Abstracts of Proceedings

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Neonatology

NEO-001

A survey on the knowledge and practice of clinicians in the early administration of buccal colostrum for preterm infants

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Background: Preterm infants derive several benefits from early administration of buccal colostrum (EAC) but may be deprived of these benefits if Paediatricians and Neonatologists do not actively practice it in neonatal units.
Aim: To determine the knowledge and practice of EAC in the care of preterm infants among Paediatricians and Neonatologists in Nigeria.
Methods: A questionnaire-based descriptive study carried out at the 2022 annual scientific conference of the Nigerian Society of Neonatal Medicine (NISONM). The questionnaire assessed the knowledge, practice and challenges encountered in the EAC for preterm infants among study participants.
Results: Forty-one respondents completed the questionnaires with a M: F of 1:1.7. Thirty-three (80.5%) of the study participants had a good knowledge of EAC, while 29 (70.7%) practiced it their neonatal units. Out of the 33 participants who had good knowledge of EAC, 24 (72.7%)were currently working in the neonatal unit compared to 9 (27.3%) who were not currently working in a neonatal unit (p = 0.012). The majority (58%) of study participants who practiced EAC did so routinely and was administered mostly (55.2%) by the nurses in their neonatal units. Challenges encountered in the practice of EAC include mothers' unwillingness to express colostrum (48.8%) and inadequate neonatal staff (31.7%).
Conclusion: The knowledge of early administration of buccal colostrum among the study participants was good, though this did not translate into the same level of practice.

NEO-002

Admission hypothermia in preterm infants seen at a public tertiary hospital, south-western Nigeria

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Background: Hypothermia is associated with increased morbidity and mortality in neonates particularly in preterm infants who may need to be referred to tertiary centres to access care.
Aim: To document the incidence and characteristics of admission hypothermia in preterm infants seen in the neonatal unit of our hospital.
Methods: A retrospective study reviewing the 1-year clinical records of admissions into our neonatal unit. Core temperature is routinely taken for all babies at admission with a low-reading digital thermometer. Hypothermia was defined as temperature < 36.5^0C; and subclassified into mild (36.0-36.4^0C), moderate (32.0 – 36.0^0C) and severe (<32^0C). Statistical analysis was with Chi square analysis, student's t-test and Spearman correlation. p was set at 0.05.
Results: During the study period, 278 babies were admitted into our neonatal unit of which 87(31.3%) were preterm and 191(68.7%) were term. The incidence of admission hypothermia in preterm infants was 35.6% compared to term babies (15.2%)[p = 0.0003]. There was a higher incidence of hypothermia in outborn(62%) compared to inborn babies (52%)[p =0.71]. A strong positive correlation existed between the degree of hypothermia and both the GA and birthweights of the preterm infants; for mild hypothermia, p = 0.002 while for moderate hypothermia, p = 0.000. There was a higher mortality in preterms with hypothermia compared to those without hypothermia (p = 0.22).
Conclusion: A high incidence of admission hypothermia in preterm infants is reported in this study. Commencing immediate kangaroo mother care for preterm infants irrespective of the place of birth could help address this problem.

NEO-003

Assessment of the documentation of interventions during Neonatal Resuscitation in a Tertiary Hospital in Southern Nigeria

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Background and aims: Proper documentation of actions during neonatal resuscitation is important for quality improvement and medicolegal purposes. The study aimed at assessing the comprehensiveness of documentation of resuscitation interventions in the delivery room and not the accuracy or appropriateness of practices.
Objectives: were to determine: the proportion of infants who had written evidence of interventions such as chest compressions, positive pressure ventilation, and the effect of such interventions on cardiorespiratory function; the extent of documentation of other practices such as temperature regulation and oxygen delivery.
Methods: This was a retrospective cross-sectional study that involved assessment of medical records of babies who required neonatal resuscitation using a proforma containing a list of practices and interventions. Records which mentioned an intervention or desired information were assessed as documented while those without such information were assessed as not documented.
Results: The mean (SD) birth weight and mean (SD) gestational age of babies were 2.71 (±0.77) kg and 37.07 (±3.85) weeks respectively with a M:F ratio of 1.7:1. Twenty-five babies (35.7%) were delivered via vaginal delivery while 45 (64.3%) were born through caesarean section. The initial heart rate and oxygen saturation of babies prior to resuscitation was reported in 5 (7.1%) and 4 (5.7%) cases respectively. The duration between initiation of PPV and commencement or maintenance of spontaneous respiration was documented in 17(24.3%) cases while the indication for suctioning was stated in 18 (29.5%) records.
Conclusion: This study revealed that the documentation of key resuscitation practices was grossly inadequate and calls for quality improvement measures to be instituted.
Keywords: Documentation, resuscitation, positive pressure ventilation, chest compression
Abbreviation
PPV Positive pressure ventilation

NEO-004

Congenital Rubella Syndrome: A case report and a review of the literature

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Background: Congenital rubella syndrome (CRS), caused by rubella virus infection during pregnancy, remains a public health concern in developing countries. However, the rubella vaccine is not being given routinely and many children present with some features of the syndrome but may not get diagnosed with CRS due to a low level of suspicion. Hence, we are presenting a case report on CRS and a review of the literature to create awareness on its diagnosis and prevention.
Methods: We report the case of a 2year old girl who presented at the outpatient clinic of Obafemi Awolowo University Teaching Hospital with speech and hearing impairments and was confirmed to have CRS.
Results: She presented with delayed speech and hearing impairment since birth. Her conception was spontaneous, but her mother had fever and rash within the first trimester with spontaneous resolution of the rash within few days. The mother did not receive Measles Mumps Rubella (MMR) vaccine. The patient had a low birth weight of 1.74kg. She had patent ductus ligation surgical scar on the trunk and there were postural and gait abnormalities on the lower limbs. She was microcephalic, had left micro-ophthalmia, and faltering growth parameters. Brain MRI revealed white matter signal abnormality. Rubella IgG titre was greater than 400I.U/ml (negative < 10I.U/ml). Audiological evaluation revealed severe hearing loss and ophthalmic examination revealed salt and pepper retinitis.
Conclusions: This report highlights the need for mounting effective surveillance for CRS and considering the inclusion of rubella vaccine into the National Programme on Immunisation.

