepsis. 27neonates with severe hemolytic anemia (TSB>20 and hematocrit<30%) probably had G6PD deficiency.
Conclusions: Delayed treatment of severe jaundice, mainly from a lack of knowledge, is a major cause of ABE. Increasing public awareness about jaundice and unsafe practices about G6PD deficiency, closer monitoring of LBW neonates, and providing jaundice services closer home, promise to reduce ABE in Nigeria.
Funding: Saving Lives at Birth, FOG Award No AID-OAA-F-13-00072

NN25
The burden of perinatal asphyxia at University college hospital, Ibadan

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Background/Introduction: Perinatal asphyxia accounts for one-third of neonatal mortality globally especially in developing countries like Nigeria. It is also associated with significant neonatal and long term morbidity.
Aims/Objectives: To describe the prevalence of asphyxia, its risk factors and complications among admitted neonates in UCH, Ibadan.
Methods: 82 neonates diagnosed as severe perinatal asphyxia admitted over a five month period were recruited and their parameters described. Severe asphyxia was defined as APGAR score of < 3 at 1 minute and <5 at 5minutes, failure to initiate or sustain breathing at birth and presence of signs of neonatal encephalopathy. Investigations include electrolytes, urea and creatinine, urinalysis, urine SG, electrocardiogram amongst others.
Results: 70% of the babies were out born. Risk factors identified were male sex, place of ANC, number of ANC visit, duration of ANC visits and maternal educational status. Complications were encephalopathy 52.6%, respiratory distress 87.2%, sepsis 78.2%, AKI 37.2%. Mortality rate was 24.3% and 52.6% of these deaths occurred within 24 hours of admission. 18.6% of survivors had neurologic deficit on discharge.
Conclusion & Recommendations: Perinatal asphyxia remains a major contributor to neonatal morbidity and mortality in UCH, Ibadan

NN26
Neonatal Jaundice in University of Port Harcourt Teaching Hospital

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Background: Acute bilirubin encephalopathy (ABE) has remained a common cause of morbidity and mortality in Nigeria
Aim: This study aimed to determine pattern and risk factors for NNJ at the University of Port Harcourt Teaching Hospital
Methods: This was a prospective descriptive study of all babies with NNJ managed at the SCBU of UPTH from March 2014 to October 2015. They were consecutively recruited and information on socio demographics, risk factors, treatment and outcome was obtained. Data was analysed using SPSS version 20.0.
Results: NNJ accounted for 18.4% of all admissions. Of 149 neonates managed for NNJ, 53.7% were males and 46.3% females (M:F = 1.2:1). Ninety six (64.4%) were

inborn, 53(35.6%) out born, and 79 (53%) were term babies. Most 138 (92.6%) were delivered in health facilities and presented within 72hrs of life. Mother's level of education did not significantly influence duration of symptoms before presentation (P=0.996). Sepsis, prematurity and ABO incompatibility were the common risk factors. Thirty seven (24.8%) had SB ≥ 340umol/L. Exchange blood transfusion was done in 46(30.9%), including 6 babies (4%) with signs of ABE. There was no statistically significant relationship between risk of developing ABE and gestational age (P=0.439). All babies with encephalopathy were discharged home.
Conclusion: NNJ has remained a major cause of neonatal morbidity however the incidence of ABE in our unit was low possibly due to early intervention.
Key words: Neonates, Jaundice, risk factors, Port Harcourt

NN27

Morbidity and mortality patterns of admissions into the Special Care Baby Unit of University of Port Harcourt Teaching Hospital, Rivers State, Nigeria

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Background: Neonatal mortality is the highest contributor to under-5 mortality in Nigeria and Sub Saharan Africa and has greatly impacted on the attainment of millennium development goals 4 (MDG 4).
Objective: To determine the morbidity and mortality patterns of patients admitted into the Special Care Baby Unit (SCBU) of the University of Port Harcourt Teaching Hospital (UPTH), Rivers State, Nigeria.
Method: A retrospective analysis of records of patients admitted into the SCBU of the UPTH over a 12 month period from September 2014 to August 2014 was carried out.
Result: A total of 622 patients were admitted into the unit during the period, there were 332 (53.4%) males, and 290 (46.6%) females giving a male to female ratio of 1.1:1. Neonatal sepsis (32.2%), neonatal jaundice (14.4%), severe birth asphyxia (13%), and prematurity (11.1%) were the major indications for admission. 54.5% were admitted into the inborn section and 45.5 % into the out-born section of SCBU. About a third (31.3%) of babies were admitted in the first week of life, while 16.8% were admitted between 8-28days of life. The overall neonatal mortality rate was 14.6% and the discharge against medical advice (DAMA) rate was 17.8%. Severe birth asphyxia was higher amongst outborns (p=0.000). Mortality rate was also significantly higher in outborns (p=0.001). The commonest reason for DAMA was lack of funds for continued care.
Conclusion: Majority of admissions were preventable conditions. Enhancement of good antenatal and delivery services, and implementation of the National Health Insurance Scheme for neonatal services will assist in reducing neonatal morbidity andmortality.

PC 1

Case report atrial myxoma a rare cause of cerebro vascular disease in children

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Background: Cardiac myxoma is a rare cause of cerebrovascular disease (CVD), especially in African children in which the commonest cause is Sickle cell disease. CVD is however the commonest manifestation of cardiac myxoma in paediatric age group.
Case presentation: 11 year old female presented with a 5hrs history of dizziness, headache, inability to walk and vomiting. On examination, she had a stiff neck, bilaterally dilated pupils, a left CN V1, VII palsy, decreased power, tone and reflexes in left upper and lower limb. MRI of the brain showed subacute Rt thalamic infarct, She was managed for complicated Meningitis. 3months, later she collapsed with complaints of heaviness of the Rt side of the body and inability to walk. Examination revealed cold legs bilaterally with very low volume dorsalis pedis pulsation. ECG showed sinus rhythm, left atrial hypertrophy, and left ventricular hypertrophy. Vascular ultra sound of both legs showed deep focal vein clot in Rt common iliac vein. A transthoracic echocardiography revealed a mobile mass in the left atrium (myxoma) measuring 3.9 by 2.6cm, impinging on the mitral valve, a dilated left atrium and multiple ectopic beats. A diagnosis of Left a trial myxoma with intermittent arrhythmia and multiple thromboembolic events was made. She was placed on anticoagulants, physiotherapy and referred for surgical resection of cardiac tumor. She died after 10months while awaiting surgery due to financial constraints.
Conclusion: Echocardiography should be done early in children presenting with ischemic thromboembolic diseases in order to reduce morbidity and mortality resulting from cardiac pathology.

PC2

Blood pressure profile among apparently healthy primary school children in Kano Metropolis, Nigeria

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Background: In an attempt to study and prevent the development of hypertension in adults, there is a growing interest in measuring blood pressure in children because the nature of essential hypertension may be more clearly understood if it could be studied early in the course of its natural history. Age, sex, family history of hypertension, environmental factors and anthropometric indices are known to affect arterial blood pressure levels.

Objectives: To determine the blood pressure profiles among apparently healthy primary school children in Kano metropolis.
Methodology: This was a cross sectional prospective study of 2000 apparently healthy children aged 6-14 years carried out between February and October 2013. Blood pressure was measured with mercury sphygmomanometer using standard technique. The first and fifth phases of korotk off sounds were taken as indicative of systolic and diastolic blood pressure respectively. The data were analyzed using SPSS version 16.0 and a p value of <0.05 was regarded as statistically significant.
Results: The overall mean systolic blood pressure (SBP) and mean diastolic blood pressure (DBP) were 93.8+8.91 and 59.8+6.95 mmHg. Mean SBP among males and females were 93.17+8.70 and 94.28+9.06 mmHg while DBP were 59.1+6.9 and 60.3+6.9 mmHg respectively. The differences were statistically significant.
Body mass index (BMI) was found to correlate significantly with systolic and diastolic blood pressure in both genders.
Mean blood pressures correlate with BMI and were found to be higher among females than that of males which is similar to studies done elsewhere.
Key words: Blood Pressure, Children, Kano

PC3
Transposition Of The Great Arteries As Seen At The Lagos State University Teaching Hospital

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Background: Palliative and definitive interventions to manage children with transposition of the great arteries are currently not available in Nigeria and there are limited reports on it in Africa and sub-Saharan Africa.
Methods: A prospective and cross sectional study involving consecutive patients diagnosed with transposition of the great arteries using clinical evaluation and echocardiography at the Paediatric Department of Lagos State University Teaching Hospital, Lagos Nigeria as part of a large study between January 2007 and December 2014.
Results: There were 48 cases of TGA with a male to female ratio of 2:1. Its prevalence amongst children with congenital heart disease was 4.9% , while it was 15.4% among those with cyanotic congenital heart disease. The mean age $\pm$ SD of the subjects was 10.3±21.8 months. Up to 70% of the patients were less than 6 months of age at presentation. The most common mode of presentation was cyanosis. The most common associated intracardiac anomaly was ventricular septal defect.
Conclusion: Transposition of the great arteries is as common in Nigeria as in the other parts of the world. There is an urgent need to establish Paediatric cardiac centres in Nigeria if these children are to be salvaged.

Keywords: Transposition, great, arteries, children, Nigeria.

PC4
Thoracic ectopic cordis in a Nigerian Child

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Introduction: The last documented report of a case of ectopic cordis in Nigeria was over two decades ago. In view of its rarity, we discuss a case of thoracic ectopiacordis in a Nigerian child.
Case Report: The patient was a female infant admitted on the tenth day of life with a history of a defect in the upper third of the anterior chest wall noticed from birth. She was delivered to a 24years old primiparous woman. Examination revealed a female infant who had a defect on her manubro-sternum with a pulsating heart covered by the pericardium visible through the defect. Her pulses were normal with normal heart rate. Other systemic exams were normal. An initial diagnosis of thoracic ectopiacordis was made. Echocardiograph revealed a dextrorotated heart with situs solitus, 2mm Patent Ductus Arteriosus and a patent foramen ovale. Surgery was delayed till after four weeks on admission due to financial constraint. She had wound breakdown which was well managed and she was discharged. She was readmitted about two months later with three day history of fever and one day history of repeated convulsions. She was febrile (40.1^0C), pale, in respiratory distress. She was also, tachypneic, tachycardic, and lethargic with a bulging anterior fontanelle. A presumptive diagnosis of septicaemia with meningitis. Intravenous antibiotics were commenced immediately. Unfortunately she succumbed within 12 hours of readmission at the age of seven months.
Conclusion: Ectopiacordisis generally uncommon with few survivors. Management of ectopiacordis is extremely challenging.

PC5
Cardiomyopathies among Children attending a tertiary Hospital in South-WesternNigeria

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Background: Acquired heart diseases (AHD) such as myocarditis, cardiomyopathies and rheumatic heart diseases are important non-communicable diseases respon-

sible for morbidity and mortality in children. We aim to describe the pattern and distribution of cardiomyopathies in children less than 13 years in a tertiary hospital in Southwestern Nigeria and compare with patterns in the sub-region.
Methods: Prospective and cross sectional, involving consecutive patients diagnosed with cardiomyopathy using echocardiography at the Paediatric Department of Lagos State University Teaching Hospital (LASUTH) Lagos Nigeria between January 2007 and December 2014.
Results: Cardiomyopathy was documented in 31 (2.75%) children with structural heart disease and constituted 25% of patients with acquired heart disease during the study period. The prevalence of cardiomyopathy amongst the children attending the Department of Paediatrics, LASUTH was 9 in 100,000 children over an 8 year period. The mean age of the children was 5.48 ± 4.0 with male to female ratio of 1:1.30. Congestive cardiac failure was the commonest indication for echocardiography, in 48.38% of all the patients. Dilated cardiomyopathy was the most common disease accounting for 71% of the cardiomyopathies, followed by Hypertrophic cardiomyopathy (HCM,)(16.1%) and Restrictive Cardiomyopathy (RCM)(12.9%) respectively. The subjects with DCM were younger than both HCM and RCM.
Conclusion: Cardiomyopathy is an important cause of congestive cardiac failure in children. DCM is the predominant type of cardiomyopathy in our subjects followed by HCM and RCM. Children with DCM were younger than those with HCM and RCM. EMF is the predominant form of RCM in our subjects.
Keywords: Cardiomyopathy, Children, Acquired, Congestive, Cardiac, Failure , Hypertrophic, Restrictive

PC6

Dextrocardia with situs inversus totalis in an 8 year old girl: A case report

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Background: Dextrocardia is a congenital anomaly of the heart characterized by the location of the heart on the right side, instead of on the left side in the foetus[3,6]. It can also be associated with situs inversus totalis which also is a rare congenital anomaly characterized by a mirror image positioning of major abdominal and thoracic viscera.
Case report: We report the occurrence of dextrocardia with situs inversus totalis in an 8 year old female in order to highlight the need for appropriate newborn examination and challenges associated with management in low income settings She presented with recurrent respiratory symptoms from birth which usually responded to bronchodilators. Although she was delivered in a hospital, ano-rectal malformation was detected at 3 weeks of age. At presentation, the only abnormality noticed was the apex beat which was palpated at the 5th right intercostals space, mid clavicular line. Chest x-ray, Chest CT and echocardiography revealed dextrocardia with no focal lung lesion. The abdominal ultrasound and CT scan showed complete transposition of the abdominal viscera. She was managed for bronchial asthma but defaulted in follow-up visits.
Conclusion: A thorough examination of all newborns is required for early diagnosis and appropriate counseling is necessary to allay fears and correct misconceptions.

PC7

Blood pressure to height ratio as a screening tool for pre-hypertension and hypertension in adolescents

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Background/Introduction: Current methods of detection of children with hypertension are cumbersome and contribute to under-diagnosis hence the need to generate simpler diagnostic tools. The blood pressure to height ratio has recently been proposed as a novel screening tool for pre-hypertension and hypertension in some populations. We evaluated its applicability in our environment.
Aims/Objectives: To evaluate the BPHR as a screening tool for high blood pressure in a group of black adolescents using blood pressures derived by the auscultatory method.
Methods: The weights, heights and blood pressure measurements of 2,364 apparently healthy adolescents were determined. Sex-specific systolic and diastolic blood pressure to height ratios (SBPHR) and (DBPHR) were calculated and their ability to detect prehypertension and hypertension was determined using Receiver Operating Curves (ROC). Discriminatory ability was measured by the area under the curve (AUC) and optimal cut-off points along the curve were determined. A p value of <0.05 was considered statistically significant.
Results: The SBPHR and DBPHR were similar across all age groups and sexes. The AUC of SBPHR and DBPHR for diagnosing prehypertension and hypertension by sex was > 0.95 for both diastolic and systolic hypertension in both sexes. It ranged between 0.803 and 0.922 for pre-hypertension and 0.954-0.978 for hypertension indicating higher accuracy for hypertension. Sensitivity was higher for systolic and diastolic hypertension (90-98%) compared with pre-hypertension (87-98%). Specificity was lower than sensitivity across all categories of hypertension and prehypertension (0.64 to 0.88%) though higher for hypertension (0.75-0.88) compared with pre-hypertension (0.64-0.75).
Conclusion & Recommendations: BPHR is a useful screening tool for prehypertension and hypertension in black adolescents. Accuracy increased with higher degrees of hypertension.

PC8

Spectrum of structural cardiac diseases in children in Gwagwalada metropolis and its environs: a two-year prospective echocardiography review

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Background: Cardiac anomaly remains an important contributor to childhood morbidity and mortality. Early diagnosis is critical to preventing complications and mortality. Echocardiographic evaluation is the gold standard for the diagnosis of structural heart diseases.
Objective: To review the spectrum of structural heart diseases prevalent in Gwagwalada metropolis and its environs.
Methods: Consecutive children referred to the Paediatric Cardiology Unit of University of Abuja Teaching Hospital over a 2-year period were recruited and all had echocardiography performed.
Results: Echocardiograms were performed on 362 children within the study period. The age range was 1 day to 16 years. There were 185 males and 177 females, giving a male to female ratio of 1.05:1. Normal scan was recorded in 104 (28.7%) children; while 110 (30.4%) children had congenital malformation and 38 (10.5%) had acquired heart diseases. Myocarditis (11, 28.9%), pericarditis (6, 15.8%), rheumatic heart diseases (6, 15.8%) and dilated cardiomyopathy (4, 10.5%) were the predominant acquired heart diseases, while ventricular septal defect (52, 47.3%), atrial septal defect (43, 39.1%), pulmonary stenosis (27, 24.5%) and patent ductus arteriosus (25, 22.7%) predominate in the congenital group.
Discussion and Conclusions: The predominance of congenital heart diseases in this locality spells the need for provision of adequate facilities for treatment of children with these disorders. A study on factors accounting for the high prevalence of congenital heart diseases in this environment is highly recommended.

PC9

Pre-anesthetic echocardiographic findings in children undergoing non cardiac surgery at the University of Benin Teaching Hospital, Nigeria

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Background: Pre-anesthestic echocardiogram (echo) is requested certain non-cardiac surgeries to identify possible structural cardiac anomalies. They are referred because it is the standard of care or because of suspected cardiovascular abnormality on clinical evaluation.
Objective: To describe the prevalence and spectrum of structural cardiac abnormalities seen in various non-cardiac conditions referred for echocardiography.
Methods: A 5 year retrospective review of pre-anesthetic echos performed for children undergoing surgery was done. The requests were categorized according to referring specialties, into ophthalmology, dentistry, ENT and others. The biodata and echo findings were noted. Analysis was done with SPSS 20.0.
Results: A total of 181 children with same number of echos were studied, 100(55.2%) were males. Most 87 (48.1%) with oro-facial clefts were from Dentistry. Of the 181, 39 (21.5%) had cardiac abnormalities. Most 34 (87.2%) were congenital heart disease (CHD). Ophthalmic requests with suspected congenital Rubella syndrome (CRS) had the highest prevalence 8/12(66.7%) while the least was oro-facial clefts 15/87(17.2%). Atrial septal defect was the commonest abnormality in 14 (35.9%).
Conclusion: Pre-anesthetic echo should be performed especially for children with suspected CRS and other congenital anomalies requiring non cardiac surgery.
Keywords: Pre-anesthetic; echocardiography; children; non cardiac surgery; congenital rubella syndrome; cleft lip and palate; Nigeria

PC10

Prevalence of Rheumatic Heart Disease detected by echocardiographic screeening: a community-based study of school children in Port Harcourt Local Government Area, Rivers state, Nigeria

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Background: Rheumatic heart disease (RHD) is an important public health problem in developing countries. Community-based studies using portable echocardiography have enhanced detection of RHD for early intervention.
Objectives: To determine the prevalence of RHD among school children in Port Harcourt Local Government Area (PHALGA), the pattern of valvular involvement (s), the relationship of the disease with certain risk factors (such as overcrowding and socioeconomic status) and to ascertain the sensitivity, specificity and positive predictive value of cardiac auscultation in detecting RHD.
Methods: A total 461 students aged 5-15 years were selected by multi-staged sampling from thirteen schools in PHALGA. Questionnaires were used to obtain relevant information on history suggestive of rheumatic fever or RHD and parents' occupation and level of education. Subsequently, all the selected students had cardiac auscultation and echocardiographic examination.
Result: The study revealed an RHD prevalence rate of 4.3 per 1,000 students using cardiac auscultation and 6.5 per 1,000 students using echocardiography only. All (100%) of the affected students with RHD were within the age category of 11-15 years and were females. Mitral regurgitation (66.7%) was the commonest valvular lesion seen. There was significant association between RHD and overcrowding (p=0.04), while 66.7% be-

longed to the middle socioeconomic class (SEC) and 33.3% to the low SEC. Cardiac auscultation is 66.7% sensitive and 98.7% specific in detecting RHD with a positive predictive value of 25% when compared with echocardiography.
Conclusion: Early diagnosis and prompt treatment of RHD is recommended.
Key words: Rheumatic Heart Disease, Echocardiography, School Children

PC11

Prevalence and interrelationship of over-nutrition and prehypertension/hypertension among primary school children in non-urban areas of mid-western Nigeria

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Background: There is an emerging problem of over-nutrition, ON (obesity and overweight) in developing countries, which could be associated with the increasing prevalence of cardiovascular disorders, particularly elevated blood pressure, EBP (prehypertension and hypertension). However, data are limited on the size of the problems in primary school children, particularly those in non-urban areas.
Aims and Objectives: To determine the prevalence of ON and EBP and the relationship between them among non-urban primary school children.
Methodology: 1187 children aged 6-11 years were recruited from schools in Esan West Local Government Area of Edo State, Nigeria through multistage sampling in 2013. Their body mass index and blood pressures were determined and classified using standard methods. The statistical significance of the difference in prevalence between groups were determined using Fisher exact test, with the level of significance set at $p<0.05$.
Results: 17 (1.4%) were obese and 41 (3.4%) overweight, giving a total prevalence of ON of 4.8%. 44 (3.7%) had prehypertension and 35 (2.9%) hypertension, giving a total prevalence of EBP of 6.7%. 10/58 pupils with ON versus 69/1129 pupils without ON (odds ratio (95% CI) = 3.2 (1.55, 6.60), $p = 0.007$) had EBP. Only 10/79 cases of EBP (9/35 cases of prehypertension versus 1/44 cases of hypertension (OR (95% CI) = 14.88 (1.78, 124.3), $p = 0.005$) were in children with ON.
Conclusion: Both the prevalence of ON and the prevalence of EBP are within the lower range of the prevalence in urban areas. However, although the prevalence of EBP is higher in children with ON, using the criterion of ON grossly underestimates the risk of EBP.
Keywords: Elevated blood pressure; Interrelationship; Mid-western Nigeria; Over-nutrition; Prevalence; Non-urban areas.