NEO-005

Evaluation of BiliDx, a point-of-care serum bilirubin (TSB) measurement device, in neonatal blood samples at the Lagos University Teaching Hospital (LUTH), Lagos, Nigeria

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Background: Neonatal jaundice, or increased bilirubin levels in blood, disproportionately impacts Nigeria due to a lack of affordable options for total serum bilirubin (TSB) measurement[1]. To address this need, we developed BiliDx, a low-cost system consisting of a spectrophotometric reader and a lateral flow cassette. BiliDx measures TSB only but must be accurate for blood samples with high hematocrit (HCT) and high levels of direct bilirubin (DB).

Methods: We evaluated BiliDx against two reference standard bilirubinometers. All consecutive newborns admitted for neonatal jaundice or receiving phototherapy at the neonatal wards and children's emergency centre of LUTH were recruited, after written informed parental consent. Bilirubin levels were measured when clinically indicated.

Results: We enrolled 475 neonates and analyzed 814 samples. The first 500 samples were selected to be in the training set, used to create an algorithm correlating reference standard TSB to absorbances at three wavelengths. The remaining 314 samples were used to evaluate the accuracy of the algorithm (validation set). 98.6% of BiliDx measurements in the validation set would have resulted in the same clinical decision as the reference standard. Bland-Altman analysis of BiliDx measurements of samples with HCT >60% showed good agreement compared to a reference standard. 100% of BiliDx measurements of samples with high DB levels (DB > 2 mg/dL or >20% of TSB) would have resulted in the same clinical decision as the reference standard.

Conclusions: BiliDx accurately measures TSB levels in blood samples, including those with high HCT and high DB values.

NEO-006

Incidence and Risk Factors for Retinopathy of Prematurity at a Tertiary Centre in Ile-Ife, Nigeria

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Background and Aims: Challenges with routine screening may have underestimated the incidence of ROP in Nigeria despite rising preterm births globally. Local studies have reported differences in incidence and risk factors for ROP. Since screening efforts at our facility commenced four years ago, it is necessary to report preliminary findings to shed light on the burden of ROP.

The aim is to determine the incidence and determinants of ROP among babies screened during the period under review. The study objectives were to: determine the incidence of ROP among gestational age and birth weight categories and to determine the risk factors associated with ROP.

Methodology: A retrospective study of 86 preterm babies screened from November 2018 to March 2020 based on the following criteria: gestational age ≤34 weeks or birth weight <2000g; late preterm infants (>34 but <37 weeks) with any risk factor for ROP. Initial assessment was done at 4 weeks after delivery with subsequent follow up visits at 2 weekly intervals.

Results: The incidence of ROP (any stage) and Type 1 ROP were 29.06% and 6.97% respectively. Risk factors for ROP were birth weight less than 1500g, RDS, prolonged use of CPAP and recurrent apnea after bivariate analysis. After Logistic regression, CPAP use for ≥ 5 days (OR=7.277; 95% CI: 1.698- 31.186; p=0.008) maintained its association with ROP while maternal corticosteroid use was protective of developing ROP (OR= 0.102; 95% CI: 0.017–0.588; *p*=0.011).

Conclusion: The study found prolonged use of CPAP as a major risk factor for the development of ROP.

Keywords Retinopathy, Prematurity, CPAP, Oxygen, RDS

Abbreviation

ROP Retinopathy of Prematurity

RDS Respiratory Distress Syndrome

CPAP Continuous Positive Airway Pressure

Neo-007: oral prostaglandin e1 derivative for maintaining systemic circulation in a neonate with duct-dependent congenital heart disease

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Background: In neonates with duct-dependent congenital heart disease (CHD), the use of prostaglandin E1 (PGE1) primarily in parenteral form to maintain the patency of the ductus arteriosus (DA) is lifesaving. In settings with limited resources where parenteral PGE1 is not routinely available, neonates with duct-dependent CHD are potentially fatal if surgical intervention is not immediately feasible. Oral PGE1 use has not been routinely investigated, and a comprehensive literature search revealed only two case reports and one case series of oral PGE1 use.
Case report: A Nigerian male infant was diagnosed with pulmonary atresia and a moderately sized patent ductus arteriosus on his fourth day of life (PDA). On the ninth day of life, he displayed signs of cardiogenic shock, and a repeat echocardiogram on the tenth day of life revealed that the ductus arteriosus had shrunk. Due to inaccessibility of parenteral prostaglandin E1, oral prostaglandin E1 derivative (misoprostol, Cytotec®) was administered every 6 hours via a feeding tube. The patient's cardiovascular condition steadily stabilized, and on the 21st day of life, echocardiography revealed a large PDA.
Conclusion: Oral prostaglandin E1 was effective in maintaining the patency of the ductus arteriosus and could be used as a palliative treatment in settings with limited resources.
Keywords: Patent ductus arteriosus, newborn, cyanotic heart disease

Neo-008

predictors of mortality in asphyxiated term neonates at the nkwen baptist hospital (nbh), Cameroon

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Background: Neonatal mortality rates in Cameroon are high at 28% from a recent national survey and birth asphyxia ranks among the three common causes. Most cases of asphyxia are preventable and if factors associated are identified this could decrease asphyxia related mortality, hence this study aimed to identify factors associated with mortality in term neonates with birth asphyxia.
Methodology: Retrospective cross-sectional study at the neonatology unit of the NBH in the North West Region of Cameroon that recruited term neonates admitted and managed for birth asphyxia while those with congenital malformations, prematurity were excluded.
Information obtained were maternal and obstetric profile, perinatal factors and neonatal characteristics. Data was analyzed with statistical significance set at p-value < 0.05.
Results: Case fatality of birth asphyxia was 7.5% as 9 neonates died from severe birth asphyxia out of 120 asphyxiated babies. Positive predictors associated with increased risk of mortality were APGAR score < 3, neonate with seizures and pallor. Preventive factors of mortality from asphyxia were: maternal age 20-35 years, regular antenatal care visits and in born neonates.
Conclusion: Birth asphyxia is associated with neonatal mortaility and positive predictors include young maternal age < 20 years, severe asphyxia, neonatal seizures and pallor.
Keywords: Birth asphyxia, predictors, mortality.

Neo-009

Prevalence of neonatal hyperbilirubinaemia and glucose-6-phosphate dehydrogenase status in aniocha north local government area of delta state, Nigeria

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Background: Glucose-6-Phosphate Dehydrogenase (G6PD) enzyme deficiency, a genetic disorder of public health concern, increases the risk of development of severe hyperbilirubinaemia in newborns and if not detected and managed early, could result in the development of kernicterus.
Aims: To determine G6PD status and the prevalence of neonatal hyperbilirubinaemia among newborns in Isselе-Azagba, a rural community in Aniocha North Local Government Area of Delta State.
Methods: Using a two-stage sampling technique, this cross-sectional, descriptive study evaluated 204 newborns aged 0-28 days from March to October 2021. We used the Oyedeji's classification to determine the socioeconomic status of families of these newborns.
G6PD status and total serum bilirubin were determined using Care Start G6PD Access -bio and NEO BIL PLUS bilirubin analyzer, respectively. Using the clinical practice guideline of the American Academy of Paediatrics, the total serum bilirubin values of newborns (0-6days) were categorized based on the risk assessment.
Frequencies, Means; SD, X^2, t tests and odds ratio were used for statistical analysis. The level of statistical significance was set at $p < 0.05$ at a 95% confidence interval.
Results: The prevalence of neonatal hyperbilirubinaemia and G6PD enzyme deficiency were 51.5% and 7.4% respectively. Having an older sibling who had neonatal jaundice posed a 4.6 times greater risk of neonatal hyperbilirubinaemia among participants. Of the 128 newborns 0-6 days, (5) 3.9% were within high and high intermediate risk zone.
Conclusion: The prevalence of G6PD enzyme deficiency was high to warrant initiation of newborn screening of G6PD status in the local government area.

NEO-010

The effect of phototherapy on serum calcium levels in term neonates with jaundice at the University College Hospital, Ibadan

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Background: Neonatal jaundice is common, usually due to unconjugated hyperbilirubinaemia and may result in mortality or long-term neurodisability. It is the commonest cause of readmission in the newborn period following postnatal discharge. Phototherapy is the primary treatment modality and is quite safe for most newborns, but has been associated with hypocalcaemia among other complications. This complication has not been well established among indigenous black population. This study determined the prevalence and severity of hypocalcaemia in newborns undergoing phototherapy.
Methods: One hundred and eleven term neonates treated with phototherapy for up to 48 hours, but not exchange blood transfusion were recruited and had their serum calcium levels estimated before, 48 hours into and at the end of phototherapy. All participants received continuous phototherapy using light emitting diodes or fluorescent units which emitted either blue or white light.
Results: There were sixty-eight (61.3%) males and 43 (38.7%) females with a mean TSB of 15.6mg/dl ± 1.7. There was a minimal but statistically significant decline in mean ±SD serum calcium level from 9.7±0.76mg/dl before phototherapy to 9.5±0.76mg/dl after 48 hours and 9.2 ±0.93 after 72 hours of phototherapy (p = 0.001). 59 neonates (53.2%) had a decline in their serum calcium levels after phototherapy of which 3 (2.7%) developed mild hypocalcaemia. White light and a shorter distance between baby and phototherapy were significantly associated with a decline in serum calcium (p=0.033 and p=0.011 respectively).
Conclusion: The prevalence of hypocalcaemia following phototherapy is low though it was associated with slight reduction in serum calcium level, therefore routine calcium supplementation during phototherapy is not recommended.

NEO-011

The microbial pattern of Neonatal sepsis in Massey street children's hospital, Lagos Island, Nigeria

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Introduction/Aim: Neonatal sepsis (NNS) is a major cause of morbidity and mortality in the neonates, caused by all types of organism mostly bacteria, acquired during labour, delivery or after birth.
We aim to describe the microbial pattern of bacterial isolates from neonates admitted in our facility from January-December 2021.
Methodology: This is a retrospective study. The culture result of neonates admitted into the facility for NNS from January to December 2021 was retrieved from the laboratory, documented and analysed.
Results: During the study period, 740 tests were done, comprising 586 (79.2%) blood cultures, 36 (4.9%) cerebrospinal fluid (CSF) culture, 33 (4.5%) urine cultures and 79 (10.6%) others (eye, ear, wound swabs and aspirates). Four hundred and twenty eight (428) cultures were positive. About 80.6% were positive blood culture results while 19.4% were positive culture results from CSF and other sites.
Staphylococcus aureus was isolated in 33.4% samples, Klebsiella in 28.7% Escherichia. coli 25.5%, Streptococcus 6.7%, Enterobacter 3% and Pseudomonas aeruginosa 2.5%
Conclusion: Staphylococcus is the leading cause of NNS in our study which differs from other centres in the country.[2, 3]Although preventing NNS is important, early presentation, diagnosis and treatment will improve outcome. This is premised on knowing the likely organism and commencing treatment (empirical) promptly as organisms vary across regions, hospitals and in same place over time.