PC12

Comparison of obesity, overweight and elevated blood pressure in children attending public and private primary schools in Benin City, Nigeria

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Background: Overweight and obesity in children and adolescents is on the rise globally. It is perceived that children of the affluent who are attending private schools may be more affected than those in public schools.
Objective: To compare the prevalence of overweight, obesity and elevated blood pressure (BP) in pupils attending public and private primary schools in an urban community in Benin City.
Methods: In this cross sectional study, the BMI and BP of pupils in public and private primary schools, recruited by multistage sampling method, were measured. Their nutritional status was categorized using their BMI percentiles. BP variable were based on Fourth Blood Pressure report. Analysis was by SPSS.
Results: A total of 1466 pupils were recruited, 814 (55.5%) were in public schools and 722(49.2%) were males. The prevalence of overweight and obesity respectively was higher in private schools 11.8% and 11.7% compared to public schools 3.3% and 0.9%, p = <0.0001. The mean systolic BP of pupils in public schools 96.8 ± 12.5 mmHg was higher than that in private schools 95.5 ± 10.2 mmHg, p = 0.032. The prevalence of pre-hypertension and hypertension between pupils in public and private schools was not significant, p = >0.05.
Conclusion: The prevalence of overweight and obesity is higher in pupils attending private schools compared to those in public school while pre-hypertension and hypertension was not significantly different between the school types. Urgent measures are needed to stem the tide of overweigh/obesity through education, weight reduction and physical activity programmes especially in pupils attending private schools.
Keywords: Blood pressure, body mass index, obesity, overweight, private schools

PC13

Prevalence and types of congenital heart disease in children with Down syndrome in the University of Benin Teaching

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Introduction: Down syndrome (DS) is the commonest chromosomal disorder. Children with DS are prone to having congenital heart diseases (CHD) and a variety of CHDs have been described in DS. Most previous Nigerian studies have small numbers
Objective: determine the prevalence and types of CHDs seen in children with DS in UBTH.
Method: Consecutive child with clinical features of DS seen in the wards or out-patient clinics of the UBTH between July 2012 and December 2013 was referred for echocardiography and prospectively recruited for the study. The bio data of the child and parents were noted. The CHD was confirmed on echocardiography, their number and types were noted. Analysis was done with SPSS 20.0.
Results: A total of 64 children with DS were recruited, of which 36(%) were female. Their ages ranged from 2 days to 15 years. Mean paternal and maternal ages were 42.9 ± 7.3 years (range: 30 - 60 years) and 36.2 ± 5.7 years (range: 23 - 50 years) respectively. The prevalence of CHD was 51(79.7%). Most 49(96.1%) were acyanotic CHDs. Commonest CHD was atrioventricular septal defect (AVSD) in 20(39.2%), followed by Atrial septal defect 11(21.6%). The least was persistent truncusarteriosus (PTA) in 1(2.0%).
Conclusion: The prevalence of CHDs in DS children was high in this study. The commonest is AVSD and the types included cyanotic CHDs. Children with suspected DS should be evaluated to exclude CHDs.
Keywords: Down syndrome; congenital heart disease; echocardiography

PC14

Cardiac disorders in children with HIV/AIDS at the University College Hospital, Ibadan, Nigeria

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Background: Cardiovascular abnormalities have been reported as a serious complication of human immunodeficiency virus (HIV) infection. They contribute significantly to the morbidity and mortality associated with the disease, which still has a high burden in sub-Saharan Africa. Routine and periodic cardiovascular evaluation have however, not been incorporated into the HIV management protocol in most settings in Africa.
Objective: To determine the prevalence, pattern and associations of cardiac disorders in children with HIV/AIDS at the University College Hospital (UCH), Ibadan.
Methodology: Across-sectional study that involved 156 HIV infected children aged 15 years and below. Aspects of their cardiovascular function were determined by clinical examination, chest radiograph, electrocardiography and echocardiography. They also had laboratory estimation of CD4 count, CD4 percentage and HIV viral load.
Results: Cardiac disorders were detected by echocardiography in 79 (50.6%), by ECG in 60 (38.5%) and chest radiograph in 10 (6.4%) of the 156 children studied. The major cardiac disorders encountered included depressed ejection fraction (30.1%), dilated cardiomyopathy (7.1%), pulmonary hypertension (7.1%), sinus tachycardia (17.3%), right ventricular hypertrophy (11.5%), cardiomegaly (5.1%) and symptomatic congestive heart failure (1.3%). The overall prevalence of cardiac disorders was 66.7%. Both ECG and ECHO abnormalities were commoner in males, ART naïve participants, those with advanced stage of HIV disease and severe immunosuppression.
Conclusion: Cardiac disorders in HIV infection are not uncommon and may be asymptomatic. It is therefore necessary to include baseline and periodic cardiac examinations in the management protocol for children with HIV infection to ensure optimal care and improved quality of life.

PC15

Echocardiographic findings in newborns and postneonatal infants undergoing preoperative evaluation for surgically correctable congenital malformations

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Background: Congenital cardiac malformations could co -exist with surgically correctable non-cardiac congenital structural abnormalities. The occurrence of the two conditions portends increased anaesthetic risk and perioperative complications. Early recognition could favourably alter the post-operative outcome.
Objectives: To describe the prevalence and pattern of congenital heart defects in young infants with non-cardiac congenital malformations preparing for surgical interventions.
Methods: Consecutive newborns and postneonatal infants with congenital malformations being prepared for surgery were sent to the paediatric cardiology unit of University of Abuja Teaching Hospital for echocardiography from August 2013 through July 2015. A Vivid e portable echo machine was used to evaluate the heart using a 6S transducer.
Results: Of the 34 newborns and postneonatal infants with congenital non-cardiac malformations, 21(61.8%) were males while 14 (41.2%) were females, giving a M:F ratio of 1.5:1. Gastrointestinal malformations constituted 50% of cases. Omphalocoele major and biliary atresias were the most common malformations seen. Six babies had completely normal heart, 4 had isolated patent foramen ovale, thus giving a total of 10 babies with

structurally normal hearts. Of the 24 babies with structural heart defects, 14 (58.3%) had single defect while 10 (41.7%) had two or more defects consisting of 21 acyanotic and 3 cyanotic defects, namely truncus arteriosus, double outlet right ventricle and hemianomalous pulmonary venous return. A total of 34 cardiac defects were seen. Thirty-one (91.2%) of the heart defects were simple while 3 (8.8%) were complex heart defects. Atrial septal defect (9, 37.5%), patent ductus arteriosus (9, 37.5%) and ventricular septal defect (6, 25.0%) were the commonest simple heart defects.
Conclusions: Congenital structural abnormalities are common indications for surgical interventions in young infants. Recognition of co-existing structural cardiac abnormalities is essential in preoperative planning and may be a useful guide in averting untoward anaesthetic accident.

PC16

Left ventricular non-compaction cardiomyopathy in HIV infected Nigerian child

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Introduction: Left ventricular non-compaction cardiomyopathy (LVNC) is a rare congenital heart condition representing an arrest in the normal process of myocardial compaction, resulting in a spongy myocardium, persistence of prominent ventricular trabeculations and deep intrartrabecular recesses. Clinical presentations vary from asymptomatic, to arrhythmias, thromboembolism, heart failure, and sudden death.
We report a case of LVNC in an HIV-positive girl whose initial manifestation was acute stroke. To our knowledge, this is the first reported case of LVNC in HIV –infected paediatric patient in Africa.
Case Report: A 10-year old HIV-infected girl who has been on anti-retroviral therapy for 8 years, presented with 4-day history of deviation of the mouth to the left, inability to use right limbs and loss of speech. Examination revealed left facial nerve palsy, right hemiplegia, dyspnoea, tachypnoea and displaced apex beat.
Imaging showed globular heart, pulmonary plethora and cerebral infarct. ECG revealed left ventricular hypertrophy with strain pattern, left atrial enlargement and repolarisation abnormality. Echocardiographic findings included grossly dilated left ventricle with spongy-to-compact ratio of 4.5, intratrabecular recesses and severe left ventricular dysfunction.
A diagnosis of stroke likely secondary to thromboembolism from LVNC in WHO clinical stage 2 HIV patient was made. She was successfully managed with antifailure regimen, anticoagulant and physiotherapy.
Discussion: The true prevalence of LVNC is unknown. Diagnosis of LVNC was based on the Jenni criteria. Our patient, prior to this hospitalization had been asymptomatic for LVNC disease.
Conclusion: Myocardial non-compaction can present with dramatic events, thus the need for routine screening of HIV infected children for heart diseases.

PC17

Blood pressure measurements in primary school pupils of Ethiope West Local Government Area of Delta State using the dinamap Oscillometer

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Background: Adult Hypertensive disorders and resultant cardiovascular morbidity is on the increase. Childhood blood pressure is the strongest predictor of adult blood pressure. It is now understood that elevated BP in children may represent the onset of essential hypertension in adults. Thus the potential to prevent adult hypertension starting in childhood depends on the knowledge of the determinants of childhood blood pressure. Measurements with the automated oscillometric device correlate strongly with intra-arterial readings.
Objective: To assess the oscillometric Blood Pressure (BP) values in apparently healthy primary school pupils of Ethiope West LGA (EWLGA) so as to to determine the prevalence of hypertension and pre hypertension.
Methods: Following due ethical process, the Dinamap oscillometric device was utilised to assess blood pressure (BP) of a cross section of rural primary school pupils aged 5 years to 12 years in Ethiope West Local Government Area (EWLGA) of Delta State. BP was measured with the Dinamap monitor. Statistical analysis was with the SPSS version 16, year 2007.
Results: A total of 1200 pupils 632 (52.7%) females and 568 (47.3%) males were recruited; 321(26.8%) pupils from private schools and 879 (73.2%) from public.
The prevalence of hypertension was 6.7%. Children from the public schools (7.2%) had higher BP than those from the private schools (5.3%) P=0.035.
The prevalence of pre-hypertension was 6%. Children in private schools had a significantly higher pre-hypertensive prevalence of 7.2% than those in public schools 4.8%
Conclusion and Recommendation: Pattern of blood pressure changes in the children of this community has shown a higher trend in values for the ages and a high prevalence of hypertension and prehypertension. Therefore it is recommended that BP of children in this age cohort in EWLGA be measured using the Dinamap XL device and the developed charts referred to for easy interpretation and detection of elevated BP at every contact with a health facility.
Keywords: Blood Pressure measurements, Hypertension, Prehypertension, Children

PC18

The Adolescent with Cardiac Disease in Zaria

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Introduction: The outcome in adolescents (aged 10-19years) accessing healthcare for cardiac disease is largely undocumented. The benefits of global techno-

logical advancements in cardiac care should accrue to this paediatric subset who are link to our future. This study evaluates outcome of adolescents with chronic cardiac disease in Zaria.
Methods: Adolescents attending paediatric cardiac clinic of ABUTH from Nov - Oct 2015 were studied. Demographic details including age at diagnosis, frequency of visits and disease outcome were obtained. Socioeconomic milieu was profiled in relation to health outcome and Health Related Quality of Life (HRQOL) was assessed.
Results: Fifty two adolescents(41 early, 8 middle and 3 late) comprising 18% of all cardiac patients were enrolled. There were 23 with congenital structural cardiac disease (diagnosed since infancy), 26 with rheumatic heart valvular disease and 3 TB pericarditis. Eighty eight percent (46/52) were from low/ medium socioeconomic families. Irregular clinic attendance usually unaccompanied by parents was recorded in 38%. Only 7 patients had had surgery and self-reported (HRQOL) was mostly impaired in middle and late adolescents. Ten (19%)were lost to follow-up.
Discussion: Half of the respondents majorly followed up since infancy had not had definitive surgery in comparison to prenatal diagnosis and early surgical repair practiced in developed countries. Access to surgical repair of acquired disease is almost nonexistent so there is impaired quality of life attributable mainly to chronic cardiac failure.
Conclusion: The adolescent with cardiac disease ismedically underserved and in undesirable quality of life. Renewed commitment to cardiac healthcare for this silent yet vital group is strongly advocated.

PD1

Clinical spectrum of dermatophytosis in HIV seronegative and seropositive Children in Abuja, Nigeria

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Introduction: Human immunodeficiency virus (HIV) predisposes the infected to infections including fungal skin infections especially dermatophytosis. Though dermatophytosis may appear trivial, in the immune deficient, there may be risk of atypical, extensive and invasive infection.
Aim: This study was aimed at finding out the prevalence, clinical pattern, and the association if any between the prevalence of dermatophytosis and the immunological or clinical stages in HIV seropositive children 2months to 15years at the National Hospital Abuja, Nigeria.
Methodology: This was an observational cross-sectional study of 206 HIV positive children who met the study criteria (subjects) and 206 HIV-negative children matched for age and sex (controls). Sociodemographic data and clinical staging of HIV disease were obtained. Skin examinations were carried out, clinical photographs and blood samples for full blood count and CD4 were obtained. Body Surface Area affected by the infection was estimated using the 'Rule of nine'. Data was analysed using SPSS version 21.
Results: There was no statistically significant difference in prevalence of dermatophytosis in the subjects (13.1%) and controls (10.2%), p = 0.44. Highest prevalence rate was in the 5 – <10 years age range in both groups. Tinea capitis, tinea faciei, tinea corporis, tinea pedis and tinea unguium were seen in the subjects. The latter two were absent in the control group. Multiple sites of infection and atypical lesions were encountered among the subjects. There was no significant difference in the sizes of lesions in both groups. There was no statistically significant relationship between prevalence rate and degree of immunosuppression.
Conclusion: HIV infection in Nigerian children is associated with atypical and multiple distributions of dermatophytic infections. The presence of tinea pedis or tinea unguium may be pointers to possible HIV infection

PD2

Giant congenital melanocytic nevus in a 3 week old Child

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Background: Giant congenital melanocytic nevus is a rare condition with incidence of about 1:50,000 births. It increases risk of neurocutaneous melanosis and transformation into malignant melanoma. Identification and follow up of affected children is therefore important.
Case report: A 3 week old male neonate presented with high grade fever and excessive crying. Examination revealed a febrile, irritable child with a bath suit distribution of hyperpigmentation, multiple noodles, a large tied off foul smelling necrotic noodle and satellite lesions. He was managed for Sepsis in a child with giant congenital melanocytic nevus.
Conclusion: The psychological impact of Giant Congenital Nevus on the family of the affected child and its health implication to the child makes it important. Management of this condition is a huge challenge especially in the developing countries where out of pocket health financing almost precludes quality healthcare for the low socioeconomic class without health insurance.

PD3

Linear and whorled nevoid hypermelanosis in a Nigerian Child: a case report and literature review

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Introduction: Linear and whorled nevoid hypermelano-

sis (LWNH) is a rare skin condition characterized by linear streaks and swirls of macular hyperpigmentation along the lines of Blaschko. The disease may occasionally have associated extracutaneous manifestations. The exact pathogenesis is unknown and no satisfactory treatment modalities for LWNH are currently available. There are few case reports of the disease in literature worldwide and none has been previously reported in Nigeria. We are reporting one such rare case of linear and whorled nevoid hypermelanosis in a 9 month old Nigerian child.
Case report: A 9 month old female who presented with abnormal dark skin pigmentation noticed at birth suggestive of LWNH with extracutaneous presentation including microcephaly, turricephaly, anisocoria, nystagmus and delayed developmental milestones. This shows the existence of this rare disease in Nigeria.
Conclusion: Linear and whorled nevoid hypermelanosis though uncommon, is associated with significant morbidity especially among those with extracutaneous lesions. No effective treatment is available for this disorder.
Key words: Linear, whorled, nevoid, hypermelanosis, Nigerian

PD4

Prevalence and Psychosocial Impact of Tinea Capitis among Primary School Children in Emohua, Rivers State, Nigeria

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Background: Tinea Capitis also known as ring worm of the scalp is the most common fungal infection. It is highly contagious and poses a public health challenge in developing countries
Objective: To determine the prevalence and psychosocial Impact of tinea capitis among primary school children in Emohua, Rivers State.
Study Design: Descriptive cross-sectional study.
Setting: School based survey using primary school children in Emohua, Rivers State.
Method: Multi-stage sampling technique was used to recruit pupils aged 6-12 years from 9 primary schools in two school districts. A total of 1,289 pupils consisting of 698 (54.2%) males and 591 (45.8%) females were studied. A structured pre-tested questionnaire was used to obtain relevant information. Diagnosis of tinea capitis was made clinically and scrapings of the hair and scalp obtained for microscopy.
Results: Tinea capitis was clinically diagnosed in 184 pupils, giving a prevalence of 14.3% with a male to female ratio of 2.5:1. Of 184 clinically diagnosed cases, mycological examination of hair and scalp scrapings gave positive results in 127 (69.0%) pupils. Tinea capitis was significantly higher among males than females ($p<0.001$). The infection was not significantly associated with overcrowding ($p=0.997$), poor personal hygiene ($p=0.998$), animal contact ($p=0.284$) and low socioeconomic condition ($p=0.523$). The psychosocial impact of tinea capitis was high at 58.2%. The impact was severe in 3.3%, moderate in 23.9%, mild in 31.0% and in 41.8%, there was no impact.
Conclusion: The prevalence of tinea capitis infection in primary school children is high, with a higher prevalence in males and a remarkable psychosocial impact on majority of infected children.
Key words: Tinea capitis, psychosocial impact.

PE 1

Paediatric endocrine disorders in University of Port Harcourt Teaching Hospital.

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Background: Endocrine disorders constitute a major health problem globally. In developing countries, low awareness and diagnostic challenges coupled with the overshadowing effect of the burden of infectious diseases and malnutrition.
Objectives: To describe the pattern of various endocrine disorders seen in children and adolescents in Port Harcourt.
Methods: A retrospective review of all endocrine cases seen at the Paediatric endocrinology unit of the University of Port Harcourt Teaching Hospital between January 2013 and March 2015 was done.
Results: A total of 122 patients presented with endocrine disorders over the 2year study period. There were 61 (50.0%) female and 54(44.3%) males. Seven (5.7%) had genital ambiguity.The ages of patients ranged from 12days to 17years with a mean age of 6.9 ± 5.1. The commonest endocrine disorders were thyroid disorders, diabetes mellitus (DM), pubertal disorders in 23(18.9%), 21(17.2%) and 20 (16.4%) respectively. Twenty two (18.0%) of the patients were obese. Other disorders include rickets in 14(11.5%) and disorders of sex development in 10(8.2%), of these children with disorders of sex development, 7(70%) had ambiguous genitalia. Type 1 DM remained the commonest type of DM. Most of the patients were of the middle social class (social class III). Challenges included high cost of investigations and drugs, high rate of loss to follow up.
Conclusion: Thyroid disorders, obesity, diabetes mellitus, disorders of puberty and rickets were the leading endocrine disorders in our review. High cost of investigations and loss to follow up were major challenges to care.
Keywords: Endocrine disorders, Children, Adolescents, Port Harcourt.

PE2

Neonatal diabetes treated with oral sulphonyuria- a case report

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Background/Introduction: Diabetes mellitus (DM) is a chronic endocrine disorder characterized by hyperglycemia due to absolute or relative insulin deficiency. Neonatal diabetes (NDM) is when diagnosis of DM is made within six months of life and it is classified as monogenic and caused by specific gene mutations. NDM is said to occur in 1 in 100,000-500,000 live birth and there is scanty report of it among Nigerian Children.
Aims/Objectives: To report a case of NDM managed successfully with oral hypoglycaemic agent
Methods: Case file of a child managed for neonatal diabetes was reviewed
Results: AF presented at the age of 8 week with fever, vomiting (2 episodes), fast breathing and loss of consciousness. He was noticed to have been urinating frequently for 2 weeks before presentation as evidenced by increased frequency of diaper change. There was no history of diarrhoea nor family history of diabetes. He presented severely dehydrated and in respiratory distress. Initial random blood glucose was 24mmol/l and HbA1c of 12.2%. Urine analysis showed glycosuria and ketonuria. He was resuscitated with intravenous fluid and Insulin. A trial of glibenclamide was commenced out of necessity on the 4th day of admission and insulin was discontinued. Blood glucose has remained well controlled and HbA1c ranges between 6.5-7.5%. He is presently 11 months old and his growth and development has been optimal. Plan is presently underway to do a genetic testing.
Conclusion & Recommendations: Neonatal diabetes may not be uncommon in our environment. Clinicians should have a high index of suspicion especially in children with severe dehydration without evidence of significant gastrointestinal fluid loss.

PE3

Isolated wrist swelling due to Vitamin D deficiency in a Nigerian Infant: case report and identification of risk factors

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Introduction: Vitamin D deficiency rickets has multiple aetiologies in infants in the tropics and regions of abundant sunlight. The reduced intake of vitamin D from breast milk in mothers with vitamin D deficiency and absence of Vitamin D supplementation are common causes. Reports have shown vitamin D deficiency a rare underlying cause of rickets in Nigerian children a region with abundant sunlight.
Case Report: Here is a rare presentation of progressive painless wrist swelling in an 11months old infant with radiologic features and biochemical deficiency of Vitamin D in mother infant pair and marked reduction in sunlight exposure. Mother manifested features of possible osteomalacia in pregnancy, did not receive vitamin D supplements during pregnancy and after delivery, she also received little or no sunlight due to change in lifestyle as she stayed indoors with baby.
Conclusion: This report therefore reveals risks factors for vitamin D deficiency in a region with abundant sunlight.
Keywords: Vitamin D, Rickets, Risk factors

PE4

Clinical and Demographic Profile of Children and Adolescents with Type 1 Diabetes Mellitus at the Lagos University Teaching Hospital (LUTH), Lagos, Nigeria: a 10-year review

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Objectives: To describe the demographic and clinical profile of the children and adolescents with Type 1 DM attending the Paediatric Endocrinology Clinic of LUTH over a 10-year period.
Methods: Data extracted from case records of patients attending the clinic from September 2005 to October 2015were collated on an excel spreadsheet and analysed using SPSS version 20. Ethical approval was obtained.
Results: Sixty four patients(31 males and 33 females) with Type 1 DM were seen. They constituted 26.3% of endocrine cases. The median age was 15 (range, 2-27) years. The median age at presentation was 10.5(range, 1.6-16) years. More than half of the patients (54.7%) presented for the first time with diabetic ketoacidosis (DKA) while the rest presented with varying combinations of classical symptoms of polyuria, polydipsia and weight loss. Median HbA1C at presentation was 12 (range, 9.8-14)%.Major acute metabolic complications include hypoglycaemic episodes and DKA. Further analysis of 20 patients who have had DM for more than 5years revealed microalbuminuria in 20% and diabetic neuropathy in 5%.Hyperlipidaemia was seen in 18% of these patients. Hypertension (either combined systolic and diastolic, or isolated systolic and diastolic) was recorded in 45% of these patients. Fourteen patients aged above 18 years are being co-managed with adult endocrinologists through a transitional clinic.
Conclusions: Type 1DM constitutes a major proportion of the paediatric endocrine disorders encountered. Majority of patients present with DKA at diagnosis. Hence nationwide health education of the population and training of health workers is advocated for early recognition of symptoms.