NEO-012

Trends in Neonatal Mortality at the Federal medical center Asaba, Delta State

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Background: Neonatal mortality rates are high in Nigeria. In a bid to contribute to mortality reduction several packages and interventions have been introduced for neonatal care by the Federal Ministry of health and these have been implemented by our center over time.
We reviewed mortality over the past 4 years to identify the trends and their major contributors.
Methods: We reviewed the admission records, the nurses reports and the prospectively captured data of patients from January 2019 to October 2022.
Results: There were a total of 2,614 admissions and 328 deaths; death rate of 125.48 per thousand admissions. Mortality ranged from 137.748/00 in 2019 through to 170.73/1000 in 2022. Contribution of the Extreme Low Birth weight ranged from 24.04% in 2019 to 17.29% in 2022. The major causes of mortality were RDS, perinatal Asphyxia, Congenital Anomaly, Sepsis & severe Neonatal jaundice.
Conclusions: Neonatal mortality remains high and extreme low birth weight and their complications were major causes.

NEO-013

Neonatal morbidity among babies born to mothers with preeclampsia/eclampsia at uch, Ibadan

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Background: Pre-eclampsia/eclampsia (PE/E) are multisystemic complications in pregnancy known to be associated with significant maternal morbidity and mortality. It affects 4.6% of pregnancies globally but incidence is 7 times higher in developing than developed countries. In Nigeria, it is the largest contributor (28.3%) to maternal deaths.
This study aimed to describe the burden of PE/E at the University College Hospital, Ibadan, and the magnitude of associated neonatal morbidity.
Methods: A prospective study of all cases of PE/E seen in the labour ward of the hospital between September 2021 and August 2022 and their newborns. In addition, a retrospective review of the case records of all early neonatal admissions into the special care baby unit (SCBU) between January and August 2022 was conducted.
Results: There were 174 mothers with PE/E (12.6% of deliveries). Still birth rate was 137/1000 live births of which 84/1000 were FSB and 53/1000 were MSB. Preterm delivery rate was 65.9%, 54.1% were SGA, 8.5% had severe perinatal asphyxia (2% - HIE) and 29.8% of live births required admission. Common morbidities among the admitted neonates were early thrombocytopenia (55.6%), early leucopoenia (13.9%), Hypoglycaemia (19.6%), significant hypoproteinaemia (8.7%) and hypocalcaemia (10.8%). Neonatal mortality rate among newborns of PE/E mothers was 51.9/1000 live births. Infants of PE/E mothers constituted 25% of all early neonatal admissions into SCBU.
Conclusion: The burden of neonatal morbidity and mortality among infants of PE/E mothers is higher than those reported in the general population. The need to prevent PE/E to reduce this burden is highlighted.

NEO-014

The effect of fathers' participation in newborn care during hospitalisation on survival and attendance at follow-up clinics in a tertiary care facility in Southwest Nigeria

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Background: The traditional gender role of the father has been to provide protection and economic support. In recent times, the need to discourage this stereotype for improved child care has been receiving attention. This study examined the effect of fathers' participation in the care of admitted neonates on the duration of hospitalisation, neonatal survival and follow-up clinic attendance in UCH, Ibadan. Nigeria.
Methods: The was a prospective cohort study involving fathers whose babies were admitted into the outborn newborn unit. We compared the duration of hospitalisation, neonatal survival and follow-up clinic attendance rates between those whose fathers' provided kangaroo mothers' care for preterm babies, financial support, readiness to stand in for mother and any other support and those who did not.
Results: 188 had complete dataset and are presented. The median age of the babies at admission was 1 day (IQR: 1, 5). 51.0% families belonged to the upper social class. The mean gestational age of the babies at admission is 35.5±3.5 with 58.5% being term and 59.6% were males. The median duration of hospitalization was 6 days (IQR …..). The median and interquartile range (IQR) of babies who received father support at admission was 5 days (IQR: 3, 7) compared to 7 days (IQR: 4, 11) for those who did not (p=0.006). On bivariate analysis, a higher proportion of preterm survival and continued follow-up clinic attendance was observed among preterm whose fathers provided KMC but was not statistically significant (p=0.201).The father's financial support for the child's care, however, was significantly related to both neonatal survival and continued attendance at follow-up clinics (P =<0.001). The father's willingness to care for the infants while the mother rested was associated with neonatal survival (p=0.023) but not associated continued follow-up clinic attendance. On multiple logistic regression, newborns whose fathers provided financial support had increased (aOR: 27.8, 95% CI: 7.353-100.0) odds of survival and 6.15 (95% CI 2.205-17.182) odds for attendance at follow up clinic. Neonates whose fathers provided additional support were 20.8 times (95% CI, 4.6 - 100) more likely to attend clinic follow-up.
Conclusion: Fathers' active participation in newborn care significantly reduces length of hospital stay, increases chances of survival and follow-up clinic attendance. The need for active incorporation of family-centered care, with an emphasis on fathers' participation is highlighted

NEO-015

A Multicenter Study of Plasma Calcium, Phosphate, Magnesium And Vitamin D Among Preterm Neonates Breastfed Exclusively During The First Fourteen Weeks Of Life In Ogun State, Nigeria

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Background/Aims: The accretion and storage of calcium, phosphate, and magnesium occur in the third trimester of pregnancy. Even at high feeding volumes, breastmilk does not match the intrauterine rates of accretion. It is therefore conceivable that preterm infants may develop suboptimal levels of the micronutrients when exclusively breastfed. The study aimed to examine the pattern of plasma vitamin D, calcium, phosphate, and magnesium from birth to 14 weeks in preterm neonates exclusively breastfed.
Methods: It was a hospital-based longitudinal study carried out in three Level II neonatal units. The subjects were 121 singleton preterm neonate-mother pairs who met the selection criteria. Plasma levels of vitamin D, calcium, phosphate, magnesium, and alkaline phosphatase were assayed in them during the study period. Anthropometric measurements were taken at each contact at birth, six, 10 and 14 weeks.
Result: Plasma Vitamin D, magnesium, and calcium were low in about one-third of the mothers at birth. The micronutrient levels in the babies had positive correlations with maternal levels ($p < 0.001$). Phosphate levels were significantly lower at six weeks and 10 weeks in infants with suboptimal growth ($p < 0.05$). The proportion of babies with hypocalcaemia increased from 7.4% at birth to 39.7% at 14 weeks while low Vitamin D increased from 43.8% to 80.9% at 10 weeks.
Conclusion: Routine supplementation of vitamin D, calcium, and magnesium may be required in pregnant women. The babies require vitamin D supplementation and monitoring of plasma phosphate and calcium at 6-10 weeks, to determine the need for supplementation.

NEO-016

Cordblood Vitamin A Levels and Intraventricular Hemorrhage Outcomes in Preterm Infants

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Background and Aims: Intraventricular hemorrhage (IVH) is a major complication of preterm birth and large haemorrhages may yield significant future disability. Although multifactorial, prematurity and low birth weight are the most important risk factors for IVH. Furthermore, being "born too soon" affects the accretion of Vitamin A (VA) which is essential for normal brain development. We sought out to estimate VA nutrient levels among preterm newborn infants at birth and establish any relationship with IVH occurrence and grade severity.
Methods: Ninety infants were recruited over a 6-month period. VA levels were determined by the enzyme-linked immunosorbent assay using cord blood and IVH was assessed by transcranial ultrasound scan done on the 7th day of life. Data analysis was by the Statistical Package for the Social Sciences IBM (SPSS) version 21. $P < 0.05$ was considered statistically significant.
Results: The infants' median interquartile ranges for gestational age, birth weight, and cord blood VA levels were 32 weeks (4.25 weeks), 1580 g (650 g), and 0.31 µmol/L (0.19 µmol/L), respectively. The prevalence of VA deficiency, low VA, and sufficient VA was 67.8%, 25.5%, and 6.7%, respectively. IVH was found in 8 (9.20%) infants, with incidence rates of 5.70%, 2.30%, and 1.10% for Grades I, II, and III, respectively. Although statistically insignificant, the occurrence of IVH was only among infants with abnormal VA status at birth ($P = 0.65$). Conclusions:
Despite low median cord blood VA level of preterm infants in this study, there is no impact on IVH occurrence or grade severity. Further study with larger sample size is warranted.
Keywords: Cord blood Vitamin A, intraventricular hemorrhage, preterm

NEO-017

Breastfeeding Support and Maternal Mental Health in Tertiary Hospital Nurseries in Nigeria; A cross sectional study

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Background: Exclusive breastfeeding has been shown to benefit the short- and long-term health of both mother and child. It has also been linked to breastfeeding support and mothers' mental health.
Aim: To evaluate breastfeeding support and mental health status of nursing mothers at Tertiary Hospital Nurseries in Nigeria.
Methods: A cross-sectional study involving mother-baby pairs, all singleton pregnancies from 11 Tertiary Hospital Nurseries across 6 geopolitical zones in Nigeria. The WHO/UNICEF ten-step breastfeeding support package was used to evaluate breastfeeding support and the WHO self-reporting Questionnaire-20 to assess mental health of mothers.
Results: We enrolled 895 nursing mothers, mean age 29.9(6.2) years from six geopolitical zones in Nigeria across. About 835 (93.3%) mothers received antenatal care and 591(66.0%) babies were delivered at term. Four-hundred-and-twenty-seven mothers (47.7%) received optimal breastfeeding support. Family-centered care (22.1%), ward (31.2%) and antenatal clinics (32.4%) practical skill demonstration proffered the least breastfeeding support. Mental health disorders (MHD) were identified in 216(24.0%) of nursing mothers. There was a statistically significant association between the healthcare provider's practical breastfeeding skill demonstration (p=0.013) and the provision of storage facilities for breastmilk (p=0.021) and MHD. The study showed an inverse relationship between optimal breastfeeding support and MHD in the mothers. The northern zone provided better breastfeeding support and had fewer MHDs than the southern region of the country.
Conclusion: Breastfeeding support is inversely related to MHD in Nigerian nursing mothers. Family-centered care and practical breastfeeding support skills demonstration must be prioritised to improve and sustain breastfeeding.

NEO-050

Mothers' knowledge and perception of breast milk feeding on hospitalised babies in FMC Asaba

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Background: The burden of preterm admission and associated mortality is high at FMC Asaba. We have institutionalized feeding with expressed breast-milk in the neonatal unit to reduce neonatal mortality.
We tried to ascertain the knowledge and perceptions of mothers on the use of expressed breast milk (EBM) for the feeding of their hospitalized small and sick newborns.
Methods: We interviewed 15 randomly selected mothers of sick and small newborns who had experienced surrogacy donation and acceptance in the last eighteen months December 2020 to April 2022.
Seven thematic areas covering: Benefits of breast milk and breastfeeding, Use of colostrum, Knowledge of Surrogacy, Acceptability, Beliefs about surrogacy, Practice of surrogacy, Concerns and possibility of diseases transmission were explored qualitatively.
Results: In the FGD response,100 % had a good knowledge of the benefits of breast feeding and colostrum, 75% had a good knowledge of surrogacy, majority had poor acceptance to the act of surrogacy due to possibility of disease transmission, majority agreed on donating EBM because of benefits of breast feeding.
In their KII response; 8/15(53.3%) had given colostrum in the 1st hour of birth, 9/15(60%) established breastfeeding on the 1st day of life, 13/15(86.7%) had heard about it; 12/15(80%) from doctors, 2(20%) from media, 8/15(53.3%) had accepted surrogacy for their babies as recipients whilst 15/15(100%) agreed to donate their EBM in Empathy and 1(6.7%) would additionally donate because of the benefits of breastfeeding to babies.
Conclusion: Surrogacy was fostered in the unit, further education and media publicity would improve the knowledge and practice.