PE 5

Penile dimensions in newborns from Port Harcourt, South South Nigeria

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Background/Introduction: There are documented racial and geographic variations in penile dimensions and only few data exists on the subject in Nigeria.
Aims/Objectives: The study set out to document the stretched penile length and penile diameter of male newborns in Port Harcourt, South South Nigeria and compare with two earlier studies from other regions of Nigeria.
Methods: Four hundred and eleven consecutively delivered male newborns were recruited. SPL and PD were measured using standard methods and a digital metal calliper. The mean values were determined and compared with other anthropologic parameters and also with the other earlier studies.
Results: The mean SPL from this study was 3.17±0.5cm and mean PD was 1.07±0.17cm. There was no significant correlation with the any of the anthropologic parameters but the PD showed positive correlation with the Birth weight, birth length and head circumference. The mean SPL was however smaller than the other two earlier studies. The 3rd and 10th percentile for the SPL was 2.3cm and 2.5cm.
Conclusion & Recommendations: It is concluded that there may exists a regional difference in penile dimensions across the southern parts of Nigeria. A penile length of less than 2.3cm should be taken as representing micropenis in the region.

PGN 1

Knowledge and practice of breast feeding among mothers seen at the University of Port Harcourt Teaching Hospital

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Background: Nutritional status of children is determined by two important factors which are exclusive breastfeeding and introduction of complementary feeds. Exclusive breastfeeding rate in Nigeria has remained low (17%) and only 35% of children aged 20-23 months in Nigeria are still breastfeeding. The aim of this study was to determine the knowledge and breastfeeding practices of mothers who brought their children to the paediatric department of University of Port Harcourt Teaching Hospital (UPTH)
Methods: A Cross-sectional hospital-based study. Self-administered structured questionnaires were used to retrieve information from mothers who brought their children to the Children Outpatient Clinic and children's wards of the department of Paediatrics from January 2012 to December 2013. Data were entered in to a microcomputer and analyzed using SPSS version 20.0
Results: Three hundred respondents were studied. Age range 18 – 55 years, mean age of 31.59 $\pm$ 6.6 years. Breastfeeding was initiated within 30 minutes of delivery in 57'7% of mothers, 8.3% and 6% gave plain water and glucose water respectively on the first day of life. Only 11.9% of mother's breastfeed exclusively for the first six months. Complementary feeds were started at 1 month by 3.3% of mothers, while only 4% of mothers breastfed their children till age two years.
Conclusion: Breast feeding practices are still poor in our environment and need to be strength end through education.

PGN 2

Alagille syndrome: a case report

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Background: Alagille syndrome (AGS) is a rare cause of prolonged jaundice and a high index of suspicion is required for diagnosis. It has an autosomal dominant inheritance pattern, expressed variably. It contributes to the incidence of neonatal jaundice and cholestasis in older children, with an incidence of 1:100,000 live births and the 4th most frequently transplanted disease.[3]
Case Report: T.O, Female 11 years, presented with recurrent yellowness of the eyes since birth, progressive loss of sight, recurrent body swelling, reversal of sleep and irrational talk. She had pale stools, dark urine, and body itching, lately prolonged bleeding with epistaxis. Her pregnancy was associated with polyhydramnios in the 3rd trimester, birth weight 2.4kg, fully immunized. She had delayed walking and tooth eruption. She is second of four children in a monogamous non-consanguineous marriage.
She was small for age, deeply icteric with perculiar facies. She had thin long limbs, broad wrist, rachitic rosary, genu valgum, pedal oedema. Echocardiograph findings included 1 and 2 heart sounds with aortic and pulmonary stenosis. Abdomen was tender with moderate ascites. Liver functions were deranged. Brain MRI showed multiple chronic infarcts, chest radiograph multiple butterfly vertebrae. Genetic evaluation revealed no mutation in JAG 1 gene, karyotype 46XX. Liver biopsy was not done. A diagnosis of Allagille syndrome was made. She also had hepatic failure with encephalopathy.
Conclusion: Allagille syndrome should be considered early in the evaluation of older children with persistent cholestatic jaundice.
Key words: Allagille syndrome, cholestatic jaundice

PGN 3

Diarrhoeal deaths in under-five Nigerians: clinical characteristics of hospitalized children

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Introduction: It is estimated that about 800, 000 under-fives die annually from diarrhoea disease worldwide. Some of the deaths occur in hospitalized children. The clinical characteristics of these children may be related to the fatal outcome.
Objective: To describe the clinical characteristics of hospitalized under-fives that die from diarrhoea disease.
Method: This was a retrospective study of under-five diarrhoeal deaths in the University of Calabar Teaching Hospital recorded between 2010 and 2015. Patients' case notes were retrieved and information on their bio-data, nutritional status, immunization status, clinical features, investigations, treatment and duration of admission were extracted. Data was entered into Microsoft Excel and analyzed using the same package.
Result: A total of 98 diarrhoeal deaths occurred within the period under review. The patients were of equal sex distribution with 88 (89.8%) aged 0 -2 years. Forty seven (48.0%) of them were severely malnourished. The main symptoms associated with diarrhoea were fever 85 (86.7%), vomiting 53 (54.1%), cough 37 (37.8%) and fast breathing 26 (26.5%) while dehydration 92 (93.8%), pallor 58 (59.2%), hepatomegaly 50 (51.0%) and dyspnea 43 (43.9%) were the main signs. Forty eight children (49.0%) died in the first day of admission. The association between time-to-death and nutritional status of the children was statistically significant (χ^2 = 23.6; P = 0.0001).
Conclusion: Most under-five diarrhoeal deaths occur in children less than two years of age and are associated with febrile illnesses. Severe malnutrition is an underlying factor to these deaths and is associated with time-to-death in hospitalized children.

PGN4

Micronutrients status of stunted Malnourished Pre-school age children at Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria

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Background: Stunting is a major problem worldwide affecting more than 178 million children under five. 32.5% of children in developing countries are stunted.While the aetiology of stunting is complex, inadequate nutrition and infection are among factors that are thought to play major roles in reducing a child's height-for-age. Several micronutrients are essential for adequate growth of children.
Objective: To determine the status of micronutrients among stunted malnourished pre-school age children seen at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto.
Methodology: Study was descriptive and cross-sectional, carried out at the Paediatric department of UDUTH, Sokoto. Subjects were 275 malnourished children aged 6-60 months. Nutritional status and stunting was assessed using the WHO classification of malnutrition. Serum vitamin A and zinc were analysed using Basseys colorimetric method and Atomic Absorption Spectrophotometric method respectively.
Result: The mean age of the malnourished children was 26.2±14.6 months compared with 28.2±17.0 months in the controls (p= 0.157). 66(24.0%) malnourished children were severely stunted, 52(18.9%) had moderate stunting, 63.0(22.9%) had mild stunting, while only 94.0 (34.2%) had normal stature. The mean serum levels of vitamin A and zinc of malnourished children were 23.4±13.2µg/dl and 13.5±3.3µmol/L, which were significantly lower than the controls' 54.1±22.8µg/dl and 15.8±1.9µmol/L respectively (p=<0.05). The mean serum vitamin A and zinc levels showed a decreasing trend with increasing severity of stunting (p=0.0001).
Conclusion: Children with severe stunting had the significantly lower mean serum vitamin A and zinc levels.
Keywords: Micronutrients, Stunted malnourished pre-school children, Sokoto

PGN5

Vitamin A and zinc levels of malnourished preschool age children at Usmanu Danfodiyo University Teaching Hospital, Sokoto, Northwestern Nigeria

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Background: Micronutrient deficiencies constitute a devastating form of malnutrition whose consequences can be crippling or fatal. In developing countries where malnutrition is prevalent, children usually have multiple micronutrient deficiencies. There is increasing evidence that zinc and vitamin A interact in several ways; Zinc is a component of retinol binding protein (RBP), a protein necessary for transporting vitamin A in the blood.
Objective: To compare mean serum levels of vitamin A and zinc between preschool age children with malnutrition and age matched well-nourished children at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto.
Methodology: Study was descriptive and cross-sectional, carried out at the Paediatric department of UDUTH, Sokoto. It was conducted among 275 malnourished children aged 6 -60months and age matched well-nourished controls. 5mls of venous blood was taken for serum vitamin A and zinc analysis.
Result: The mean serum levels of vitamin A and zinc in children with malnutrition were 23.4±13.2µg/dl and

13.5±3.3µmol/L, which were significantly lower when compared to those of the controls 54.1±22.8µg/dl and 15.8±1.9µmol/L respectively (p=<0.05). Mean serum vitamin A and zinc levels were significantly low across all age groups of study subjects compared to age matched controls (p=<0.05). Similarly, the lowest mean serum zinc level was observed among children with oedematous malnutrition (12.8±3.0µmol/L) when compared to that of the controls (15.8±1.9µmol/L). The difference was significant (p=0.0001).
Conclusion: Children with malnutrition had significantly lower mean serum vitamin A and zinc levels
Key words: Vitamin A and zinc levels, malnourished preschool children, Sokoto

PGN6
Influence of maternal and child characteristics on breastfeeding techniques

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Background: Optimal breastfeeding is the sole way of nurturing the human infant to achieve both mental and physical potential. A number of maternal and child factors are associated with breastfeeding practices, consequently the knowledge of these characteristics may be used to ensure best breastfeeding practices
Objective: Describe characteristics of breastfeeding mothers, breastfed children and assess the correctness of breastfeeding techniques.
Materials and Methods: Using a pretested questionnaire in a cross sectional study, 500 mother-child diad were interviewed and observed for correct techniques during breastfeeding session. Information collected was entered into and analyzed using software SPSS 21 version.
Results: Of the 500 babies, 14(2.8%) were less than one month old, 294(58.8%) aged 1-5 months, 136(27.2%)6-11 months and 56(11.2%) above 11 months. Of these, 55.2% are male and 44.8% females with M:F ratio of 1.2:1. Mothers age ranged from 16- 45 years. Mothers with university education were 86(17.2%), 228(45.6%) had secondary and 120(24%) had primary education or less. Maternal occupations ranged from housewives to top professionals. Primiparas formed 32%(160), women with 2-3 children 40.4%(202) and 4 or more children 23.6%(118).
Correct maternal positioning was associated with mothers that practiced Exclusive Breastfeeding (p-0.001), had tertiary education (p-0.001), attended Antenatal clinic (ANC) 4 times and above (p-0.001).Correct child position was associated with maternal university education (p-0.005), and child ranked 2nd-3rd (0.002). Appropriate attachment was associated with women with university education, (p-0.001), older than 40 years (0.020), babies 6 month and above (p-0.001).
Conclusions: Younger aged, less educated and primipara mothers need more support and guidance for appropriate techniques to breastfeed. It is recommended that mothers should be taught and shown correct breastfeeding techniques.

PGN7
Comparison of post delivery Hospital practices that support breastfeeding among centers of delivery in Jos

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*Background :*The goal of establishing the Baby Friendly Hospital initiative (BFHI) was to promote, protect and support breastfeeding for the optimal mental and physical growth of infants. Bearing in mind the overwhelming effect optimal breastfeeding practice has, it is pertinent to review the practices of BFHI hospitals.
Objectives: To assess post delivery breastfeeding supportive practices and Exclusive Breastfeeding rates (EBF) among BFHI designated and Non-BFHI centers of delivery in Jos
Methodology: A total of 294 mother-child pairs that delivered in tertiary and secondary BFHI centers along with non-BFHI private hospitals were studied. Mothers were questioned on health care workers actions toward them that support breastfeeding after delivery. Information collected was analyzed using software SPSS version 21.
Result: Of the 294 mothers 112(38.4%) delivered in the tertiary centre, 66(22.4%) secondary centres and 116 (39.2%) private hospitals. Overall EBF rate was 42.4%, EBF rate was significantly higher in the tertiary centre (56.1%) and the least in Non BFHI hospitals (37.3%) (p -0.015) Prelacteal feeds were given in 19.7% of all babies with private hospital having highest proportion (24.1%).
Only 23.9% of mothers started breastfeeding within 30 minutes of delivery, the least (15.5%) in the tertiary hospital (p-0.002). 33.6% were assisted to breastfeed by health workers and non-medical personnel (57vs 41). Poorer breastfeeding techniques was significantly associated with delivery at secondary BFHI centers
Conclusion: BFHI hospitals have lax supportive practices for Breastfeeding with concomitant poor EBF rates. Health workers should be retrained to educate and initiate breastfeeding in mothers to increase EBF rates and improve the health of infants.

PGN8
The Complimentary Feeding Practices and Nutritional Status among Under-five Children in a Community in Sokoto, North-Western Nigeria

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Background: Complimentary feeding is the corner stone of child's nutrition. Most malnourished children had their predicament originating from the period of transition breastfeeding to family diet.
Objectives: To determine the complimentary feeding practices and nutritional status of under-5 in Gwiwa

community.
Methods: A cross-sectional study carried out in Gwiwa community, Wammakko LGA, Sokoto state between May and August 2015. One hundred and forty-six Mothers with children aged 6 – 36 months were interviewed using structured interviewer questionnaire and the nutritional status using WHO classification of malnutrition. Data was analyzed using SPSS version 20.0. A p-value ≤0.05 was taken as significant
Results: Sixty-eight (45.9%) of the respondents were aged 15 – 24years and 81(54.7%) were of low socio-economic class. Twenty-six(17.6%) of the children were exclusively breast fed for 6months. Sixty-nine (46.62%) of the children studied commenced complimentary feeding at 4 – 6month of age with the mean age of 5.5±2.5months. There were 90 males and 58 females. Sixty-nine (46.6%) used plain pap with 41.2% fed more than 3 times per day. The mean age of cessation of breast feeding was 17.7 ±3.5 months. Sixty-five (43.9%), 53(35.8%) and 33(22.3%) of the children were underweight, wasted and stunted respectively.
Conclusion: The complementary feeding practices are suboptimal in this community and might explain the poor nutritional status of the under-5 in this community. Efforts should be geared towards optimal complementary feeding practices in our community.
Key words: Complementary, Feeding, Practice, Nutritional, Status, Under-5.

PGN 9

The Effect of Exclusive Breast Feeding Practices on Morbidity among Under-five Children in a Semi–Urban Community in Sokoto, North-Western Nigeria

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Background: An important component of child survival strategy is breastfeeding. It protects against infections especially diarrhoeal and respiratory diseases.
Objectives: To determine the incidence of exclusive breast feeding and its effect on under-5 morbidity in Gwiwa community.
Methods: A cross-sectional study carried out in Gwiwa community, Wammakko LGA, Sokoto state between May and August 2015. One hundred and eighty six Mothers with children aged 6 – 59months were interviewed using structured interviewer questionnaire. Data was analyzed using SPSS version 20.0.
Results: Seventy-three (39.2%) of the respondents were aged 15 – 24 years and majority (54.3%) is of low socio-economic class. Thirty-three (17.7%) of the children were exclusively breast fed for 6 months. There was significant difference in the rate of exclusive breast feeding among different socio-economic classes. One (3.5%) and 16 (11.3%) hospitalization were recorded among exclusively and non-exclusively breast fed children respectively (p= 0.4). Eighteen (54.5%) and 23 (69.7%) of the exclusively breastfed children had diarrhoea and ARI respectively as compared to 115 (75.2%) and 113 (73.9%) with diarrhoea (p= 0.03) and ARI (p= 0.04) respectively among non-exclusively breastfed children.
Conclusion: The incidence rate of exclusive breast feeding is low in our community and might have impacted negatively on under-5 morbidity in the community. Efforts should be geared towards improving exclusive breast feeding campaign in our community.
Key words: Exclusive, Breastfeeding, Childhood, Morbidity.

PGN 10

Infant and young child feeding practices in Okrika Town, Rivers State, Nigeria

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Background: Optimal infant nutrition in the early years of life promotes appropriate growth and development of the under five child in addition to reducing childhood morbidity and mortality. In Nigeria, only 30% of children were fed appropriately according to the WHO infant and young child feeding policy.
Objectives : The objectives were to determine the prevalence of breastfeeding, exclusive breastfeeding among under-fives in Okrika Town, the duration of breastfeeding and the age at commencement of complementary feeding.
Materials and Method: A cross sectional descriptive study using was carried out in 2012. Using a multistage random sampling technique, 410 under-fives in 410 households in Okrika Town were selected to participate in the study. A questionnaire was used to collect data on feeding practices from the caregivers of the under-fives.
Results: The 410 children studied were aged 0-59 months, comprised of 127 (52.9%) males and 193 (47.1%) females. Of these, 408 (99.5%) were breastfed, 154 (37.7%) commenced breastfeeding within 30 minutes of delivery and 65 (15.9%) received prelacteal feeds. Seventeen (45.9%) children aged 0-6 months were exclusively breastfed and 173 (46.3%) of those aged 6-59 months were exclusively breastfed for 6 months. The mean duration of breastfeeding was 13.9 $\pm$ 4.06 months. Complementary foods were commenced between 1- 18 (mean 5.9$\pm$ 23.) months with 32% starting at age < 6 months.
Conclusion: There is need to improve on the infant and young child feeding practices of under- fives in Okrika Town.
Keywords: Under-fives, breastfeeding, prelacteal feeds, complementary feeding.

PGN 11

Prevalence of malnutrition among under-fives in Okrika Town, Rivers State

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Background: Malnutrition is a public health problem in developing countries and an underlying factor in one-third of the 6.6 million global under-five deaths recorded in 2012. In 2011, 35.8% and 10% of Nigerian under-fives were stunted and wasted respectively.
Objective: To determine the prevalence of wasting, stunting, underweight and overweight malnutrition among under-fives in Okrika Town.
Material and methods: A cross sectional descriptive study was undertaken between April and June 2012. A multistage random sampling was used to recruit 410 under-fives from 410 households in Okrika Town. A proforma was used to collect data from the caregivers of selected children, who were later weighed and their height measured. The WAZ, HAZ and WHZ anthropometric indices were calculated using WHO Anthro3.2 and children with those with WAZ, HAZ and WHZ < -2SD were classified as underweight, stunted and wasted respectively and overweight if WHZ was > +2SD.
Result: The 410 children studied were aged 0-59 months, comprised of 127 (52.9%) males and 193 (47.1%) females. Forty three (10.5%) children were underweight, 56 (13.6%) stunted, 36 (8.8%) wasted and 6 (1.5%) overweight. Stunting was most prevalent in those aged 48-59 months, while underweight and wasting were most prevalent in those aged 36-47 months and 12-23 months respectively. There were no statistically significant differences in the prevalence of underweight, stunting and wasting among the males and female under -fives, ($p > 0.05$).
Conclusion: Stunting was the most prevalent and overweight least prevalent forms of malnutrition among under-fives in Okrika Town.
Keywords: Malnutrition, under-fives, underweight, overweight.

PGN12

Recurrent abdominal pain and vomiting in the older child: It could be intestinal Malrotation

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Introduction: Malrotation of the gut refers to abnormal positioning of the intestine within the peritoneal cavity and this may involve the small intestine or the large intestine. However, most cases of gut malrotation are diagnosed in the first year of life but in minority of cases the patient become symptomatic only in adolescence or adulthood. Presently, there are few reports on malrotation in the older children especially in the sub-Saharan african continent.
Methods: The Clinical records of children above the age of 2 years who presented with recurrent abdominal pain ± vomiting between January 2013 and October 2015 at the Lagos University Teaching Hospital were reviewed. Clinical features, radiological findings and operation findings were documented.
Results: 5 patients with malrotation of the gut were seen during the study period. The mean age was 8.8 years (range: 5-10 years). The commonest complaint was intermittent colicky abdominal pain in 5 (100%), and recurrent vomiting in 9 (100%). Other features included failure to thrive in 2 (40.0%). Preoperative diagnosis was possible in 3 patients, with the use of Abdominal computerized tomography scan. Operative findings included obstructing bands of Ladd and volvulus with situs inversus. Symptoms were relieved satisfactorily and quickly with surgical intervention.
Conclusion: There is a need for a high index of suspicion for intestinal malrotation in children who present with a prolonged history of recurrent abdominal and vomiting irrespective of the age. Imaging plays a significant role in the diagnosis of the condition. Prompt surgical management remains the most effective treatment.

PGN13

Paediatric Upper GI endoscopy: A tertiary hospital experience

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Background and Objectives: Paediatric endoscopic procedures are now standard care in the developed world for the management of gastrointestinal disorders. However, in the developing countries, upper gastrointestinal (GI) endoscopy remains an underutilized tool in the care and management of paediatric gastrointestinal disorders. This study was carried out to determine the indications and the spectrum of endoscopic findings in children seen at the Lagos university teaching hospital (LUTH).
Materials and Methods: The indications for paediatric upper GI endoscopy and endoscopic findings in all children ≤ 16 years old referred for the procedure from July 2013 to October 2015 were documented. The endoscopic yield in these children was also determined.
Results: 50 children were referred for upper gastrointestinal endoscopy during the study period. There were 26 boys and 24 girls. The children were aged 3 months to 16 years and the mean age was 7.98(±4.18) years.
The indications for upper endoscopy were recurrent abdominal pain (56.0%), upper GI bleeding(26.0%), recurrent vomiting (10.0%), Heartburn (4.0%), dysphagia

(2.0%) and ingestion of corrosive(2.0%).
Endoscopic findings were as follows: Hiatus hernia (20.0%), Esophageal varices (12.0%), Gastritis (22.0%), Duodenitis (4.0%), Gastric ulcer (6.0%), Gastric polyp and Gastric erosions in (2.0%) of the cases respectively. The overall endoscopic yield was 56.2%.
Conclusion: There is a need to increase the awareness of the role of paediatric endoscopy in diagnosis and treatment of GI disorders in the developing countries. Recurrent abdominal pain still remains a relevant indication for the procedure. The need to develop training programs on paediatric endoscopy and paediatric gastroenterology in general cannot be over emphasized in the developing countries.