NEO-133

Willingness to donate or accept human breastmilk among pregnant women and mothers attending clinics in Ekiti State Southwest Nigeria

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Background: Mothers' own milk (MOM) remains the best option in infant nutrition, especially in the first six months of life and it has been emphasized as a powerful medicine tailored to the need of the infant. The unavailability of this option makes donor human milk (DHM) an acceptable alternative to MOM.
Methods: A cross-sectional prospective study was conducted among pregnant women and nursing mothers accessing care in healthcare facilities across Ekiti State. An interviewer-administered questionnaire was used to obtain information from consenting clients.
Results: As high as 78.4% of the participants had never heard about human milk banking (HMB). Just 27.9% of the participants were willing to donate their breastmilk while 84.8% will not agree to feed their baby with DHM. Most of them claim not to like the idea and that they don't have enough milk and spousal disapproval asreasons for their unwillingness to donate or use such milk. A few cited religious, cultural, and hygiene as other reasons for their decision. Previous counsellings on breastfeeding had no positive effect on their decision. The maternal educational level had no beneficial impact on their willingness to donate ($p<0.000$) or accept DHM ($p<0.003$).
Conclusion: The knowledge of women about HMB in Ekiti State is poor. The willingness to accept DHM or to donate breastmilk among the surveyed mothers is also very poor. There is a need for public enlightenment campaign about this infant feeding method if Nigeria hopes to adopt this infant feeding method in the future.

Cardiology

CAR-018
Relationship between serum uric acid and hypertension among secondary school adolescents in Ekiti state, Nigeria

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Background: With seemingly increasing trend of childhood hypertension, high serum uric acid (SUA) level might be an indicator of essential hypertension among adolescents.
Objective: To determine the SUA levels of hypertensive and randomly selected controls and find the association if any between SUA level and blood pressure (BP) among secondary school students in Ido-Osi Local Government Area (LGA).
Methodology: The study was a nested case-control study conducted among selected secondary school students in Ido-Osi LGA from June 2017 to March 2018. Of the 573 students screened for hypertension, SUA was assayed from 31 hypertensive students and an equal number of age and sex matched controls. Serum uric acid greater than 5.5mg/dl was taken as high. Statistical analysis included chi square and Pearson correlation.
Results: There was a positive correlation between SUA concentration and both systolic BP ($p < 0.013$) and diastolic BP ($p < 0.017$). The mean (SD) serum uric acid concentration of the hypertensive students [5.39 (2.08) mg/dl] was higher than that of the controls [4.24 (1.81) mg/dl]; $p = 0.023$. Hypertensive students with hyperuricaemia had higher mean systolic BP (mean ± SD 138.67 ± 14.81) than those with low uric acid (mean ± SD 128.68 ± 10.04); $p =0.037$.
Conclusion: The mean serum uric acid concentration of students with hypertension was higher than that of the non-hypertensive students and high SUA levels appear to more prominently affect systolic than diastolic pressures among the cohort of hypertensive students.

CAR-019
Post-measles Dilated Cardiomyopathy in an Eleven months old infant: A case report

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Introduction: Cardiomyopathy is a rare condition among children that carries substantial risk of morbidity and mortality. Dilated cardiomyopathy has been identified as the commonest form accounting for about 50% of cases with acute myocarditis causing 10-25% of the cases. Measles virus is a reported rare cause of myocarditis.
Case Report: We report a case of an eleven month old infant who presented with fever, cough and difficulty in breathing. Her symptoms developed following an episode of measles infection she had at about 7 months of age. Examination revealed displaced apex, 3rd heart sound with gallop rhythm and tender hepatomegaly. Chest X-ray showed cardiomegaly with left ventricular apex. Echocardiography showed dilated left atrial and left ventricular chambers, mitral regurgitation and severe left ventricular systolic dysfunction. She was placed on frusemide, captopril and digoxin with significant improvement, and was discharged home. She was seen once in the clinic, and was subsequently lost to follow-up, until 7 weeks later when she returned and succumbed to death.
Conclusion: Measles virus is a rare cause of myocarditis. A high index of suspicion is needed so as to minimize delay in diagnosis and increase chances of better outcome.
Key words: Measles, Dilated cardiomyopathy

CAR-020

Obesity related electrocardiographc abnormalities in adolescents and young adults: pathology or a variant of normal

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Background: Obesity and overweight are defined by WHO as abnormal fat deposit that potentially presents a risk to health, and worldwide has assumed an alarming epidemic dimension. Cardiovascular (CVD) risks among other health challenges is associated with obesity in childhood and adolescence like in adults, with onset of adult cardiovascular diseases tracked to childhood. A number of cardiovascular abnormalities found on electrocardiograph (ECG) and designated obesity related from adult studies, are equally seen in normal weight individuals and are reversible with weight loss.
Aim: The study aims to use electroencephalographs (ECGs) to screen for possible cardiovascular abnormalities, and relative frequencies in obese adolescents and young adults, comparing the finding with normal and overweight adolescents and young adults.
Methods: After basic health screening following a multistaged stratified random sampling method, 172apparentlyhealthyparticipants were divided into normal, overweight and obese BMI. Their anthropometry and ECG done and analysed.
Results: ECG abnormalities were seen across board with an overall prevalence of 43.02%, while each BMI class showed corresponding prevalence of 53.6%, 32.7% and 42.6% for normal, overweight and the obese group respectively. Results from the study were statistically significant at p value < 0.05. There were significant increase in p-wave duration (p= 0.01), prolonged PR interval (p=0.025) and T wave flattening in precordial and limb leads (p=0.017). There were age related differences for pulse rate, right ventricular hypertrophy and ST elevation in early adolescents (10-14years) at p <0.001 and in the P-axis for late adolescents (19-24 years) at p <0.005. Significant gender differences seen for left ventricular hypertrophy and right axis deviation of the p-wave in the males. Other important abnormalities designated obesity related ECG findings were seen in other BMI class without significance, while other notable abnormalities were seen, but not statistically significant.
Conclusion: Though abnormalities designated obesity related ECGs were seen, they were more of normal physiologic variants of ECG abnormalities and were seen across all BMI

CAR-021

Intravascular Femoral Catheter Fracture in a 3-year -old with Fallot's Tetralogy

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Background: The era of rapidly advancing technology has heralded an increase in the use of central lines for diagnostic and therapeutic procedures in caring for critically ill children and an attendant surge in the incidence of catheter-related complications. Cannulation of the femoral vein for rapid fluid replacement while resuscitating children with high output fluid losses is lifesaving but may be complicated by an intravascular fracture of the femoral catheter, this may be life-threatening if the catheter migrates or embolizes. An urgent surgical or percutaneous retrieval is indicated to prevent embolization.
Methods: We report the case of a 4-year-old girl with dextrocardia and tetralogy of Fallot who had frequent bouts of large-volume watery stools and developed hypovolemic shock. Pulse volume was small with collapsed peripheral veins on examination, necessitating a femoral venous catheter insertion for rapid fluid replacement. The catheter fractured into her left femoral vein following repeated flexion of her hip joints which was her usual comfortable posture but was retrieved by surgical intervention before it could migrate.
Conclusion: The use of central lines and its attendant complications have increased in the care of critically ill children. Intravascular catheter fracture and embolization are life-threatening complications that require urgent surgical or percutaneous removal.

CAR-022

Chest pain in a Paediatric Cardiology Outpatient Clinic at University College Hospital, Ibadan

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Background/Aim: Many caregivers experience anxiety when their children experience chest pain, which is one of the reasons for Paediatric and Paediatric cardiology consultations.
Several reviews have documented that most causes of chest pain in this age group are non-severe. However, there is a scarcity of data on chest pain in children in this setting.
This is an audit of children who visited our facility with chest pain over a four-year period.
Methods: This study was a retrospective review of patients who presented to the paediatric cardiology clinic with complaints of chest pain between January 2019 and November 2022. The records of the children were retrieved and information on the biodata was obtained. The characteristics of the pain and associated symptoms

were reviewed and documented. The results of investigations such as a chest X-ray, electrocardiography, and echocardiography were recorded.
Results: The records of forty children were reviewed. There were 27 males (67.5%). The mean age was 11.5 ± 2.3 years. The mean weight was 44.1± 13.5kg, with four children weighing greater than 60kg. Clinical findings were not remarkable in all the children. Chest radiograph was normal in all the children. Electrocardiogram was normal in 34 (85%) of the children. No evidence of myocardial ischaemia in any of the children.
Conclusion: Chest pain is often seen in adolescents and is not associated with myocardial ischaemia or any other severe cardiac anomaly. The ECG and echocardiography results were mostly normal, confirming these findings.

CAR-023
Association between anthropometric indices and electrocardiographic variables among healthy black adolescents

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Introduction: Electrocardiography (ECG) remains vital in the detection of cardiovascular diseases. Certain changes in electrocardiogram (ECG) can be associated with an increased risk of adverse cardiac events. Correlations between anthropometric indices and ECG variables are controversial and remain to be fully elucidated among healthy black adolescents.
Objective: To determine associations between height, weight, body mass index (BMI) and ECG variables among Nigerian adolescents.
Methods: Multistage sampling was used to recruit 1,194 healthy adolescents in the Ido-Osi Local Government Area (LGA) of Ekiti State, Nigeria for this cross-sectional descriptive study. Anthropometric measurements were taken and 12-lead ECG was obtained with the Zoncare ZQ 1203-G 3-channel ECG machine and interpreted manually. Correlations between ECG variables and anthropometric indices were determined and associations sub-analyzed using multiple linear regression.
Results: Participants' male-to-female ratio was 1: 1.3 with a mean (SD) age of 14.3 (2.0) years. Height, weight and BMI positively correlated with P wave duration, P wave axis, QRS duration, QT and RR intervals but negatively correlated with heart rate, P, R, S and T wave amplitudes in the precordial leads. Furthermore, weight and BMI positively correlated with PR interval, whereas BMI negatively correlated with the QRS axis. Weight was a negative predictor of heart rate (Sb = -0.297, p = 0.044). BMI positively predicted the corrected QT interval [QTc] (Sb =0.194, p = 0.03) and was a negative predictor of the wave amplitudes. Height, weight and BMI were negative predictors of the T wave axis and P wave duration.
Conclusion: Relationships between anthropometric indices and ECG variables should be considered in interpreting ECG among black adolescent population.
Key Words: Blacks, Adolescent, Anthropometric indices, ECG, Nigerians

CAR-043
A case report on the conservative management of vancomycin overdose in a toddler after cardiac surgery in UCH, Ibadan