PHO 1

Hydroxyurea improves clinical outcomes in sickle cell disease in Nigerian children

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Background: In search for effective therapy for sickle cell disease (SCD), Hydroxyurea (HU) has proved to be useful in reducing the frequency of vaso-occlusive crises, acute chest syndrome and the need for blood transfusion in SCD. There is little documented on the effectiveness of HU use in Nigerian children with SCD.
Aims: To describe the pattern of HU use and its effectiveness in ameliorating symptoms in a cohort of Nigerian children with SCD.
Methods: Children with SCD who were placed on HU were prospectively followed to document clinical and haematological response.
Results: Thirty-eight children (18 boys and 20 girls) with a mean (SD) age of 8.5 (±3.8) years were studied. One had haemoglobin SC disease and the others homozygous SS. Table 1 shows the indications for HU therapy. Follow up lasted 12-62 months; mean (SD) 23.4 ±14.4 months. Thirty five (92.1%) children reported improved well being while 3 (7.9%) reported no change. Indices of improved general being reported were fewer vaso-occlusive crises (89.5%), improved effort tolerance (89.5%), fewer school absenteeism (84.2%),improved school performance (78.9%) and improved appetite (76.3%).Need for blood transfusion fell by 66.6%. There was a significant rise in steady state haematocrit. No major adverse drug reactions was recorded.
Conclusion: HU is beneficial in the management of Nigerian children with SCD. It ameliorates the symptoms of the disease and significantly reduces stroke risk.

PHO 2

Thrombocytopenia-absent radius (TAR) syndrome: a case report

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Background: Thrombocytopenia-absent radius syndrome is a rare congenital disorder with autosomal recessive inheritance pattern. It is a multisystemic syndrome comprising of thrombocytopenia, bilateral absent radii and presence of both thumbs. Incidence is 0.42 in 100,000.
Case: This article describes a two months old boy who was brought to the Emergency Paediatric Unit with history of boils of one week and fever of a day duration. He had a past history of life threatening haemorrhage following circumcision. Essential examination findings included; pallor, multiple furuncles and bilateral hemimelia of the upper limbs. Complete blood count showed low platelets and anaemia while X-ray of the limbs showed no radial bone.
Conclusion: This case report seeks to emphasize the need for clinicians to promptly diagnose this life threatening condition to avoid mortality from its associated complications especially intracranial haemorrhage.

PHO 3

Clinical and laboratory predictors of elevated transcranial doppler velocities in children with sickle cell disease and their counterparts with normal haemoglobin variants

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Background/Introduction: Nigeria has the highest burden of sickle disease (SCD) worldwide and stroke is one of the most devastating complications of the disease. Transcranial Doppler (TCD) velocity is a well established predictor of stroke risk in children with SCD. There are no data on the pattern of TCD in Nigerian children with normal haemoglobin variants. We set out to determine the clinical and laboratory predictors of elevated TCD velocities in a setting of limited resources.
Aims/Objectives: To determine the clinical and laboratory parameters that predict elevated Transcranial Doppler velocities in children with SCD and their counterparts with normal haemoglobin variants.
Methods: A comparative cross-sectional study was carried out. Children with SCD confirmed by haemoglobin electrophoresis were evaluated. Demographic variables, haemoglobin oxygen saturation (SPO2), full blood count and glucose-6-phosphate dehydrogenase were analysed and correlated with TCD velocities.
Results: 120 children with SCD were studied with mean age of 94.8±41.3 months. Significantly higher mean TCD velocities was recorded in the SCD group compared with the HbAA/AS group (p=0.01). Nineteen (15.8%) and 7(5.8%) of children with sickle cell anae-

mia had conditional risk and high risk velocities respectively. None of the children with HbAA/AS had elevated velocities and all haemoglobin SC had standard risk. Haemoglobin SS phenotype, female gender and low haematocrit are predictive of elevated TCD velocities and increased stroke risk in children with SCD.
Conclusion & Recommendations: In setting of limited resources, children with haemoglobin SS phenotype, low steady state haemoglobin, and female gender should be given priority of TCD screening.

PHO4

Wilms tumour: experience at a Tertiary centre in the Niger Delta region of Nigeria

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Background: Wilms tumour (WT) is the commonest primary malignant renal tumour of childhood. Despite enormous progress made in its treatment in high income countries, it is still a difficult cancer to treat in the developing world.
Objectives: To review the clinical profile and outcome of treatment of children with WT at the University of Port Harcourt Teaching Hospital (UPTH), Nigeria.
Methods: All patients with WT admitted into the Paediatric Oncology unit of the UPTH from January 2011 to December 2014 were reviewed. Their clinical profile, management and treatment outcome were analyzed.
Results: Thirty-one children aged 6 months to 13 years were studied, 17(54.8%) males, 14(45.2%) females, M:F=1.2:1. Average duration of symptoms was 10 weeks. All presented with abdominal mass while haematuria (22.6%) and hypertension (19.4%) were less frequent. Twenty-six (83.8%) children had metastatic disease at diagnosis, 4 (13%) had bilateral disease. Nineteen (61.2%) patients received chemotherapy, 12 (38.7%) had surgery and 13(42%) patients defaulted with or without commencement of treatment. Mortality was recorded in 8 (25.8%) cases while 3 (10%) were disease free between 9 and 18 months after completion of treatment.
Conclusion: The rate of completion of treatment of WT as well as survival from this childhood cancer is very poor in our environment. Strengthening of palliative care systems, introduction of free health care for all childhood cancers and institutional measures to ensure completion of therapy are recommended to improve survival.

PHO5

Neuroblastoma stage 4s requiring prolonged course of chemotherapy

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Background: Neuroblastoma stage 4s is a special stage of neuroblastoma seen in children less than 12 months old. It is characterised by a small primary tumour with metastasis limited to the liver, skin and or bone marrow. It accounts for less than 7-10% of all cases of neuroblastoma but has an event free survival of >80% even without treatment. Recent studies have suggested using cytogenetic analysis to prognosticate neuroblastoma stage 4s and not age alone.
D. U presented to us at 10 weeks of age with complaints of progressive abdominal swelling of 4 weeks and whitening of palms and soles of the feet of 2 weeks duration. Pregnancy, delivery and neonatal period were essentially normal. Examination revealed a fairly preserved infant who was pale and had massive hepatomegaly. She had a full blood count, clotting profile, liver function tests, abdominal ultrasound scan and liver biopsy done, details discussed herein. A diagnosis of neuroblastoma was made following tissue histology and staged as 4s.
She commenced chemotherapy with carboplatin etoposide combination. However after 6 courses of chemotherapy the primary tumour which was in the right adrenal gland persisted though it had shrunken to less than half its initial size and she still had residual hepatic metastasis. Her chemotherapy was hence extended.
Conclusion: It is pertinent to closely follow up patients with stage 4s neuroblastoma as age alone does not dictate how the course of this tumour will run.

PHO6

Priapism in Children with Sickle Cell Disease in Port Harcourt, Nigeria

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Background: Priapism is a complication of sickle cell disease (SCD) that if left untreated results in irreversible fibrosis and impotency .The aim of this study was to determine the prevalence, pattern, steady state laboratory parameters of children with priapism and their treatment.
Methods: A retrospective study of children with sickle cell disease who were diagnosed with priapism at the Sickle Cell Clinic and the Emergency Ward of the University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt, Nigeria, from 1st August 2010 to 31st July 2015. Demographic as well as steady-state clinical and laboratory data were extracted from the patients' medical records. Data analysed included age, sex, steady-state packed cell

volume, leucocyte and platelet count; and treatment.
Results: A total of 345 folders of children with SCD (342, HbSS; 3HbSC) were retrieved during the period under review. Five children were found with diagnosis of priapism. The mean age was 8.0±4.6 (range 3-15years).The mean packed cell volume (PCV), white blood cell count (WBC) and platelet counts were 22±2.7; 8±2.9 and 179.4±25.7 respectively. The mean PCV of children with priapism was significantly ($P<0.05$) higher than the control. Fever 4(80%), dehydration 2(40%), rigorous physical exercise 1(20%) and emotional disturbances 1(20%) were associated risks factors. Stuttering pattern was the commonest 3 (60%).Most 4(80%) of them were managed conservatively with irrigation of saline and adrenaline. None of them had exchange blood transfusion. Two (40%) of them had shunt after intumescence of 5 and10 days respectively. Only 1(20%) had recurrence. None had erectile dysfunction.
Conclusion: The prevalence of priapism among patients with SCD is low (1.5%) in Port Harcourt. High steady state haematocrit values were significantly associated with priapism .Fever and dehydrated were the commonest pre-morbid conditions associated with priapism. The treatment options for all types of priapism were initially conservative but surgical therapy must be available when applicable to circumvent erectile dysfunction.

PHO7
Acute Chest Syndrome in Children with Sickle Cell Anaemia: An audit in Port Harcourt, Nigeria

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Background: Acute chest syndrome (ACS) is a leading cause of death from sickle cell disease worldwide accounting for about 25% of all deaths. The aim of this study was to determine the prevalence, clinical features and outcome in Port Harcourt, Nigeria.
Materials and Methods: A retrospective cohort study during a five year period. Records of all patients with sickle cell anaemia (SCA) admitted into the Wards were examined. Those enrolled for the study satisfied two criteria: (i) lower respiratory tract symptoms and (ii) new pulmonary infiltrates on the chest radiograph. Socio demographics, genotype, clinical and laboratory features, treatment given and outcome were obtained. Data were analysed by descriptive statistics. Variables were compared by students 't- test. P value ≤ 0.05 was regarded as significant.
Results: A total of 345 children with sickle cell anaemia were admitted during the 5 year period. Twelve of them had acute chest syndrome (3.5%).Majority 7(58.3%) of them under 5 years. There were more males 8(66.7%) than female 4(33.3) %. The most common clinical features were fever 12(100%), cough 10(83.3%), chest pain 5(41.7%), pulmonary consolidation 12(100 %), and respiratory distress 12 (100%).The admitting diagnosis were bronchopneumonia 6(50%), severe malaria 3 (25%) and vaso-occlusive crises 3(25%).There were very high levels of leukocyte. Received ceftriaxone or ampicillin +gentamicin ±oral erythromycin), paracetamol 12(100 %), ibuprofen 8(66.7 %),tramadol 3 (25.0 %) , pentazocine 8(66.7%) and blood transfusion 9 (75%).The average length of stay was 7 days (range 4–14 days). One patient died (8.3%).
Conclusion: ACS is not an uncommon in children with SCA in Port Harcourt. Education of parents on the need to recognize early symptoms of the disease is essential. Clinicians must be trained to correctly diagnose and manage it promptly and efficiently to avoid its related disastrous consequences.
Key Words: Acute chesy syndrome; clinical features; Treatment; Outcome; Port Harcourt

PHO8
Point of care testing for anaemia in children using portable haematocrit meter: a pilot study from Ekiti State University Teaching Hospital and implications for health care in resource poor settings

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Background: Prompt and accurate diagnosis is needed to prevent the untoward effects of anaemia on children. Although haematology analysers are the gold standard for accurate measurement of haemoglobin or haematocrit for anaemia diagnosis, they are often out of the reach of most health facilities in resource poor settings thus creating a care gap. We conducted this study to examine the agreement between a point of care device and haematology analyser in determining the haematocrit levels in children and to determine its usefulness in diagnosing anaemia in resource poor settings.
Methods: EDTA blood samples collected from participants were processed to estimate their haematocrits using the two devices (Mindray BC-3600 haematology analyser and Portable Mission Hb/Haemotocrit testing system). The agreement between the two sets of measurements was assessed by the methods of Bland and Altman.
Results: The intraclass and concordance correlation coefficients were 0.966 and 0.936. Sensitivity and specificity were 97.85% and 94.51% respectively while the positive predictive and negative predictive values were 94.79% and 97.73%. The Bland and Altman`s limit of agreement was $-5.5 - 5.1$ with the mean difference being -0.20 and a non significant variability between the two devices measurements ($p = 0.506$).
Conclusion: Haematocrit determined by the portable testing system is comparable to that determined by the haematology analyser. We recommend further studies on its use as a point of care device for determining haematocrit in resource poor settings where haematology analysers are not available.
Keywords: Child health, Anaemia, Point of Care devices, Early diagnosis, Nigeria.

PHO 9

Sarcoma Botryoides in Nigerian children- Case Series

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Introduction: Rhabdomyosarcoma-(RMS) is a malignant embryonal tumour arising from the primitive muscle cells (rhabdomyoblast) of striated muscles but can also develop from virtually all organs including those devoid of striated muscles like the prostate, urinary and gall bladders. The embryonal type of this lesion accounts for about 60% of all cases and has the botryoid subtype-Sarcoma botryoides-(SB) as a variant. In this variant, tumor cells and an edematous stroma project into a body cavity like a bunch of grapes, is found most often in the vagina, uterus, bladder, nasopharynx, and middle ear.
Objective: This case series is presented to highlight the frequency of this supposedly rare tumour as well as the difficulties in the management.
Case Series: SB in three children aged between fifteen months and four years who presented in our facility is described. The three patients presented in advanced stage. The 1st two had histology confirmation which was embryonal RMS while the 3rd had urine cytology which was positive for malignant cells that showed oval/round cells with hyper chromatic nuclei. The first (vagina SB) had three cycles of chemotherapy with Vincristine, Dactinomycin and Cyclophosphamide, the 2nd (oral cavity) refused treatment while the 3rd (urinary bladder) died on the first day of chemotherapy with Dactinomycin.
Conclusion: SB is a rapidly growing malignancy, early presentation and prompt initiation of appropriate treatment is necessary to improve outcome. These are hampered by financial constraints and ignorance in resource poor settings like ours. Education, poverty alleviation and committed funds can improve the situation.

PHO10

Distribution of Haemoglobin phenotypes in neonates and older children less than 60 months in Ethiope West Local Government Area of Delta State

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Background: Globally, Nigeria ranks second highest in U-5 mortality and 8% of infant mortality accrues from Sickle Cell Disease (SCD);She alonecontributes 54.54% of the annual births of SCD. Over 66% of babies are born outside the formal health care system. Community-based studies that would give a more precise picture of the problem are lacking. Comprehensive care and follow up programs for SCD are scare.
Objective: To describe the distribution of haemoglobin phenotypes in newborns and older children aged <60 months in the communities of Ethiope West.
Methods: Following due ethical process, subjects within the age cohort 0 to 60 months who were randomly and prospectively selected were enrolled from three communities of Ethiope West. Their socio demographic parameters were noted and blood samples collected unto Whartmans paper and EDTA bottles, were transported to the Laboratory in Cotonou. Analysis was by isoelectrofocussing and the Capillaris method for the hemoglobin phenotype determination.
Results: Two hundred and eighty eight (288) neonates and one thousand, two hundred and sixty three (1,263) older children were recruited from randomly selected homes in three health wards. Results were available for Two hundred and forty six (246) neonates and one thousand,one hundred and ninety four (1,194) older children
Five haemoglobin phenotypes consisting of HbAA (73.6%), HbAC (0.4%), HbAD (0.1%),HbAS (23.7%) and HbSS (2.2%) were identified.
Their distribution by age cohorts varied and stabilized beyond age 24 months. The observed prevalence of HbSS ranged from 1.9% to 3.2% in the cohorts aged 1 month to less than 60 months. In the neonates, prevalence was 1.2%, specific distributions for the other haemoglobin phenotypes were HbAA (78.5%), HbAC (0.8%) and HbAS (19.5%).
86.9% of the children aged 1month to less than 60months had normal nutritional status, 20.7% were underweight, while 13.8% were stunted. Abnormal clinical signs was significantly higher among HbSS subjects.
Conclusion: Various phenotypes have been described from the communities of Ethiope West. These findings support the case for early diagnosis of sickle cell disease that can pave the way for comprehensive care management and follow up of these cases.
Key Words: Hemoglobin Phenotypes, SCD, Children

PHO11

Morbidity characteristics of children with sickle cell anaemia admitted in children's ward of ESUTH over a 5 year period

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Method: Retrieval of folders of all sickle cell patients admitted within June 2010 and May 2015 and extraction of data.
Results: Over a 5 year period, there was a total of 99 patients with genotype HbSS admitted, 47 Male and 52 Female with ratio 1:1.1 respectively.
Body pain was the commonest presenting complaint in 86 patients(80.6%), followed by fever in 82 patients (82.5%), pallor in 49 patients(49.4%), cough in 19 patients (19.1%), limping in 5 (5.6%), convulsion in 3 (3%).
The provisional diagnosis was Vaso occlusive crisis in 86 patients (80.8%), Anaemic crises in 22 patients (22.2%). 70 patients had Malaria (70.7%), Sepsis in 33

patients (33.3%), Acute Chest Syndrome in 15 patients (15.2%), Acute/Chronic Osteomyelitis in 7 patients (7%), Septic arthritis in 3 patients (3.3%), CVA/TIA in 2 patients (2.7%) and meningitis in 1 patient (1%).
Management involved use of oral analgesics only in 28 patients (28.3%) and 71 patients (71.7%) required parenteral analgesics also. 40 patients (40.4%) received blood transfusion out of which 29 received 1 unit of blood, 8 patients received 2 units, 1 patient received 3 units and another 1 patient more than 5 units of blood.
Only one mortality was recorded.
Conclusion: Pain is the commonest presenting complaint. Morbidity pattern over the period of study was low among these patients.

PHO12

Assessment of *micro-rna* 150 and 221 as prognostic markers in *bcr-abl* positive chronic myeloid leukaemia

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Background: Micro-RNAs control gene expression by destabilizing targeted transcripts and inhibiting their translation. In many human cancers including CML, abnormal expressions of miRNAs have been described.
The current treatment for newly diagnosed cases of CML is imatinib and it produces rapid haematological responses. It is currently impossible to predict whether a patient will develop resistance to imatinib. This makes identification of predictors of resistance to imatinib an important goal in their management.
Micro RNA expression patterns can be used to predict outcome (remission or relapse). Here the possible use of micro RNA 150 and 221 for prognostication was studied.
Methods: Peripheral blood samples of CML patients who are being treated with imatinibwas analyzed for the expression of microRNA 150 and 221 (n=50)
Total RNA was extracted from GITC lysate of the blood using RN easy mini Spin column. Total RNA was converted to complimentary DNA by random hexamerpriming using murine moloney leukaemia virus reverse transcriptase. PCR was used for detecting *bcr-abl*transcript type.
Results: Samples showed expression of miRNA-150 and miRNA-221. Correlation of BCR-ABL ratio with miRNA-150 and miRNA-221 was done and the Spearman correlation coefficient value between *bcr-abl1*and miRNA-150 was 0.442 (P value = 0.001;CI, 0.18-0.65 showing a fairly strong correlation. Coefficient of determination=20%,CI: 3-42 %, implying about 20% of *bcr-abl1* ratio could be accounted for bymiRNA-150 values. The Spearman value between *bcr-abl1* and miRNA-221 was 0.26;CI: -0.02-0.51;P=0.0652 showing miRNA-221 had weak correlation.
Conclusion: Further studies would be required to elucidate the mechanism of this interaction

PM 1

Pregnancy outcome of ART-experienced and ART-naïve HIV-infected mothers

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Introduction: Untreated maternal Human Immunodeficiency Virus (HIV) infection is associated with adverse pregnancy outcome including preterm birth, low birth weight, and mother-to-child transmission of the virus.
Aim: To compare the pregnancy outcome between treatment-experienced and treatment-naïve HIV-infected mothers.
Methods: A cross-sectional study of HIV-infected mothers who brought their infants for follow up between November 2007 and May 2015. Relevant information obtained includes: time of diagnosis, antiretroviral therapy (ART) regimen and when it was commenced, gestational age at delivery and birthweight of child. Infection status of the infant was determined by DNA PCR at 6weeks of age. Based on when ART was commenced, mothers were grouped into three [(HAART experienced (HE) if ART was started before pregnancy, HAART in pregnancy (HIP) and no HAART (NH)].
Result: A total of 1,466 HIV-exposed infants were seen (616(42%) in HE, 312(21.3%) in HIP and 538(36.7%) in NH groups). There were 735(50.1%) males and 731 (49.9%) females. Zidovudine/Lamivudine/Nevirapine was the most frequently used combined ART in 78%. The mean birthweight was 3.12±0.38Kg (3.10±0.58Kg in HE; 3.12±0.53Kg in HIP; 3.19±0.74Kg in NH) (p=0.04). A hundred and seventy-five (11.9%) babies were preterms [73(11.6%) in HE; 25(8.0%) in HIP; 77 (14.3%) in NH](p=0.02), while 144(9.8%) were LBW [64(10.4%) in HE; 15(6.1%) in HIP; 61(11.3%) in NH] (p=0.038). Twelve (0.8%) babies had birth defects [8 (66.7%) in HE; 4(33.3%) in HIP]. The commonest birth defects were neural tube defect 6(50%) and congenital heart defect 4(33.3%). Overall transmission rate was 22.6% [3.9% in the HE, 5.1% in HIP and 54.1% in NH groups](p=0.00001).
Conclusion: The benefits of early HAART in reducing mother-to-child transmission must be weighed against the risks of lower birth weight and potential teratogenic effects of drug exposure on the foetus.
Key words: pregnancy outcome, ART naives, ART experienced, preterm delivery, Low birth weight, birth defects, MTCT.

PM 2

Prevalence of malaria in Paediatric HIV Patients as seen at the National Hospital, Abuja- Nigeria

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Background: Malaria and HIV accounts for childhood morbidity and mortality in the sub-Saharan Africa. Malaria deaths approximate 655,000 /year, of which 86% are children, and of about 40 million HIV people, 2.6million are under 15years.
Aim: To determine the prevalence of malaria parasitemia in HIV infected children and determine any associated factors.
Method: A prospective descriptive study on HIV seropositive patients recruited as cases, attending the paediatrics HIV treatment clinic, National Hospital Abuja-Nigeria. These were age and sex matched with non- HIV patients as controls. All subjects would not have been on antimalarial chemoprophylaxis or received antimalarial in the previous 2weeks. With a questionnaire, subject's biodata and other relevant information were obtained. Laboratory tests included Hb/PCV, MPs and CD4 count. Consent and ethical approval were obtained.
Result: a total of 120 patients were seen, (60, HIV seropositive/ 60 non_HIV), mean age (±SD) 10.08 (±3.68) years. 29(48.3%) HIV positive versus 26 (43.3%) non-HIV patients owns an ITN, (p=0.583); 16(26.7%) HIV positive versus 13(21.7%) non-HIV used the ITN, (p= 0.522). 8(13.3%) HIV positive versus 15 (25.0%) non HIV had positive malaria parasitemia, (p= p=0.104). Bivariate analysis of HIV infected with positive malaria parasitaemia showed no significant difference with ages, sex, WHO staging and CD4 count, ownership and usage of ITN; (Fisher's exact >0.05).
Conclusion: positive malaria parasitemia level was not found significant in HIV positive patients.
Key words: paediatrics HIV, Malaria, ITN (insecticide treated net)

PM3

Prevalence of malaria among Neonates presenting with fever in Port Harcourt, Nigeria

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Background: Malaria remains one of the most significant disease burdens in Africa especially in children and pregnant women. Malaria in the newborn once considered rare has now been reported as a common phenomenon. Diagnosis of malaria in the neonatal period is quite challenging as the clinical features of malaria are non-specific, variable and similar to those of sepsis.
Aim: To determine the prevalence of malaria in neonates who present with fever.
Patients and Methods: A 12 month prospective study was carried out in the neonatal unit of the Braithwaite Memorial Specialist Hospital in Port Harcourt, Nigeria. Neonates 0-28 days old presenting with fever were recruited. Blood film for malaria parasite and full blood count were done for each recruited patient before the commencement of medications.
Results: Of 782 neonates admitted into the neonatal unit, 103 (13.2%) were recruited. Forty five (43.7%) had positive malaria parasite. Twenty one (46.7%) were males and 24 (53.3%) were females with a M:F ratio of 1:1.1. Thirty six (80.0%) of the neonates with positive malaria parasite were aged 0-7 days while 9 (20%) were between 8-28 days. Other common clinical features of malaria in neonates presenting with fever were poor suck (24.4%) and jaundice (15.6%). Thirty eight (84.4%) neonates were discharged home while 1 (2.2%) died.
Conclusion: Malaria is not uncommon in the neonatal period. Poor suck and jaundice are the commonest clinical features of malaria in the neonatal period apart from fever.
Keywords: Malaria, Neonates, Prevalence, Clinical Features, Port Harcourt

PM4

Symmetrical peripheral gangrene following severe malaria

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Introduction: Symmetrical peripheral gangrene (SPG) is a well-documented but rare clinical syndrome characterized by symmetrical distal ischemic damage leading to gangrene of two or more sites in the absence of large vessel obstruction or vasculitis. The aetiologic factors responsible for SPG are vast and it could follow many common disease. We present a 9month old child who developed symmetric peripheral gangrene following severe malaria.
Case Summary: M.F is a 9month old infant from Ilorin East Area of Kwara State who presented with a two day history of high grade intermittent fever and a one day history of progressively worsening paleness of the palms and soles. No history of bleeding from any part of the body, jaundice nor passage of coca-cola colour urine.
On examination he was lethargic, severely pale, febrile (Temperature 38°C) in respiratory distress with Grunting. Pulse rate was 160beats per minute, Blood pressure 70/40mmHg, Respiration 40 breaths per minute Rapid diagnostic test for malaria was positive, his packed cell volume (PCV) was 9%. His genotype was AA).
Twenty four hours after admission he developed dark discolouration and subsequent gangrene of the tip of the digits of both feet and the hand which initially pro-

gressed up to the distal interphalangeal joint. Investigations done showed no evidence of large vessel vasculitis, disseminated intravascular coagulopathy nor connective tissue disorder.
He was managed for severe malaria (Severe anaemia in heart failure and metabolic acidosis) with intravenous Artesunate, transfusion with packed cells, intravenous fluid Infusion and sodium bicarbonate. There was no further progression of the gangrene beyond 48hrs on conservative management.
Conclusion: The exact pathophysiology of the vascular occlusion in SPG is uncertain. A low-flow state along with disseminated intravascular coagulation (DIC) is usually present. SPG is a cause of significant morbidity and mortality often requiring multiple limb amputations in the survivors. Early recognition of SPG and its underlying conditions can have profound impact on the management of the condition and its final outcome.
Key words: peripheral, gangrene, malaria, child

PM5

Outcomes of Paediatrics HIV Care at the University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu after ten years of service

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Background: The use of anti-retroviral therapy has resulted in improved survival among HIV-infected children. Paediatric HIV services formally commenced at the University of Nigeria Teaching Hospital in 2006.
Aim: To determine the outcomes for HIV infected children at UNTH, Enugu.
Methods: This was a review of prospectively collected data of HIV-infected children seen between July 31st 2006 and August 1st 2015 at the Paediatric HIV clinic of the University of Nigeria Teaching Hospital, Ituku Ozalla, Enugu.
Results: Five hundred and eighteen of 555 enrolled children had complete data and were included in the data analysis. Two hundred and sixty-five (51.2%) were females. The mean age of the participants was 9.8 ± 4.5 years while the mean age at HIV diagnosis 5.2 ± 3.8 years. Two hundred and sixty-two subjects (50.6%) had one or more co-morbidities at baseline assessment. Four hundred and five (78.2%) were on HAART and 61 (15.1%) have been switched to second line regimen. Two hundred and twenty-nine were orphaned (paternal, 104; maternal, 63; and double 62). Three hundred and forty (65.6%) were still in care, 143 (27.6%) had been lost to follow up or dead while 35 (6.8%) were transferred out or into the adult clinic. Four hundred and forty eight of the mothers (86.5%) and 319 of fathers (61.6%) were HIV-infected. Seventy-four children (14.3%) knew their HIV status. Eighty-three of 143 (58%) LTFU or dead subjects compared to 162 of 340 (47.6%) still in care had baseline co-morbidities (p = 0.01). Three hundred and fifteen of 340 (92.6%) still in care and 30 of 35 (85.7%) transferred compared to 60 of 143 (42%) LTFU or dead were on HAART (p<0.001). Forty-eight of 340 (14.1%) still in care and 7 of 35 (20%) transferred compared 6 of 143 (4.2%) LTFU or dead were on second line regimen (p = 0.003). Mothers' HIV status was unknown in 14 (4.1%) of those still in care and 2.9% transfers compared to 16.8% among the LTFU or dead (p <0.001). Fathers' HIV status was unknown in 36 (10.6%) of those still in care and 2.9% of transfers compared to 28.7% among the LTFU or dead (p <0.001). Sixty (17.6%) among those still in care and 25.7% among the transfers versus 3.5% of LTFU or dead had been disclosed (p <0.001).
Conclusions: Absence of HIV co-morbidities at presentation, being on HAART, known parental HIV status and status disclosure to HIV-infected children improves outcome.
Key words: Paediatric HIV, children, outcomes, Enugu.

PM6

Babesiosis: a rare cause of recurrent severe anaemia in a 3 year old girl

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Abstract: Babesiosis is a rare malaria-like disease caused by intra-erythrocytic parasite *Babesiamicroti*. Humans get infected by bites of ticks commonly found on the body of dogs and other animals. The incidence is unknown in our environment. The clinical presentation can be silent or benign in majority of cases; and may be life-threatening or fatal especially in those who are immunocompromised.
We report the case of a 3 year old girl who presented with recurrent fever, recurrent severe anaemia and jaundice. The family keeps a dog, but no history to suggest tick bites. She had multiple blood transfusions during the illness. An initial diagnosis of malaria and sepsis was made. She however did not improve with appropriate treatment for the initial diagnoses. With the need for multiple transfusions (up to 10 transfusions at a frequency of 4-5 days); further examination of her blood film revealed intra-erythrocytic parasite with maltese cross. She was treated with intravenous quinine and clindamycin. She improved on these medications and was discharged home.
Babesiosis is rare in our environment. A high index of suspicion is needed to enhance the diagnosis and to prevent potential mortality in affected children.
Keywords: Babesiosis, recurrent severe anaemia, multiple blood transfusions.

PM7

Beta-endorphin levels in the cerebrospinal fluid and plasma of children with cerebral malaria

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Background: Cerebral malaria (CM) is the most lethal form of malaria, yet its pathogenesis is not fully resolved. Alterations in cytokine expression, local inflammation and microvascular obstruction are all hypothesized. Beta (β)-endorphins have also been postulated to be involved in this process although the exact role is unknown. This paper reports on one aspect of a study on β-endorphins in CM.
Objectives: This study set out to determine the levels of β-endorphin in cerebrospinal fluid (CSF) and plasma of children with CM.
Methods: It was a cross-sectional study conducted at the OAUTHC, Ile-Ife, Osun State, Nigeria where consecutive children admitted for CM and who met the study criteria were recruited. Additional to the standard investigation for CM, CSF and venous blood samples were obtained from the subjects for the determination of β-endorphin levels.
Results: Forty children with CM were studied along with forty age - and sex - matched controls. The mean CSF β-endorphin (± SD) level for the children with CM was 1.8±0.9 pmol/ L. The mean plasma β-endorphin levels at admission (3.1±2.0 pmol/ L) and discharge (4.1±3.3 pmol/ L) were higher in children with CM than in the control subjects (2.7±0.7 pmol/ L). However, only the mean plasma β-endorphin levels at discharge was significantly higher than that of controls ($p = 0.012$).
Conclusion: The findings showed the mean plasma β-endorphin level was higher in children with CM than in the controls and there was increased production of β-endorphins in children with CM during the course of the illness.

PM8

Prevalence and intensity of soil-transmitted helminth infection in Human Immunodeficiency Virus (HIV) infected children in two hospitals in Abakaliki, Ebonyi State, Nigeria

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Background: Sub-Saharan Africa is a high risk area for helminthic infection and as well harbors 68.0% of all people living with HIV infection worldwide. Studies among Ethiopian immigrants with helminthiasis in Israel showed immune dysregulation and a reduction in CD4 T -cell count among subjects, which returned to normal with the use of antihelminthic. In Nigeria, epidemiological studies among HIV infected patients (adults and children) showed significantly higher prevalence rate of helminthiasis compared to controls.
Method: This study was done to determine the prevalence and intensity of helminthic infection in HIV infected children in Abakaliki. It was a cross sectional study that involved consecutive recruitment of 84 confirmed HIV infected children and equal number of age and gender matched HIV negative children as controls. Stool analysis was by Kato-Katz technique.
Result: A total of 168 participants (84 subjects and 84 controls) were recruited during the study period. Majority were males (98, 58.3%), male to female ratio was 1.4:1. The prevalence of soil-transmitted intestinal helminthiasis in children infected with HIV from the two study centers was 28.6% as against 20.2% observed in controls (difference not significant). Mean parasite intensity of HIV infected subjects was found to be 276.35± 55.34, which was significantly higher than the mean parasite intensity observed in controls (162.35± 55.29), ($p = 0.000$).
Conclusion: this study showed a higher mean parasite intensity of helminth infection in HIV infected children compared to normal population. Six-monthly deworming for all children, and in particular HIV infected children, is recommended.

PM9

Effect of immunodeficiency on the prevalence and intensity of helminth infections in HIV infected children in two hospitals in Abakaliki, Ebonyi state, Nigeria

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Introduction: Chronic helminthiasis cause immune dysregulation while HIV infection results in immune destruction. The presence HIV and helminth infection in a co-infected host may influence morbidity and /or mortality of either disease.
Aims/objectives: This study was aimed at determining the effect of immune deficiency on the prevalence and intensity of helminth infection in HIV infected children in two hospitals in Abakaliki.
Methodology: It was a cross sectional study that involved consecutive recruitment of 84 confirmed HIV infected children attending the ART clinic. Stool analysis for subjects was done, using the Kato-Katz technique. Blood sample for estimation of CD4 cell count was carried out using flow cytometer (Cyflow SL, Partec, Munster, Germany) from the subjects.
Results: A total of 84 subjects were recruited during the study period, majority were males (58.3%). Male to female ratio was 1.4:1. The age range of participants was 2-17 years, while mean age of subjects infected with helminthiasis was 6.10± 3.34 year. Four out of 84 subjects (4.8%) had severe immunodeficiency, 10 (11.9%) had advanced immunodeficiency, 18 subjects (21.4%) had mild immunodeficiency and 52 out of 84 subjects (61.9%) had not significant immunodeficiency.

A significant number of subjects in advanced and severe immunological stages had helminthiasis (χ^2 =12.49, p=0.001). There was however no significant relationship between intensity of helminthiasis and immunologic stages of subjects.
Conclusion: The study showed that immunodeficiency state may influence acqusition of helminth infection in HIV infected children.
Recommendation: Six-monthly de-worming of HIV infected children is recommended.
Key words: Immunodeficiency stage, helminth infection.

PM10

The prevalence of *Helicobacter pylori* infection using stool antigen in apparently healthy Nigerian secondary school children in Surulere LGA Lagos state

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Background: Helicobacter pylori (*H. pylori*) is known to cause chronic gastritis, peptic ulcer disease, gastric adenocarcinoma and mucous associated lymphoid tissue lymphoma and it is acquired in childhood. There is limited knowledge about the prevalence and associations of *H. pylori* using a non-invasive method like the monoclonal stool antigen test with a high sensitivity, specificity and accuracy in Nigeria. This study aimed to determine the current prevalence and associated factors in apparently healthy Nigeria secondary school children in Surulere L.G.A of Lagos state.
Method: A multistage sampling technique was used to recruit two hundred and fifty nine apparently healthy children, aged 11 – 18 years (106 males, 153 females). They were investigated in a descriptive cross-sectional study for *H. pylori* infection using a monoclonal stool antigen test. A pretested interviewer administered questionnaire was used to obtain information on their socio-demographic factors and their nutritional status was determined to assess associated factors.
Results: The majority (51.7%) were aged 11 – 13 years while about half were from the middle socio-economic class. The overall prevalence of *H. pylori* was 49.0% in 259 secondary school children. The age specific rates were 52.0% in children age 11 – 13 years, 43.3% in children age 14 – 16 years and 4.7% in the age group 17 – 18 years. *H. pylori* was associated with underweight malnutrition (p = 0.003) but no association was found with age, gender, type of secondary school, Class category, maternal level of education and socioeconomic class.
Conclusion: The prevalence of *H. pylori* infection is high among Nigerian secondary school children particularly in those who are underweight. Routine screening of underweight secondary school children for *H. pylori* is recommended. The long term effect of *H.pylori* on the health of children needs to be further evaluated.

PM11

Neonatal malaria complicated by hypoglycaemia and hyperparasitaemia: Report of a case successfully treated with intravenous artesunate

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Introduction: There is no established and widely accepted guidelines for clinical management of severe neonatal malaria. The aim of this paper is to raise the alertness of physicians regarding the occurrence of severe malaria in the neonatal period and to describe the treatment modality we adopted (in the absence of an internationally accepted guidelines for chemotherapeutic treatment of neonatal malaria).
Case presentation: We report a case of a 26-day-old-female infant who presented with fever and poor feeding of 2 days duration. On examination, she was lethargic and pyrexial with a temperature of 38.7^{o}C. She was in respiratory distress with a respiratory rate of 72 cycles/ minute. The lung fields were clear on auscultation. The laboratory findings were falciparum malaria parasitaemia 3+, PCV 32%, and random blood glucose 1.9mmol/ L. Blood culture was sterile and chest radiograph was normal. A diagnosis of severe neonatal malaria was made. This case highlights the successful use of intravenous artesunate followed by oral artesunate in the treatment of neonatal malaria complicated by hypoglycaemia and hyperparasitaemia (severe neonatal malaria), without apparent adverse effect. The total duration of treatment was 7 days.
Conclusion: Although intravenous artesunate followed by oral artesunate appears safe and effective in the treatment of severe neonatal malaria, further data is required in order to develop evidence-based treatment guidelines for such neonates.
Key words: malaria, neonate, hypoglycaemia, hyperparasitaemia, artesunate.

PM12

Clinical correlates of CD4 cell count in HIV infected children in UITH, Ilorin

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Background: Human Immuno- deficiency Virus (HIV) infection constitutes a global health crisis. The $CD4^+$ cell count is essential monitoring tool for disease course and response to treatment. Studies on $CD4^+$ count clinical correlates in Nigeria are few and where available, are not based on World Health Organization clinical staging criteria, hence this study.
Objective: To determine the clinical correlates of cd4

cell count in HIV infected children in UITH, Ilorin.
Methodology: A cross-sectional case control study conducted at the Unilorin Teaching Hospital, Ilorin. A total of 140 children recruited (70 HIV infected and 70 non-infected controls). Parameters obtained were weight, height, OFC, age and sex. All recruited had thorough clinical examination and WHO Paediatric HIV/AIDS Clinical Staging criteria used. Whole blood CD4 counts assessed by flow cytometry. CD4 percent was calculated using standard formula.
Results: Had 140 children evaluated. Both populations were similar with 94(67%) males and 46 (33%) females with a M: F of 2:1 and age range 1.5 -12 yrs. The Mean CD4/mm^3 ranges for each clinical stage(Stage 1=534-669/ mm^3; Stage 2=500-655/ mm^3; Stage 3=141-571/ mm^3; Stage 4=34-393/ mm^3).The CD4% ranges for each clinical stage: Stage 1(15-16%); Stage 2 (15-16%); Stage 37-15%); Stage 4(1-10%).The subjects had severe immune-suppression(< 500/mm^3) with majority of the subjects 70(50.0%) in stage 3.
Discussion: Mean $CD4^+$ count and CD4% decreased with increasing WHO Clinical Staging with positive correlation between CD4% and clinical staging, but not with $CD4^+$ count.
Conclusion: The $CD4^+$ count and percent decreased with worsening clinical stage in the HIV infected children. This study highlights usefulness of clinical correlates of $CD4^+$ cell count and CD4 percentages in care of HIV infected children in resource poor settings.
Key words: Human Immuno- deficiency Virus (HIV); World Health Organization (WHO), Clinical Correlates $CD4^+$ Cell Count.

PM13

Contact tracing from paediatric TB cases in Northern Nigeria: a neglected strategy?

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Introduction: The 'Roadmap for Childhood Tuberculosis' was developed by WHO and partners in 2013 to achieve zero deaths from childhood TB with one of its key messages being collaboration across the health system and community in areas of high TB burden. Contact tracing using paediatric index cases has not been adequately explored in control of Childhood TB. To maximize this strategy, a survey of current practice in health institutions in Northern Nigeria was carried out.
Methods: Practice of specialists responsible for caring for child TB care from 5 health institutions in Northern Nigeria in the last one year were compared using interview method. Details were obtained with regards to process of contact tracing from index paediatric TB patients and relative yield from this activity was obtained.
Results: Contact tracing occurs in a mean of 25% of paediatric index cases. This is carried out by the attending physician in all cases by requesting for Tuberculin Skin tests in all contacts mentioned by the care giver at the point of diagnosis, most commonly during in patient care. The caregiver, usually parents and close relatives are required to bring such contacts to the health facility for screening. The relative yield over the last year is about 5 new paediatric cases per centre from this method of contact tracing. Number need to contact trace (index case/new cases) is 15 and number needed to screen (contacts/new cases) is 60.
Conclusion: The practice of contact tracing from the tertiary institutions needs to be strengthened for maximum effectiveness desired.

PM14

Seroprevalence and risk factors of hepatitis B (HBV) virus infection among adolescents in Enugu, Nigeria

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Background: Despite the universal hepatitis B virus (HBV) immunization coverage of newborns in Nigeria for over a decade now the prevalence of HBV among Nigerian children is still in the hyper-endemic range.
Objectives: To determine the prevalence and risk factors for hepatitis B virus infection among adolescents in Enugu urban.
Methods: A cross-sectional seroprevalence survey was conducted among school children in Enugu urban. Subjects were selected using multistage sampling method. Hepatitis B surface antigenaemia (HBsAg) was assayed for in blood using rapid third generation enzyme-linked immunosorbent assay kits. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 20.0 (Chicago, Il. USA) with the level of statistical significance set at $p = < 0.05$.
Results: Four hundred and twenty children aged 10 to 18years were studied.
Of these, 13 tested positive for HBsAg, giving an overall hepatitis B seroprevalence of 3.1%.
The median age for HBsAg positivity was 14 years though age was not statistically associated with HBV infection. Social class, scarifications/tattooing, circumcision and history of surgery were the statistically significant modes of transmission.
Conclusion: The seroprevalence of hepatitis B among children in the study population is high.
Its screening in school children should be incorporated into school health services in our setting while aware-

ness campaigns and health education on its modes of transmission and prevention should be promoted and strengthened.

Keywords: HBsAg, Prevalence, Risk factors, Children.
Funding: ROCHE Pharmaceuticals Nigeria supported the study with donation of some of the test kits.

PM15

Buruli Ulcer in a 12 year old girl from an urban Setting

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Background: Buruli ulcer is a rare disease caused by *Mycobacterium ulcerans*. Although buruli ulcer is endemic in Nigeria, it may be overlooked or underdiagnosed.
Case: A twelve year old girl from an urban middle class setting presented with a 5 day history of ulcer, 12cm by 10 cm, on the medial aspect of the left foot. It was preceded by multiple eruptions over same region. No history of fever. She was managed initially for an unspecific ulcer with antibiotics. Her haemoglobin genotype is AS and she tested HIV negative. She had no evidence of diabetes mellitus; her random blood sugar was 102mg/dl. X-Ray of the foot did not show any bony involvement. Acid fast bacilli were not seen but histology of wound biopsy showed extensive necrotizing epidermal ulceration with granulomatous tissues suggestive of buruli ulcer. She had skin grafting and antituberculosis therapy consisting of Rifampicin and Moxifloxacin.
Conclusion: Awareness and knowledge about buruli ulcer are necessary in order to initiate early treatment and prevent permanent disfigurement and disability.

PM16

Bone and soft tissue infections: need for a review

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Background: Bone and soft tissue infections are common in the paediatric age group with increasing reports of infection with community acquired resistant strains of the usual organisms. Regular review of the bacteriology of such infections is warranted.
Method: A prospective descriptive study of the presentation and bacteriology of bone and soft tissue infections was carried out between January 2013 and December 2014 among in-patients in a tertiary hospital.
Results: Sixty-onepatients presented with bone and soft tissue infections during the study period. There were34 (55.7%) males and the median age was 58months (range 2 -168 months). The mean duration of symptoms before presentation was14 days (SD12days) and preadmission antibiotics were recorded in 25(41%). The most involved site was the right lower limb, most commonly pyomyositis (n=16; 26%), osteomyelitis (n=15; 25%) and septic arthritis (n=14; 23%). One in five patients had sickle cellanaemia. Only 26 (42.6%) patients had cultures. Ten (16%) were gram-negative of which 3 (30%) were extended spectrum beta- lactamaseproducing strains. The common isolates were*Staph. aureus (n*=13; 50%)and*Klebsiella* species (n=4;15.0%). No mortality was recorded.
Conclusion: Multidrug resistant gram negative organisms are emerging as important pathogens in soft tissue and bone infections. The importance of obtaining appropriate cultures to guide antibiotic therapy cannot be overemphasized.

PM17

Acceptance of HIV testing among caregivers of children using provider-initiated testing and counselling strategy in Ido-Ekiti, Nigeria

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Background/Introduction: Missed opportunities exist for early detection of HIV infection in children visiting healthcare institutions. Provider Initiated Testing and Counselling (PITC) Strategy is a strategy for reducing missed opportunities for children who are HIV infected and enhancing their access to HIV preventive measures, care interventions and treatment.
Aims/Objectives: The objective of the present study was to determine the acceptability of PITC Strategy for HIV testing among caregivers of children seen at Paediatric Emergency Unit of Federal Medical Centre (FMC), Ido-Ekiti, and the factors that influenced acceptability.
Methods: This was a prospective, hospital-based cross-sectional study of acceptability of HIV testing using PITC model. Consecutive caregivers of new patients aged 0-15 years were offered HIV testing using WHO guideline on PITC. Pre-test and post-test information was provided in individual sessions. Those whose HIV status was already known were excluded.
Results: Five hundred and thirty (97.6%) of 543 caregivers counselled for HIV testing of their wards gave consent for the test. The age range of the caregivers was 19-56 with a mean of 30.2 (6.8) years. Acceptability rate was inversely associated with the level of education and social class of the caregivers. The proportion of uncles/ aunties among those that declined testing was 7.7%; significantly higher than the proportion of 0.6% among those that accepted testing ($p = 0.02$). Three hundred and forty-eight (65.7%) of the caregivers whose wards required admission accepted the testing, while only four (15.4%) whose wards did not require admission accepted the test ($p = 0.001$).
Conclusion & Recommendations: Acceptability rate for HIV testing, using PITC Strategy, was high in all the age-groups; acceptability rate was inversely associated

with their level of education and social class

PM18

The dilemmas of the comorbidity of lassa fever and acute abdomen in the management of acutely ill children in lassa fever endemic areas

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Background: The management of febrile children with Lassa fever (LF) is made more difficult by the presence of comorbidities including malaria, bacterial sepsis and acute abdomen. Among the challenges associated with the latter is the problem of delayed or missed diagnosis of LF. However, the associated problems of over diagnosis of LF and delayed or missed diagnosis of acute abdomen have not been described.
Methods: The diagnosis of Lassa fever was confirmed using reverse transcriptase polymerase chain reaction, RT-PCR.
Results: A 7 years old girl was admitted with acute onset of vomiting, fever and abdominal pain and typical signs of acute appendicitis. The abdominal ultrasound scan supported the diagnosis and the child scheduled for surgery but this was deferred because the Anaesthetic Team thought that "high grade fever makes appendicitis unlikely", raised the possibility of LF, and requested for Lassa virus RT-PCR. Although the RT-PCR was positive, and a regimen of intravenous ribavirin and antibiotics was instituted, the child did not improve but deteriorated until operated upon on the 6th day. The findings included "ruptured vermiform appendix, and abscess walled by omentum to the ileocaecal region and pelvis with approximately 200 ml of pyoperitoneum". She improved rapidly postoperatively and was discharged 8 days later after completing the course of ribavirin and antibiotics.
Conclusion: The dilemmas illustrated by this case are questions of the indications for confirmatory tests in VHF endemic areas, and the reality of carrier state versus what constitutes VHF co-infection or comorbidity. The need for a consensus on these and other related issues are discussed.

PNP1

Bilateral Pelvic Kidneys: A review of 2 cases

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Background/Introduction: Congenital anomalies of the urogenital system are common and renal anomalies are mostly asymptomatic and may be found only during physical or radiological investigations for urological or other medical complaints. Ectopic kidneys can be pelvic, iliac abdominal or anywhere along the path of their ascent; with a slight predominance on the left side and commoner in males.
Aims/Objectives: We report two cases seen in our hospital.
Methods: Case 1- A 9 year old girl presented with recurrent fever, recurrent facial swelling and recurrent abdominal discomfort. Urinalysis and urine MCS were all normal. Ultrasound showed both kidneys were located in the pelvis. Right kidney was posterosuperior to the urinary bladder while the left was in the left iliac fossa extending into the pelvis. Both kidneys were otherwise normal, she however did not return for IVU. Case 2- A 12 year old boy presented with fever, lower abdominal pain, dysuria, haematuria and urethral discharge. Urinalysis showed + of blood, urine microscopy showed few red blood cells, but no organism was cultured. Ultrasound showed both kidneys were located in the pelvis adjoined over the midline by isthmus giving a horse shoe kidney; however both were otherwise normal. IVU showed both kidneys were located in the midline within the pelvic region. Left pelvicalyceal system and ureters appeared normal in outline and calibre, no calculus was seen and right kidney was not excreting contrast. An assessment of UTI with unilateral functional horse shoe kidneys was made and he was managed with antibiotics to be followed up at the nephrology clinic.
Conclusion & Recommendations: Bilateral pelvic ectopic kidneys are not common, may be asymptomatic and diagnosed following radiological investigations. We reported two cases diagnosed by ultrasound and one confirmed to have unilateral functional kidney.

PNP2

Treatment of idiopathic steroid resistant nephrotic syndrome: a single centre experience in South-Western Nigeria

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Background: Newer immunosuppressives such as calcineurin inhibitors and mycophenolatemofetil (MMF)

have improved the outcome of children with steroid resistant nephrotic syndrome (SRNS). These agents have only recently become available for use in our environment and their impact on care is not known.
Objective: To determine the outcome of children with SRNS treated with cyclosporineand compare with the outcome following treatment with other drugs.
Methods: Medical records of children managed for idiopathic nephritic syndrome (iNS) over a six-year period were reviewed.
Results: We reviewed 103children (M:F;1.7:1, 0.6-15.2 years, median 8.8) with iNS of whom 25(24.3%) had SRNS. Follow-up was for 5 months to 6.25years. Of these 25, only 17 received further immunosuppressants. Seven of 10 children (70%) treated with cyclosporine and alternate day prednisolone achieved full remission. Treatment failure in one child was due to poor compliance from drug unaffordability. In comparison, cyclophosphamide and alternate day prednisolone achieved full remission in 2 of 5 (40%) children while enalapril and alternate day prednisolone achieved partial remission in 2 of 3 (66%) children. One child with cyclophosphamide resistance subsequently achieved remission with cyclosporine. Full or partial remission to all medications was not related to sex *(p=0.96)*, age *(p=0.54)*, serum albumin *(p=0.37)* or hypertension *(p=0.43)* but was positively correlated with serum cholesterol. *(p= 0.02).* There were 4 deaths (16% mortality). Side effects of cyclosporine were minimal comprising facial acne and gingival hyperplasia in one child each and hirsutism in five.
Conclusion: Most children with iSRNS treated with cyclosporine achieved remission of nephrotic syndrome.

PNP3
Review of Paediatric dialysis in the University of Port Harcourt Teaching Hospital (UPTH)

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Background: Dialysis is an important treatment for patients with renal disease. It may be in the form of peritoneal dialysis or hemodialysis. This may be used for patients with acute kidney injury or chronic kidney diseases.
Methods: A prospective review of children from 3days to 16years who had dialysis from November 2014 to 2015 in UPTH was done to ascertain the indications, types and outcome.
Results: A total of 1,640 children including 554 neonates were seen during the study period. Out of which 31(1.9%) patients had renal failure, 18(58%) acute kidney injury (AKI) and 13(42%) chronic kidney disease (CKD).
The patients comprised of 8 (25%) males and 23 females (75%) with a male: female ratio of 1:3. Dialysis was done in 16 (52%) patients, 3 (19%) females and 13 (81%) males. They were 3(18.8%) infants, 4 (25%) >5-10 years, and 9 (56%) > 10 years of age.
Four (25%) had peritoneal dialysis (PD) and 12 (75%) had haemodialysis (HD)
The duration of peritoneal dialysis ranged from three to seven days. PD was used for 3 infants with AKI. One was a neonate with septicaemia and hyperbilirubinaemia, 2 had possible haemolytic uraemic syndrome and one child with malaria AKI.
One (6.2%) of the patients died while undergoing peritoneal dialysis for malarial AKI. Three (19%) of the patients who had peritoneal dialysis had full recovery of kidney function and are presently on follow up in the nephrology clinic
All of the patients with CKD had haemodialysis, 4(25%) were discharged against medical advice due to financial constraints and 7(43.8%) died.
Conclusion: Dialysis remains a life saving treatment for children with renal failure especially AKI. The long industrial strike during the study period affected the number of cases seen. Mortality is very high for patients with CKD due to high cost of dialysis.

PNP4
Visual recovery in a paediatric patient with nephrotic syndrome and bilateral optic atrophy?

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Background: Posterior reversible encephalopathy syndrome (PRES) is a recently described disorder and the clinical symptoms include alterations in mental state, seizures, vomiting, and abnormalities of visual perception such as cortical blindness. Were port possible unexpected visual recovery in the presence of bilateral optic atrophy in a 5 year old girl with nephrotic syndrome (NS), which may be related to PRES.
Case Report : A 5 year old girl presented to our hospital with recurrent body swelling of one month duration, lethargy and breathlessness of a day's duration. She had anasarca and her BP was 124/91mmHg. Herbiochemical parameters were consistent with NS, while E/U/Cr were normal. She had intravenous Fresh frozen plasma, frusemide, mannitol and ceftriaxone. She developed focal seizures associated with loss of consciousness on the 6th day of admission. Her CSF analysis was normal. Intravenous calcium gluconate, and oral calcium supplementation were added to her medications with resolution of symptoms. She was started on oral prednisolone. However by the 20th day on admission, she was noticed not to be tracking objects. Her visual acuity was no perception of light bilaterally, and fundoscopyshowed bilateral optic atrophy. However, she appeared to have recovered some vision and began reaching out for objects 31st day on admission. She was discharged on day 33, having received 22 doses of prednisolone. She however continued to have proteinuria and is to be followed up on outpatient basis.
Conclusion: Potential explanation for transient blindness in our patient is PRES, however patient will require fur-

ther evaluation.

PNP5

Risk factors for chronic kidney disease in children attending paediatric outpatient clinic in Federal Medical Center Asaba

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Introduction: In Nigeria, chronic kidney disease (CKD) incidence in children ranges between 2-6 cases per annum. Management of CKD which includes dialysis and renal transplant (renal replacement therapy) is not easily obtainable and affordable in our environment. Identifying patients with increased risk and prompt treatment aimed at risk reduction, slow down the progression. Consequently, screening for early detection therefore becomes inevitable, even individuals who appear normal should be screened for modifiable CKD risk factors such as proteinuria, hypertension and obesity.
Objectives: To screen for risk factors for chronic kidney disease in children attending paediatric outpatient clinic in Federal Medical Center Asaba.
Methods: It was a cross sectional descriptive study in which all the children 3-16 years, attending the children outpatient clinic, and have satisfied the inclusion criteria were screened for proteinuria, hypertension and obesity, in the month of June 2014.
Results: A total of 298 children: 153 (51.3%) males and 145 (48.7%) were screened. Children (3-9 years) comprise 74.2% (221/298) while adolescents (10-16 years) were 25.8% (77/298), with a male to female ratio of 1:1.1. The median age of the children was 6 years and a range of 3-16 years. Risk factors for CKD (proteinuria, hypertension and obesity) were detected in 15.8% (47/298) children. The respective proportion of those with proteinuria, hypertension and obesity was 3.0% (9/298), 3.7% (11/298), 10.1% (30/298) and the presence of the risk factors for CKD has no age or gender predilection.
Conclusion: Risk factors for CKD exist in asymptomatic children, obesity being the most common.

PNP 6

End stage renal disease (ESRD) in Down syndrome – A report of two cases

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Introduction: The incidence of renal and urological involvement in Down's syndrome (DS) is not very common. End stage kidney disease; a stage 5 Chronic kidney disease is associated with high morbidity and mortality in sub-Saharan Africa (SSA). There are no reported cases of ESRD in DS in SSA
Aim: We reported 2 cases of DS who presented as early teens with CKD to highlight the challenges in the management
Methods: A 13year old male and 10year old female with DS were admitted in University of Port Harcourt Teaching Hospital (UPTH) with features of CKD which progressed to ESRD. Renal biopsy on the first case showed focal segmental glomerulosclerosis. The second case had congenital heart disease as a co-morbidity. The first case was managed conservatively, while the female had only 2 sessions of haemodialysis due to financial constraints, until their demise. There was no facility for chronic peritoneal dialysis, and renal transplantation in children is very expensive in Nigeria.
Conclusion: Regular monitoring of renal function early in life and routine echocardiography should be done at birth in all DS to prevent or retard the progression to ESRD

PN1

Hearing impairment and poor school performance amongst primary school children in Port Harcourt

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Background: Hearing impairment is the most frequent sensory deficit in humans with a higher prevalence in developing countries. It results in speech and language delay, difficulties in parent-child, peer-child and child-teacher interactions. Consequently, it may lead to poor school performance, low self-esteem and poor psychosocial development.
Aim: To determine the prevalence of various types of hearing impairment in primary school children in Port Harcourt and it's relationship with poor school performance.
Materials and methods: A cross-sectional study using multistage random sampling was carried out. Eight hundred and two children from 13 primary schools in Port Harcourt were screened using pure tone audiometry after an otoscopic examination. The last school year's examination average score for each child was obtained from the class register. An average score of less than 2 standard deviation below the class mean score (-2SD) was considered a fail. A score above this was considered a pass.
Results: The prevalence of hearing impairment was 29.4%. It was more common among the older children, females and those from the lower socioeconomic classes. Conductive hearing loss was the most common type. Unilateral hearing loss was more common than bilateral hearing loss. Poor school performance was commoner among those with hearing impairment and

more so, amongst those with bilateral hearing impairment.
Conclusion: Hearing impairment is common among primary school children in Port Harcourt and may contribute to poor school performance.
Keywords: Hearing impairment, pure tone audiometry, conductive hearing loss, poor school performance.

PN2

Pattern of Attention Deficit Hyperactivity Disorder among primary school pupils in Ile Ife

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Background/Introduction: Attention Deficit Hyperactivity Disorder (ADHD) is a neurobehavioral developmental disorder with onset in early childhood that has varying prevalence across the World. In Nigeria, there is paucity of information on ADHD prevalence.
Aims/Objectives: This study determines the pattern of ADHD among pupils in Ile- Ife.
Methods: This cross-sectional study was conducted between February and July 2014 among 1,385 pupils in Ile -Ife. These pupils were selected using the multistage random sampling technique. The Disruptive Behaviour Disorder Rating Scale (DBDRS) was used in screening the studied population who had ADHD according to the Diagnostic Statistical Manual of Mental Disorder fourth edition (DSM IV).
Results: Sixty five (4.7%) out of the 1,385 pupils had ADHD. Thirty eight (5.5%) of the 687 males and 27 (3.9%) of the 698 females had ADHD. There was no statistically significant difference in prevalence and gender (?2 = 2.141, p = 0.143). Twenty eight (43%) of the 65 pupils had the inattentive subtype, 25 (38.5%) had the combined subtype while 12 (18.5%) had hyperactive / impulsive subtype. Forty five (6.1%) of 735 pupils aged 5-8 years and 20 (3.1%) of 650 pupils aged 9-12 years had ADHD. The prevalence was significantly higher in the younger age group than the older age groups (?2 = 7.153, p = 0.007).
Conclusion & Recommendations: The prevalence of ADHD was 4.7% with no gender prevalence. The inattentive subtype was the commonest and the hyperactive subtype was the least seen in the study. Hence, early screening and prompt treatment of ADHD will promote the pupil's academic potentials.

PN3

Electroencephalography as a tool for evidence-based diagnosis and improved outcomes in children with epilepsy in a resource-poor setting

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Background: Electroencephalography (EEG) remains the most important investigative modality in the diagnostic evaluation of individuals with epilepsy. Children living with epilepsy in the developing world are faced with challenges of lack of access to appropriate diagnostic evaluation and a high risk of misdiagnosis and inappropriate therapy.
Objective: We appraised EEG studies in a cohort of children with epilepsy in order to evaluate access to and the impact of EEG in the diagnostic evaluation of the cases.
Methods: Inter-ictal EEG was requested in all cases of pediatric epilepsy seen at the pediatric neurology clinic of the University College Hospital, Ibadan over a period of 18 months. Clinical diagnosis without EEG evaluation was compared with the final diagnosis post- EEG evaluation.
Results: A total of 329 EEGs were recorded in 329 children, aged 3months to 16 years, median 61.0 months. Clinical evaluation pre-EEG classified 69.3% of the epilepsies as generalized. The a posteriori EEG evaluations showed a considerably higher proportion of localization-related epilepsies (33.6%). The final evaluation post EEG showed a 21% reduction in the proportion of cases labeled as generalized epilepsy and a 55% increase in cases of localization-related epilepsy ($p<0.001$).
Conclusion: There is a high risk of misdiagnosis and therefore the use of inappropriate therapies in children with epilepsy in the absence of EEG evaluation. The implications of our findings in the resource-poor country scenario are key for reducing the burden of care and cost of epilepsy treatment on both the caregivers and the already overloaded tertiary care services.

PN4

Acute Disseminated Encephalomyelitis: a report of two cases

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Introduction: Acute Disseminated Encephalomyelitis (ADEM) is an immune-mediated inflammatory condition affecting the brain white matter and spinal cord. It usually manifests as an acute-onset encephalopathy associated with polyfocal neurologic deficits typically following a bacterial/viral infection or vaccination. It's a monophasic disease of pre-pubertal children with a mean age incidence of 5-8 years.
Method: We present the first report of ADEM in Nigeria; a 4 year old boy and another 7year old boy, who presented to our facility with features of acute cerebellar dysfunction, speech defects and behavioural changes. Both were evaluated by cranial CT and cranial MRI scans. Diagnosis was based on clinical presentation and neuroimaging studies. They were treated with high dose intravenous methylprednisolone at 20mg/kg/day in two divided doses for 5 days with remarkable resolution of symptoms. Both made total recovery without any residual neurological sequelae.
Conclusion: The diagnosis of ADEM should be considered in any child presenting with an acute onset of visual impairment, weakness, numbness and ataxia. Clinical evaluation and cranial MRI aid diagnosis. High dose Methyl Prednisolone is highly effective in management.

PN5

Suspected helminth- induced eosinophilic meningitis in a Nigerian boy: a case report

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Background: Eosinophilic meningitis is a rare form of meningitis mostly associated with CNS helminthic infection with the rat lungworm, *Angiostrongylus cantonensis* acquired by eating raw or undercooked seafoods being the commonest cause. The diagnosis is established by travel and diet history in the presence of typical clinical and laboratory findings which include eosinophilia in CSF with or without peripheral blood eosinophilia. Though without definitive CSF findings, we present a case of a Nigerian boy with suspected helminth-induced eosinophilic meningitis.
Case Summary: A.A, a 13 year old boy presented with a four day history of severe headache and three day history of vomiting. No history of photophobia or neck pain. Vomiting was effortless and without nausea. No history of fever or similar episodes of headache in the past.
Child had ingested poorly cooked snails alongside some of his colleagues in his boarding school 10days prior to presentation with similar symptoms in the other colleagues including hyperaesthesia and coma in some of them. Child had clinical features of raised ICP at presentation and subsequently developed pareasthesia. CT scan was normal; CSF analysis showed protein of 12mg/dl, WBC: 96cells/mm3 with 70% polymorphs, polymorphs were however not further classified. There was also peripheral eosinophilia (744cells/μL). He was managed with dexamethasone, albendazole, repeated CSF taps and analgesics and improved with no CSF sequelae on follow up.
Conclusion: Helminth-induced meningitis is a cause of meningitis in this part of the world, though rarely seen. Appropriate diagnosis and management gives a favourable outcome.

PN6

Baseline CD4 levels in Children with neurologic abnormalities in UITH, Ilorin

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Background: Paediatric baseline data on $CD4^+$ cell count and CD4 percentage in children are few in Nigeria. Majority of available literatures with regard to $CD4^+$ cell count were done in adults, and are being extrapolated for paediatric use. The study was carried out to determine the $CD4^+$ cell levels children with Neurologic disorders (Cerebral Palsy & Seizure disorders) in UITH. The $CD4^+$ cell count is essential monitoring tool for evaluation of immune status.
Methodology: A cross-sectional study conducted on first visit to the Neurology Clinics of the Unilorin Teaching Hospital, Ilorin. A total of 70 children recruited. Parameters obtained were weight, height, OFC, age and sex. All recruited had thorough clinical examination and Whole blood CD4 counts assessed by flow cytometry. CD4 percent was calculated using standard formula.
Results: Had 70 children evaluated with 47(67%) males and 23 (33%) females with a M: F of 2:1 and age range 1.5-12 yrs (mean age of 4.9± 3.4). Mean (SD) $CD4/mm^3$ for 1.5-2.9yrs was 2112.7 (214.3); for 3-5yrs 1630.4 (115.7) and for >5-12 yrs was 1182.8(102.6). Mean (SD) CD4% for 1.5-2.9yrs was 56.1 (68.3); for 3- 5yrs was 18.7 (19.4) and for >5- 12yrs was 47.5 (68.9).
Discussion: The mean $CD4^+$ cell count and mean CD4% was highest for children aged 1.5 to 2.9yrs. The mean $CD4^+$ cell count and mean CD4% decreased with increasing age.
Conclusion: The baseline CD4 levels in Neurologic disorders was highest for children aged 1.5 to 2.9yrs and simulates the baseline CD4 levels in Normal healthy children population.
Key Words: Neurologic Abnormalities, Paediatric baseline data.

PN7

Childhood epilepsy in Nigeria: a systematic review

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Background: Epilepsy is the most common neurological disorder in childhood worldwide with the greatest burden in the developing countries where about two-thirds of the affected population are children. It is a significant cause of childhood morbidity and mortality in developing countries where a wide treatment gap exists.
Method: We carried out a systematic review of studies on childhood epilepsy in Nigeria from 1977 to date via extensive literature search on HINARI, Pubmed, Google scholar and Mendeley databases using the keywords: childhood epilepsies, Nigeria and seizures.
Results: Our search revealed36 studies on childhood epilepsy in Nigeria,26 were hospital based while 10 were community based. Average hospital based prevalence was 38.2% while a significant proportion (40.3%) of patients had symptomatic epilepsy. Generalisedtonic clonicepilepsy topped the list of seizure semiologies accounting for 55.5% of cases while perinatal asphyxia and intracranial infections were the leading predisposing factors.
Access to diagnostic aids like electroencephalography and neuroimaging and enormity of cost of care are major challenges. A considerable proportion of patients (42.6%) still utilize complementary and alternative medicine while a sizeable proportion of patients (44.6%) had associated co-morbidities among which cerebral palsy stands out. Basic knowledge about epilepsy is inadequate among school teachers and pupils.
Conclusion: Adequate funding of epilepsy care and research is required to reduce the burden of childhood

epilepsy in Nigeria. Multicentre collaboration will also enhance filling of reseach gaps and development of national protocols for the management of epilepsy.

PN8

Leukodystrophy: Report of a rare paediatric neurodegenerative disorder

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Background: Leukodystrophy comprises of rare genetic disorders that cause global neurologic deterioration as a result of degeneration of myelin sheath of the cerebral white matter, leading to disorders of movement, speech, vision, hearing and mental development. Their diagnosis rests mainly on the clinical clues and the MRI patterns. We report this case to remind physicians of these rare neurologic disorders.
Case presentation: We report HS, a 30months old girl who presented with a complaint of progressive loss of previously acquired neurodevelopmental milestones including neck control, worsening speech, swallowing difficulties and nystagmus, noticed over the previous 8 months. She developed multifocal convulsions a week to presentation. There was no antecedent febrile illness, convulsions or loss of consciousness and no history of ingestion of concoctions, toxic substance or head trauma. Nopast history of convulsions or hospital admission. She had normal perinatal history, normal initial neurodevelopment and is fully immunized. Parents are first cousins (consanguineous marriage) but no similar history in siblings.
Examination revealed normal head size with horizontal nystagmus, head lag and quadriparesis. No involuntary truncal or limb movements were noted. Extremities were hypotonic and tendon reflexes were diminished. Ophthalmologic examination revealed no evidence of optic atrophy or neuritis. Brain MRI (T2 weighted) showed extensive and symmetric diffuse areas of high signal intensity in the deep white matter areas with no post contrast enhancement, in keeping with aleukodystrophy. Search for acquired neurodegenerative disorders such as HIV- associated progressive encephalopathy, infantile SSPE and multi-focal / inflammatoryleukoencephalopathies were negative.
Conclusion: Leukodystrophy is a rare but debilitating neuro-genetic disorder whose current care is mainly supportive. Molecular genetic studies and biochemical enzyme assays help in further characterizing some of the varied forms of the disorder, but thesewere not available to us.
Key words: Leukodystrophy, neurodegenerative, neuroregression, cerebral white matter

PN9

Pattern of dysbiosis in the gastrointestinal system of children with Autism Spectrum Disorder

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Introduction: Autism Spectrum disorder (ASD) is the most chronic childhood developmental disorder with severely compromised life style without treatment. It majorly affects the social interaction of the child with abnormal repetitive behaviors and various speech impairments.
There is no known cause of autism but predisposing factor is said to be multifactorial, genetic predisposition being influenced by environmental factors that includes gastrointestinal issues.
Gastrointestinal dysbiosis has been reported in Children with ASD and this is said to contribute to leaky gut syndrome via increased intestinal permeability and some of the adverse behavioral issues like increased irritability, tantrums, aggressive behaviour, and sleep disturbances. These include deficient in the normal good flora of the intestines with overgrowth of fungal infection and other bacteria leading to dysequilibrium in the gut flora.
Objectives of the study: This study was aimed to describe the pattern of dysbiosis in children with ASD
Methods: This is a prospective descriptive study on children with ASD attending Our Lady of Guadalupe Autism centre. Ethical approval was obtained from Ethical committee of National Hospital, Abuja. Modified Checklist for Autism in Toddlers (MCHAT) and Diagnostic and Statistical manual of
Mental disorders (DSM IV) were used to identify the children with ASD. A comprehensive digestive stool analysis was conducted on the subjects recruited and the results obtained were analyzed. Additional information on the sociodemographic were obtained and recorded in a proforma.
Results: 24 children with ASD were enrolled from August 2013 to July 2015. The ages were 2-10 years.
All the subjects had Bifidobacter in the stool of which 15(62.5%) had appropriate maximum level. There were 9(37.5%) with lactobacillus strain in their stool sample. 15(62.5%) subjects had zero level of lactobacillus in their stools.
The other bacteria cultured in various levels were Alpha hemolyticus streptococcus in 20 (83%), Gamma hemolyticus in 19 (79.2%), Klebsiella infection 14 (58.3%), Bacillus specie 7 (29.1%), Proteus spp 3(12.5%), Pseudomonas 2(8.3%), Hemolytic e coli 5(20.8%) and Staph aurous 5(20.8%).
The fungal organisms found were Candida spp in 23 subjects (95.8%) and Trichosporon spp 5 (20.8 %)
The different species of Candida were; Candida parapiliosis in 13 (54.2%), Candida kruseii 5 (20.8%) and Candida albicans 10 (41.7%).
Conclusion: There is evidence of dysbiosis in Children with ASD with markedly low level of lactobacillius

which is the main beneficial gut flora called probiotics. Empirical treatment with Probiotic might help alleviate some symptoms seen in children with ASD
Key words: ASD, Dysbiosis.

PN10

Pott's Puffy tumour with multiple intracerebral abscesses: case report and review of literature

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Background: Pott's puffy tumour, is a rare clinical entity characterized by subperiosteal abscess associated with osteomyelitis. It is usually seen as a complication of frontal sinusitis or trauma and characterized by osteomyelitis of the frontal bone, either direct or through haematogenic spread. This results in swelling on the forehead. The infection can spread inwards, leading to intracranial abscess. Although it can affect all ages, it is mostly found among teenagers and adolescent.
Objective: We present a case of multiple intracranial abscesses with Potts Puffy tumour.
Case Report: A 13 year old girl presented with recurrent catarrh of 2 years, fever and headache of three weeks and a week onset of swelling on the forehead and weakness of the right side of the body. She had a firm tender mass on the forehead, slurred and incoherent speech and right cranial nerve VII palsy.
She also had signs of meningeal irritation- positive Kernig's & Brudzinge's signs, hypertonia of right upper and lower limbs and reduced power same side. Brain computerized tomography (CT) scan showed multiple left sided epidural abscesses, right sided frontal lobe abscess, paranasal abscesses with osteomyelitis of frontal bone, meningeal enhancement in keeping with meningitis and a Potts puffy tumour of the scalp.
Patient had mini craniectomy with drainage of the abscesses. She received intravenous antibiotics and physiotherapy.
Conclusion: It is pertinent to make an early diagnosis and institute effective treatment for sinusitis in order to prevent this rare clinical entity.
Key Words: Multiple intracranial abscesses, Pott's puffy tumour, osteomyelitis.

PN11

Pattern of childhood neurological disorders seen in the Paediatric Neurology Clinic of Benue State University Teaching Hospital Makurdi, North Central Nigeria

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Introduction: Neurological disorders are an important cause of childhood morbidity with potentially grave consequences, particularly in resource limited settings. An understanding of the characteristics of the prevalent disorders would facilitate capacity development for early diagnosis, adequate management and prevention resulting in better outcomes with these disorders.
Objective: To describe the pattern of childhood neurological disorders in the Paediatric Neurology Clinic (PNC) of Benue State University Teaching Hospital (BSUTH), Makurdi.
Method: A retrospective study of the records of all cases seen in the PNC of BSUTH between January 2013 and September 2015. Parameters assessed included: age and sex distribution, mode of referral, type of disorders and identifiable predisposing conditions.
Results: The 220 cases seen during the study period were reviewed and of these 161(73.2%) were males and 59 (26.8%) were females (M:F, 2.7:1). Their age range was from 1 day to 17 years and majority (156, 70.9%) were under-fives. Most (170, 77.3%) were referrals from outside the hospital. The main neurological conditions were seizure disorders (125, 56.8%) and cerebral palsy (42, 19.1%). Predisposing conditions were identified in 80(36.4%) of the cases. Meningitis (46, 57.5%), birth asphyxia (11, 13.8%) and neonatal jaundice (10, 12.5%) were the commonest of the identifiable predisposing conditions.
Conclusion: Seizure disorders, particularly among under-fives, was the commonest disorder. The common predisposing conditions identified underscore the need to strengthen perinatal care and improve upon preventive measures against meningitis while developing the capacity for the management of seizure disorders and the other prevalent conditions.

PN12

A probable case of Herpes simplex encephalitis with negative cerebrospinal fluid PCR

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Background/Introduction: Herpes simplex encephalitis (HSE) is a rare, life-threatening brain infection caused by Herpes simplex virus (HSV). The diagnostic gold standard is the detection of HSV DNA in the cerebrospinal fluid (CSF) by Polymerase chain reaction (PCR). Though PCR is highly sensitive and specific, false negatives can occur and result should be interpreted in the context of the patient's clinical presentation and the timing of the CSF sampling.
Aims/Objectives: We present a case of probable Herpes simplex encephalitis with negative CSF and Blood PCR.
Methods: A 4 year old female with fever and seizures being treated at a secondary hospital for suspected meningitis developed "psychiatric symptoms" and progressive loss of consciousness and was transferred. She had few vesicular rashes peri-orally. Cerebrospinal fluid analysis was normal. CT scan showed cerebral oedema. She was commenced on intravenous acyclovir. CSF and blood for HSV1 and HSV2 DNA PCR were negative. She regained consciousness after 24 hours of acyclovir. Aggression and behavioural symptoms persisted but

improved with addition of oral carbamazepine. All symptoms had completely resolved by the 14th day. Treatment was completed for 21 days.
Results: The clinical response to acyclovir informed decision to complete therapy. Several studies in Literature had documented Herpes encephalitis with negative HSV PCR with early CSF samples. Repeat CSF PCR may be subsequently positive. The repeat in index cases was limited by financial constraints and family's belief
Conclusion & Recommendations: Antiviral therapy for HSE should be initiated early and completed where there is strong clinical evidence and response to therapy.

PN13
Acute flaccid paralysis at the Lagos University Teaching Hospital

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Background/Introduction: A key contributor to the recent removal of Nigeria from the list of polio-endemic countries is the implementation of a highly sensitive acute flaccid paralysis (AFP) surveillance programme. The Paediatric Neurology Unit, Lagos University Teaching Hospital (LUTH) is highly involved in the reporting, evaluation and management of children with AFP in Lagos, Nigeria.
Aims/Objectives: To describe the causes, course and outcomes of childhood AFP managed at LUTH from January to October 2015
Methods: A retrospective folder review of all children with acute flaccid paralysis was undertaken.. AFP was defined as 'acute onset of flaccid paralysis in one or more limbs in any child less than 15 years.'
Results: Six cases of AFP were managed. Their age range was 2 -14 years with M: F of 1:1. All children were hospitalized and 1 required intensive care. All children had sufficient stool samples collected by the local government AFP surveillance team for analysis. No cases of wild or vaccine-associated poliomyelitis were detected. The most common cause of AFP was Guillain-Barré syndrome in 4 out 6 (67%). Other diagnoses were one each of non-polio enterovirus infection and rickets. Majority (3 out of 5) had recovered fully, two had residual paralysis and one was still in intensive care. None of the children with GBS received intravenous immune globulin.
Conclusion & Recommendations: Our findings support the non-endemicity of polio in our environment with Guillain-Barre Syndrome being the commonest cause of AFP. AFP surveillance should be on-going and resources for management of severe GBS should be enhanced.

PN14
Miller-Dieker lissencephaly syndrome – a case report

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Background/Introduction: Miller-Dieker Lissencephaly Syndrome is a rare chromosomal genetic disorder characterized by classical lissencephaly and characteristic facies due to deletions within chromosome band 17p13.3. The condition is often associated with seizures, severe intellectual disability and high mortality. We present a case of Miller-Dieker Lissencephaly Syndrome in a 5 month old male infant to highlight the clinical and imaging features of this rare genetic syndrome.
Aims/Objectives: A case report of a rare chromosomal syndrome
Case Report: DM, 5 month old male infant, presented on account of recurrent seizures and suspected intracranial haemorrhage on transfontannelle USS. Significant history of polyhydramnios; amniocentesis offered was declined by parents. Child had history of global developmental delay, recurrent aspiration of feeds, failure to thrive and 3 episodes of seizures in the last 3 weeks prior to presentation. Findings on physical examination were microcephaly, hypertelorism, low set ears, small palpebral fissures, small jaw, left undescended testis, inability to fix/follow with the eyes and global hypertonia. Brain CT scan showed lissencephaly (type1). Chest X-ray showed bronchopneumonia. ECG was normal. Echocardiography revealed patent foramen ovale.
Discussion: Our patient has classic features of the rare Miller-Dieker Lissencephaly Syndrome as documented in literature. About 25 – 30% of patients with classical lissencephaly have the typical dysmorphic facies and congenital malformations like cryptorchidism seen in our patient. Prenatal diagnosis opportunity was lost by amniocentesis refusal. Mortality is high with deaths before age of 2 years.
Conclusion & Recommendations: Miller-Dieker Lissencephaly Syndrome is a rare but fatal condition. Prenatal diagnosis should be offered to mothers with polyhydramnios. Genetic counseling should be provided for affected family.

PN15
Co-existence of Sturge-Weber and Klippel-Trenaunay-Weber Syndromes in a Nigerian Child – Case report

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Background/Introduction: The co-existence of Sturge-Weber Syndrome and Klippel-Trenaunay-Weber Syndrome in the same patient is a rare phenomenon with few cases reported in the literature globally. None has been reported in an African child. We present a case report of a 6 year old Nigerian girl with overlapping presentation of both neurocutaneous syndromes.
Aims/Objectives: Case Report of a rare co-existence of

two neurocutaneous syndromes in a Nigerian child
Methods: Case Report: GR is a 6 year old girl who presented to the Paediatric Neurology Clinic of the Lagos University teaching Hospital on account of focal seizures since age 1 year and global developmental delay. Physical examination revealed port-wine stain of the left face, upper and lower limbs with hemi-hypertrophy and hemiparesis of the left side of the body. There was bupthalmous and glaucoma of the left eye. She had moderate intellectual disability on assessment. There were no varicose veins. EEG and Brain CT scan investigations were performed.
Results: Sturge-Weber syndrome is the more commonly seen and reported neurocutaneous disorder in Nigeria. The extension of the naevus to the trunk and the limbs and hypertrophy of the affected limbs suggest an overlapping of Sturge-Weber Syndrome with the Klippel-Trenaunay Syndrome. The latter is a rarer sporadic neurocutaneous syndrome characterized by a triad of port-wine stain, varicose veins and musculoskeletal hypertrophy (bone and soft tissue).
Conclusion & Recommendations: Presence of extensive port-wine stain to the trunk and limbs with hemihypertrophy of the limbs should alert the Clinicians to the rare possibility of co-existence of Sturge Weber Syndrome and Klippel-Treunauy-Weber Syndrome. Our patient is the first reported case in a Nigerian Child.

PP1

Idiopathic Pulmonary Hypertension in paediatric practice: a case report of the diagnostic challenges and Clinical course in a Nigerian child

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Background: Idiopathic pulmonary hypertension (IPH) is an uncommon problem in children that can results to significant morbidity. In resource limited setting, management of affected patients can be quite challenging..We present a caseof IPH in a 3-yr old girl and highlight some of the challenges in the management of the patient.
Case Report: H.R, a 3 year old girl presented with recurrent breathlessness, cough and body swelling since the age of 3 months. She was referred for further evaluation on account of persistent symptoms despite treatment for bronchopneumonia and 2 months course of anti-tuberculous drugs. Cardiovascular examination revealed left parasternal heave, loud P2 with signs of right sided heart failure. Screening for tuberculosis, HIV and viral hepatitis were negative.
Echocardiography revealed supra-systemic pulmonary artery pressure, with pulmonary artery systolic pressure of 127 mmHg (mean pulmonary artery pressure of 42 mmHg) against systolic blood pressure of 90 mmHg. The heart was structurally normal with no other identifiable cause for the elevated pulmonary pressure. Facilities for cardiac catheterization, Cardiac CT and MRI were not available for further evaluation. Patient was commenced on oral sildenafil and Bosentan. She responded well to treatment as evidenced by resolution of clinical symptoms and reduction in pulmonary artery pressure.
Conclusion: Idiopathic pulmonary hypertension does occur in children and responds well to dual therapy with sildenafil and Bosentan. Though echocardiography can help significantly in evaluation of patient with IPH, facilities for right heart catheterization should be made readily available to allow for a more accurate diagnosis.
Keywords: Idiopathic pulmonary hypertension, paediatrics, diagnostic challenge, clinical course

PP2

Prevalence and determinants of hypoxaemia in children admitted to the Emergency Unit of the Wesley Guild Hospital, Ilesa, Nigeria

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Rationale: The demands for oxygen therapy for very ill children in resource poor emergency units often outweigh supply. Hypoxaemia is often undetected and untreated in these children because of the non-availability of pulse oximeters and similar facilities to detect it. This study sets out to determine the prevalence and determinants of hypoxaemia among children admitted to the emergency unit of the Wesley Guild Hospital, Ilesa, Nigeria
Methods: Children aged one month to 15 years were consecutively recruited and prospectively studied over a ten month period. All the children hadtheir peripheral oxygen saturation (SpO_2) measured at presentation using a portable pulse oximeter (Nellcor$^{(R)}$ N-200, USA) and hypoxaemia was defined as $SpO_2 < 90\%$. Relevant history, examination findings were compared among hypoxaemic and non-hypoxaemic children. Multivariate analysis was used to predict the presence of hypoxaemia.
Results: Four hundred and two (402) children were recruited during the study period with male to female ratio of 1.3:1 and 84 (20.9%) were infants. The predominant presentations were acute complicated malaria (67.7%), respiratory tract infections (10.0%) and gastroenteritis (8.9%). Eighty three (20.6%) of the children were hypoxaemic at admission. Infancy, heart failure, cyanosis, grunting respiration and convulsionat presentation were associated with hypoxaemia ($p < 0.05$). Grunting (OR = 4.056; 95%CI=1.492-8.123; $p = 0.04$) and Cyanosis at presentation (OR =10.450; 95%CI = 1.647-19,422; $p = 0.006$) independently predict hypoxaemia.
Conclusion: Hypoxaemia occurred in approximately one out of five ill children admitted to the emergency unit of the WGH, Ilesa. Emergently ill children with cyanosis, grunting, respiratory distress and convulsion especially infants should preferentially be placed on oxygen therapy even when hypoxaemia cannot be confirmed.

PP3

Pulmonary artery hypertension in children: an audit of etiologic factors and outcome from a tertiary center in Sokoto, Northwestern Nigeria

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Background: Pulmonary hypertension (PH) is a relatively rare and frequently overlooked problem in children. It is diagnosed when the mean pulmonary artery pressure exceeds 25mmHg at rest or 30mmHg during exercise. As there is paucity of data on the subject in Nigerian children, this study was undertaken to determine the etiologic factors and outcome of PH among pediatric patients in Sokoto.
Materials and Methods: A retrospective study conducted between 1st August 2013 and 31st July 2015. Case records of all children diagnosed with PH by echocardiography and/or cardiac catheterization over the study period were retrieved. Relevant data was entered into Microsoft excel and analyzed.
Results: A total of 52 children were diagnosed with PH (3 confirmed by cardiac catheterization abroad). Their median age was 7 years (mean $\pm$ SD=7.6 $\pm$ 4.3), with 70% of them above 5 years. There are 19 males and 33 females, giving a M: F ratio of 1:1.7. Congenital heart diseases (CHD) are the most common causes seen in 30 (57.7%) patients followed by Acquired heart diseases in 15 (28.9%), sickle cell anemia in 5 (9.6%) and adenoidal hypertrophy with obstructive sleep apnea in one (1.9%) patient. One (1.9%) patient was considered to have idiopathic PH.
Six patients had surgery (3 for CHD, one for adenoids) while 27 patients were commenced on medical treatment (sildenafil and/or Bosentan in 9 patients and diuretics in 15 patients). Five (9.6%) patients died (4 preoperatively and 1 post operatively) while 18 (34.6%) were lost to follow up.
Conclusion: The etiology of PH in children is diverse, but CHDs remain the most common. Early diagnosis and treatment of underlying causes can prevent the development of PH and result in better prognosis.
Keywords: Pulmonary hypertension, etiology, children, sokoto, Nigeria

PP4

Trader's Perception of cooking smoke as a risk factor for childhood Pneumonia

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Background: Indoor air pollution by smoke from cooking fuel is a major risk factor for childhood pneumonia. The knowledge of caregivers about risk factors can facilitate the practice of appropriate preventive measures. This study set out to evaluate the perception of traders about cooking smoke as a risk factor for childhood pneumonia.
Methodology: A questionnaire-based cross-sectional study was carried out at a major market in Benin City prior to a market rally to celebrate World Pneumonia Day 2014. Ethical approval was obtained. The respondents who were traders gave verbal consent. Information on biodata, cooking location, cooking fuel and presence of under-fives in the cooking area of homes of respondents was sought.
Results: There were 1374 respondents with 1192 (88.5%) being females. Only 67(4.9%) respondents considered smoke from cooking fuel a risk factor for pneumonia while 99(7.2%) considered avoidance of smoke as a method for preventing pneumonia. Firewood (biomass fuel) was utilized by 272(19.8%) respondents. Respondents with no education were significantly more likely to use firewood ($p<0.000$).
All respondents with under-fives reported having them in the cooking area. Having a child who had suffered pneumonia previously was not significantly associated with knowing that smoke was a risk factor for childhood pneumonia $p>0.05$.
Conclusion: There is poor awareness of smoke as a risk factor for childhood pneumonia while the use of unclean fuel is significant. As part of health education on childhood pneumonia, smoke as a risk factor should be emphasized. Government should make cleaner fuels more available, accessible and affordable.

PP5

Congenital cystic adenomatoid malformation: case report of a rare cause of neonatal respiratory distress and review of literature

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Background/Introduction: Congenital cystic adenomatoid malformation (CCAM), now known as congenital pulmonary adenomatoid malformation (CPAM), is a rare developmental harmatomatous (dysplastic) lesion of the lower airway. It is a rare cause of respiratory distress and recurrent chest infections mostly in the neonatal period; however its presentation spans foetal to adulthood. In the developed world, most cases are diagnosed prenatally.
Aims/Objectives: To report a case and review literature
Methods: A 13 day old term male neonate was referred to LASUTH from a private hospital with increasing respiratory distress and an abnormal chest radiograph suggestive of pneumonic changes. At presentation, he was 2.8kg with severe respiratory distress. All other aspects of general examination were normal and there were no obvious dysmorphic features. A diagnosis of CCAM of the right lower lobe was made following a chest CT scan. The neonate subsequently had a successful resection of the lesion with markedly improved clinical course and resolution of respiratory distress. Histology revealed lung tissue with multiloculated cystic lesion diagnostic of type 3 to type 4 CCAM.

Results: Child is now 20-month old, is being followed-up at the out-patient clinic and has remained symptom free.
Conclusion & Recommendations: This case highlights the need for enhanced prenatal diagnosis; treatment of antenatally-diagnosed CCAM has better outcome than symptomatic ones. Neonates with suspicious chest radiographs should be offered superior imaging studies like CT. Subsequent early surgical intervention in tertiary centres with thoracic surgery expertise and intensive care would yield better chances of survival and reduce the longterm risks of recurrent chest infections and malignant transformation.

PP6

Air pollution and respiratory disease in children in Kaduna metropolis

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Introduction: Environmental air quality, especially in developing countries is responsible for more than half of health related risk posed by pollution. Air pollution has been identified in Nigeria from 3 main sources: industrial, traffic and effects of northeasterly (Harmattan) winds, all of which are identifiable in Kaduna metropolis. This study was designed to identify the contribution of pollutants from these sources on respiratory disease in children in Kaduna metropolis.
Methods: Air pollutants(gaseous and particulate matter) were sampled over a 12month period (March 2013- February 2014) in 3 industrial areas and a major road highway in Kaduna metropolisusing Graywolf Advanced-Sense Toxic Gas Monitor and $PM_{2.5}$ and $PM_{2.5-10}$ nucleopore polycarbonate filters in the low volume Gent sampler respectively for gas and particulate matter. Further analysis for PM was done using XRF and Optical Transmissiometer. Structured questionnaires were administered to parents of children resident within 100 metres radius of pollution sources and others further away to determine risk posed by pollutants tocommon childhood respiratory diseases.
Results: Major gaseous pollutants identified were Carbon Monoxide, Sulphur Dioxide, Hydrogen Cyanide and Ammonia (TVOC). Black Carbon was unacceptably high on the roadway and $PM_{2.5-10}$ contributed two thirds of particulate matter. The pollutants sources were anthropogenic in 90% of cases. Respiratory conditionswere commonly identified in school aged and include upper respiratory tract infection (94% of respondents; recurrence in 56%), exacerbations of asthma (16%) and pneumonia in 10%.Overall attributable risk percent of pollutants was 85%; gaseous pollutants 72%, particulate 92%.
Conclusion: Air pollution is an important risk factor forpaediatric respiratory diseases in Kaduna. It should be controlled and pollution indices developed for monitoring.

PP7

Diaphragmatic flutter in a Nigerian adolescent girl: a case report

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Background: Diaphragmatic flutteris a disorder characterized by rhythmic contractions of the diaphragmatic and respiratory muscles. The syndrome is extremely rare with varied clinical presentations resulting in late diagnosis and ineffective treatment. Symptoms include involuntary jerky upper trunk movements and pain.
Case Report: We report a 16 year old girl who presented to the cardiology clinic with a 2week history of persistent hiccup, involuntary jerky movements of the head and upper trunk, and chest pain. Movements were said to be absent during sleep, pain is said to be referred to the tip of the left shoulder. No previous history of trauma, no history of difficulty in breathing, no cough, no dyspnea on exertion. no past history of sore throat. The patient is not a known epileptic, has not been on any known medications in the recent past.
Examination findings revealed a well preserved adolescent, having intermittent jerky movements of the trunk, each lasting about 2secs, occurring every 2-5minutes. She looked anxious, well oriented, with coherent speech, intact cranial nerves, and normal tendon reflexes. Her peripheral pulses were synchronous with other peripheral pulses, with normal volume. The blood pressure was 108/67mmHg and the heart rate-75beats per minutes, and there were no murmurs.
Other systems examination revealed normal findings.
Laboratory investigations yielded normal results except for electroencephalograph that showed bilateral polywaves and spikes with hyperventilation. Photic stimulation was associated with spike in the left centro-parietal region.
The patient was treated with carbamazepine15mg/kg/day, with much improvements in symptoms.
Discussion and Conclusion: Diaphragmatic flutter is a rare disease that requires high index of suspicion to diagnose. Treatment can be challenging but we achieved symptom control with normal doses of carbamazepine.

PP8

Guideline defined asthma management: how compliant are general practitioners

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Background/Introduction: Asthma is a chronic debilitating illness in children, due mainly to the frequent acute attacks that may be experienced on exposure to triggers. The management of these acute attacks vary from place to place depending on the accepted guideline used in

such as area. However, there is a global initiative on asthma management that has unified all the local guidelines such that the management is almost the same worldwide. The presence and the adherence to this guideline remain questionable among health workers.
Aims/Objectives: To determine the awareness of and adherence to the GINA Guideline in the management of asthma by private practitioners.
Methods: Semi-structured self-administered questionnaires were given to private practitioners during one of their continuous medical education (CME) meetings on asthma given by the authors of the study. The questionnaires were filled by those present and retrieved before the meeting started. The data so generated were entered in EXCEL and transferred to SPSS and analysed.
Results: A total of 50 doctors in private practice took part in the study. 40 were males and 10 females. Out of the 50 respondents, 48 agreed that they managed asthma. The mean years after graduation was 18.04 yrs, mode 10 years, and median 13 years. Six of the 50 respondents were aware of the existence and content of the GINA Guideline. However, only 2 doctors could correctly state how to treat children under-5 years according to the GINA Guideline, 18 could not completely list the components, while 16 stated the wrong management of such children. In the case of children above-5 years, only those who could correctly treat children under-5 years also could treated children above-5 years with the GINA Guidelines. No participant could correctly state the Guideline-Defined long-term management of asthma.
Conclusion & Recommendations: From the foregoing, management of acute asthma by private practitioners does not follow the GINA Guidelines. This is a result of the poor awareness by the doctors of the existence of the Guideline. So there is need to intensify continuous medical education among private practitioners.

PS1

Management of congenital diaphragmatic hernia in a resource poor setting

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Background/Introduction: Congenital diaphragmatic hernia (CDH) is the presence of a defect in the diaphragm that allows herniation of some abdominal viscera into the thoracic cavity. It is commonly associated with respiratory distress, pulmonary hypoplasia, and persistent pulmonary hypertension at birth and can be fatal in the absence of timely intervention.
Aims/Objectives: To highlight challenges in the management of CDH in resource-limited settings using a case study.
Methods: A male neonate was diagnosed with CDH and managed successfully at the Ekiti State University Teaching Hospital (EKSUTH) after being admitted with respiratory distress, low arterial O2 saturation following referral from a secondary facility where he was being managed for congenital pneumonia. Although no scaphoid abdomen, further review revealed bowel sounds in the chest, right sided heart sounds. Chest X-ray confirmed the diagnosis but parents refused referral for cardiothoracic surgical repair on financial grounds. Exploratory laparotomy revealed bochdalek hernia with herniation of the spleen, transverse colon, descending colon and small intestine into the thorax.
Results: The defect was successfully repaired and the baby was discharged home seventeen days after the surgery.
Conclusion & Recommendations: CDH can readily be missed because several neonatal problems present in similar fashion, thus emphasizing the need for thorough evaluation of neonates with respiratory distress using both clinical and simple investigational tools to exclude other differentials. The case also highlights the need for appropriate referral and linkages between health care facilities in addition to good antenatal care (ANC) as there was no prenatal suspicion of CDH in this patient.

PS2

Challenges in management of Oesophageal atresia/ tracheoesophageal fistula at the National Hospital Abuja (NHA)

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Background: Although an uncommon major congenital malformation, oesophageal atresia is amenable to surgical treatment. Outcome of surgery is however influenced by associated pre- and post-operative morbidities.
Aim: To document the challenges encountered in the management of oesophageal atresia/ tracheoesophageal fistula at NHA.
Methods: The records of all neonates with a diagnosis of Oesophageal atresia/trachea-eosophageal fistula managed over a period of 5 years (October 2010-October 2015) were retrieved, reviewed and analyzed.
Results: A total of 22 patients with OA/TEF were managed. The records of 7 could not be traced; therefore only 15 (75%) of the cases were analyzed. There were 8 males and 7 females with a mean age at presentation of 4.4 (3.7) days and mean birth weight of 2940 (638) g. All the mothers had obstetric ultrasound examination but the findings were limited to polyhydriamnios in 9 (61%) and were reported as normal in 6 (39%). Fourteen of them were out born and the mean age at presentation was 4.4(3.7) days. The most common type was Vogt type 3b while67% were associated with one or more other congenital malformations: cardiac(70%) being the most common. The presence of aspiration pneumonitis, dehydration, sepsis and coexisting congenital malformations delayed surgery and impacted adversely on the outcome. Thirteen babies had surgery. Postoperative anastomotic break down and wound dehiscence were compounded by limitations in providing adequate nutritional support. Two babies died before their planned surgery and the overall mortality rate was 46%.
Conclusion: Antenatal and early neonatal diagnosis of

this condition rarely occurs in our setting, resulting in late surgery, post-operative complications and high mortality in affected babies.

Keywords: Challenges, management, oesophageal atresia, tracheoesophageal fistula.

PS3

Pattern of Emergency Surgical Cases admitted into the Emergency Paediatric Unit seen at UDUTH, Sokoto

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Background: Children with conditions requiring emergency surgery may initially present to the Paediatrician who should have high index of suspicion as some of these conditions are initial medical problems that become complicated.
Objective: To determine the pattern and outcome emergency surgical cases admitted via EPU, UDUTH, Sokoto.
Materials and Methods: A prospective study conducted over an18-month period (1st July 2012 to 31st December 2013). Subjects included all children with initial diagnosis of medical conditions who subsequently required surgical management seen at the Emergency Paediatric Unit. Data collected were demographic information, presenting symptoms and signs, initial and eventual surgical diagnosis and outcome.
Results: Children admitted during the period were 1738, 39 (2.2%) were diagnosed with surgical conditions requiring urgent consult to the respective specialties. Twenty-two (56.4%) were above 5 years old and 23 (60%) were of lower socioeconomic status. Male to female ratio was 3.9:1. Peritonitis from typhoid perforation was seen in 15 (38.5%) patients. Six (16.4%) patients had intussusception, five (12.8%) had upper airway obstruction from foreign body and post infective causes, 4 (10.3%) para-pneumonic effusions, 2 each (5.1%) acute appendicitis and Hirschsprungs disease while 1 each (2.6%) was diagnosed with congenital hypertrophic pyloric stenosis, injection abscess, posterior fossa tumor, intestinal malrotation and cholecystitis. Paediatrician diagnosis was consistent with intra-operative diagnosis in 35(89.7%) cases. Three mortalities(10.3%) were recorded.
Conclusion: Typhoid perforation is the commonest cause of paediatric surgical emergency in our environment. Preventive measures against infections will reduce this burden in our community.

Key words: Pattern, Emergency, Paediatric, Surgical, Cases, Outcome

SP1

Intimate partner violence in pregancy: effects on the innocent baby

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Abstract: Baby C was delivered via an emergency lower segment caesarean section under general anesthesia at a gestational age of 34weeks. His APGAR scores were 3^1 $4^5 5^{10}$ and he weighed 2.35kg at birth.
Baby C's mother is a 24 year old P_1 lady that was rushed to the emergency room with a penetrating abdominal injury of 90mins duration. She gave a history of a brawl with her partner who subsequently stabbed her with a knife multiple times and also kicked her all over the body. She had eviscerated omentum from her gravid abdomen as well as lacerations to her forehead and fingers. She had emergency exploratory laparotomy by the surgeons and gynecologists with the neonatologist at hand and was delivered of a live preterm baby. The neonatologist resuscitated him and he required bag and mask ventilation for about 15mins. Post resuscitation, a 5x3cm laceration on his left gluteus was noticed. This was sutured immediately.
Baby C was subsequently admitted into NICU and managed for perinatal asphyxia with stab wound injury. He received tetanus toxoid, antibiotics and other supportive care. Baby was discharged to the mother after 13 days by which time she had recuperated and was successfully breastfeeding.
We present this case to sensitize pediatricians towards the possible effects of IPV in pregnancy on the unborn child.

Keywords: Intimate partner violence, effects, unborn baby.

SP2

The prevalence of female circumcision among children presenting in a semi-urban tertiary teaching hospital in south west Nigeria

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Introduction: Female circumcision also referred to as female cutting or female genital mutilation (FGM) is being frowned at globally. It is the total or partial removal of the external female genitalia or injury to the female genital organ for non medical reason. This study was to determine the prevalence of FGM among children and identify the prevailing factors and immediate outcome of this practice with the aim of increasing social awareness thereby influencing positive behavior.
Methodology: The study was carried out among 200 consecutive new female children with age ≤ 15 years presenting at the out-patient and children emergency ward of Ekiti State University Teaching Hospital Ado Ekiti. Parental informed consent was obtained and a

research proforma was administered on each subject for their bio data, anthropometric, clinical data and questions to determine the contributing factors to FGM.
Results: 200 consecutive female children presenting to the children emergency and out-patient clinic of the hospital whose age were ≤ 15 years were recruited. The prevalence of female circumcision was 30%. Circumcision was done majorly during infancy (81.6%) and type 1 FGM was commonly done (70%). Fever, irritability, external genital ulcer and discharge were the immediate complications noted. 10% of them <5 years old had blood transfusion. Health workers are involved in 62.3% instances of FGM in this study. High parental level of formal education did not affect the prevalence positively.
Conclusion: FGM is an infringement on the physical and psychosexual integrity of the female child and associated with health hazard, it is still practiced irrespective of parents' level of education. Some health workers are involved in this act.

SP3
Child abuse in Nigeria: Nursing Intervention

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Background: Increasing incidence of Child Abuse has been reported in Nigeria, and indeed most of Africa. Although a lot has been written about child abuse in Nigeria, the role of the Nurse its intervention has been under-reported.
Objectives: The purpose of this paper is to review the various forms of Child Abuse and to use this framework to highlight the role of the Nurse in the prevention and management of this silent epidemic.
Methodology: Information was obtained from the literature using online and off line literature search.
Results: Despite the adoption of child's right by United Nations in 1990 as a strategy to ensure child's survival, protection and development it is still common to see neglected, abandoned and abused children in the streets of our country Nigeria. Factors that facilitate child abuse or maltreatment is built upon some ecological and child developmental theories which in turn are embedded in child rearing styles of our society. The nurse as a change agent uses her diverse professional knowledge/skills/ tool which is the nursing process to identify, assess, diagnose, plan, implement and evaluate the community, family and child to help in the prevention and treatment of this silent killer of our future generation called child abuse or child maltreatment.
Conclusions/Recommendation: It is concluded that the nursing profession has a role in the prevention and management of child abuse in Nigeria with the professional use of the Nursing Process. It is recommended that greater emphasis should be placed in the giving the nurse, especially the paediatric nurse the training and opportunity to manage this, and similar public health problems.

SP4
Maternal empowerment prevents kernicterus in Nigeria

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Background/Introduction: Acute bilirubin encephalopathy (ABE) is responsible for 6-10% of neonatal deaths in Nigeria. Most babies with severe ABE are already affected when admitted and therefore benefit little from treatment.
Aims/Objectives: To determine whether public and maternal awareness about jaundice will reduce the prevalence of ABE.
Methods: This prospective observational study documented the baseline prevalence of ABE in 5 collaborating centers (phase 1) and then evaluated the impact of education on the occurrence of severe hyperbilirubinemia and ABE. In phase 2, health providers, including traditional birth attendants, participated in jaundice awareness sessions. Educational posters were placed in antenatal clinics and postpartum wards; mothers were shown how to assess jaundice, taught to avoid substances known to cause hemolysis in G6PD deficient infants and when to seek help.
Results: In phase 1, 160 cases of ABE occurred in 1026 admissions for jaundice (15.6%). In phase 2, the incidence of ABE decreased to 11.1% and in 4 of 5 centers, from 13.4% to 6.6%. ABE occurred in 27 babies born to 162 uninstructed mothers. No ABE occurred in 181 babies whose mothers had received postpartum instruction about neonatal jaundice. ?2 43.61 P<.0001. Received Jaundice Instruction Postpartum No Jaundice Instruction Postpartum Normal 179 123 Suspect mild ABE 2 12 ABE 0 27 Total Cases 181 162
Conclusion & Recommendations: Providing mothers and health providers the skill to detect jaundice and guidance to avoid ABE empowered them to make appropriate decisions in their babies' care.
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SP5

Health care workers perception on counselling of patients/caregivers

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Introduction: Counselling of caregivers is an integral but overlooked aspect of patient management. Caregivers are often left groping in the dark becausethey are not informed about their children's diagnosis, treatment and prognosis. Various factors limit the ability of healthcare workers to provide adequate counselling to caregivers. These include forgetfulness, ignorance and communication problems. Healthcare workers need to be aware of these challenges to aid in wholistic patient care.
Aim: To assess the perception of healthcare workers on the counselling of patients/caregivers.
Methodology: Information was obtained using questionnaires distributed amongst participants of the 46thPaediatric Association of Nigeria conference at Abakaliki. These were analyzed using SPSS 20.
Results: There were 121 participants in the study. Of this number, 59.5% were females and 40.5% were males. All participants had heard about counselling, of which 8.3% had no formal training, 47.1% had received informal training and 47.1% had informal training on counselling. Most participants agreed that caregivers should be counselled, while only one person had a contrary view. The commonest barrier to effective counselling was lack of time (65.3%). Other reasons included poor counselling skills and inadequate counselling environment. While most participants (90.1%) felt all information should be shared, less than 5% felt that information given should be just enough to stop the caregiver from disturbing them with questions.
Conclusion: Counselling as part of patient care is universally accepted. However, several barriers exist to its effective practice. Opinions also vary on the quantity and quality of information to be shared during counselling.

SP6

Risk factors for child sexual abuse among adolescents in Rivers State

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Objective: To determine the risk factors for child sexual abuse among adolescents in secondary schools in Obio/ Akpor Local Government Area.
Study design: Descriptive cross-sectional study
Setting: School based survey using junior and senior secondary schools in Obio/Akpor LGA.
Method: Using a multi-staged sampling technique, 13 secondary schools were selected. One thousand five hundred and fifty eight students who assented to the study and whose parents gave a written consent were recruited. A structured pretested questionnaire was used to obtain relevant information.
Main outcome results: The subjects comprised of 739 males (47.4%) and 819 females (52.6%). The overall prevalence of child sexual abuse was 36.7%. Sexual abuse was more likely in girls (OR 2.715; 95% CI, 2.188- 3.370). Majority of the victims (69.2%) were abused within their early and mid-adolescent age group. Child sexual abuse is prevalent in all social classes but the prevalent rate is higher among the subjects from lower social class.
Conclusion: The prevalence of child sexual abuse among Adolescents in secondary school in Obio/Akpor LGA is high. Females are by far the most vulnerable. Young age and low social class are contributory factors.
Key words: Child sexual abuse, Adolescents