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Background: Medication administration errors (MAE) are a worldwide issue, with antibiotics being a common culprit. The true prevalence of vancomycin usage in clinical settings in Ibadan and Nigeria is not known due to lack of comprehensive antibiotic surveillance system. Most reported vancomycin side effects occur because the patient's renal function declines while on treatment.
Case: We present a 13-month old female with syndromic facies, in keeping with Down syndrome, who had total repair of ventricular septal defect and ligation of patent ductus arteriosus. She had features of post operative sepsis. She was managed with intravenous ceftriaxone and this was changed to piperacillin/tazobactam and amikacin with improvement in clinical and laboratory parameters. She was then transferred from PICU to the ward. She had erroneous overdose of intravenous vancomycin as push in less than five minutes. She was not on Vancomycin. Drug level of vancomycin could not be monitored as the facility is not readily available and it is quite expensive. There was no adverse clinical evidence of vancomycin overdose. Her renal function remained normal. She was managed conservatively with adequate hydration till discharge and she remained well as at the last clinic review two months post discharge.
Conclusion: Medication administration errors are common. Many factors are responsible for these errors. Training and re-training of health workers, clinical governance, effective use of clinical computer systems, and improving safety systems within the hospital can help to reduce medication administration errors

Dermatology

DER-024
Atopic and Nonatopic Eczemas in the Pediatric-Dermatology Outpatient Clinic: A retrospective study

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Background: Eczemas constitute a diverse group of pruritic inflammatory dermatoses characterized by oozing, scaling and/or crusting often associated with significant negative impact on quality of life. Atopic Dermatitis (AD) is the commonest and most frequently researched eczema. Other forms of eczemas are less well studied particularly in the pediatric population.
Aims and Objectives: This study determined the frequency and clinical characteristics of eczematous dermatoses among ambulatory pediatric dermatology patients.
Methods: A 6-year retrospective study was conducted among pediatric patients attending the Dermatology Clinic of the Obafemi Awolowo University Teaching Hospitals Complex between April 2015 and December,2021.
Results: Three hundred and thirty-three children comprising of 179 (53.5%) males and 154(46.2%) females aged 1month to 15 years presented with skin complaints during the study period. Eczemas were diagnosed in 29.1% of patients and occurred significantly more frequently in children under the age of five compared with older children (p=0.00).
Atopic dermatitis(54.6%), seborrheic dermatitis(18.6%) and contact dermatitis(8.2%) where the three most frequent eczemas. AD was most frequent in the under-five age group (61.4%) while nonatopic eczemas were more frequent in the over-five age group(55.0%). Exogenous eczemas comprising predominantly of irritant contact dermatitis(62.5%) occurred 3 times more frequently in females. Cutaneous complications were common (23.7%) and were mostly due to skin infections (18.2%). A diagnosis of eczema, was associated with a 3-fold higher incidence of co-morbid dermatoses (p=0.00).
Conclusion: Childhood eczemas are a major cause of dermatology consultations particularly in children below five years. The high burden of co-morbid dermatoses in pediatric eczema patients is a cause for concern as they may serve as threats to successful control of eczema symptoms.

DER-025
Skin disease profile of children attending the paediatric dermatology clinic at the university of Port Harcourt teaching hospital, Port Harcort

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Background and Aim: The skin is the largest organ of the human body accounting for 15% of the total body weight. Skin diseases are common in children and constitute an important cause of morbidity in affected children . Unidentified and untreated skin diseases may result in physical pain and discomfort, disfigurement, loss of school attendance and negative psychosocial consequences. This study aims at describing the prevalence and pattern of skin diseases seen in our practice.
Methods: This was a retrospective cross sectional study involving children aged one week to 18 years seen at the Paediatric dermatology clinic in UPTH over an 18 month period (January 2021 – June 2022).
Results: Four hundred and nine (409) children were seen within the period under review. The mean age of the children was 6.4 ± 1.59 years. The study subjects consisted of 219 males and 190 females giving a male to female ratio of 1.2:1. With regards to the categories of skin diseases encountered, inflammatory (48.7%) and infective (24%) diseases were predominant. Concerning specific skin diseases, the most commonly seen were Atopic dermatitis (24.9 %), Scabies (5.3%), Papular urticaria (5.3%), Acne vulgaris (5.1%) and Dermatophytosis (4.2%).
Conclusion: Inflammatory and infective lesions were the most common skin diseases seen in our practice. Early and appropriate treatment should be offered to affected children to limit morbidity.

DER-026
Papular urticaria: experience at a paediatric dermatology clinic in Southern Nigeria

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Background and Aim: Papular urticaria is a chronic dermatological disorder characterized by recurrent papular skin lesions resulting from hypersensitivity reaction to the bites of insects such as mosquitoes, sandflies, bedbugs etc. It is associated with intense pruritus which may result in secondary bacterial infection, scarring and post inflammatory hyperpigmentation. This study describes the prevalence of Papular urticaria in our practice as well as the clinico-demographic features of affected children.
Methods: A retrospective cross-sectional study was conducted. The medical case files of all children diagnosed of Papular Urticaria at the Paediatric Dermatology clinic in UPTH over an 18 month period (January 2021 – June 2022) were retrieved and reviewed.

Results: Papular Urticaria was diagnosed in 22 patients giving a prevalence rate of 5.4%. The mean age of affected children was 7.5± 1.3 years with a male to female ratio of 0.7:1. The hallmark clinical characteristics were papular lesions at the extremities and intense pruritus. Most of the affected children (82%) had post inflammatory hyperpigmentation from previous episodes. Management approach included counseling on skin protective measures (100%), mild topical corticosteroids (91%) and oral antihistamines (91%).
Conclusion: Papular Urticaria causes distressing pruritus in affected children and can lead to scarring and post inflammatory hyperpigmentation. Affected children should be offered necessary treatment and parents or caregivers counseled on skin protective measures to limit exposures to the offending insect bites.

DER-027
Lichen planus: an uncommon and challenging skin disease in children

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Background and Aim: Lichen Planus (LP) is a chronic, inflammatory disease of the skin and mucous membrane that is uncommon in children. The exact aetiology remains unknown but an immune attack on the skin cells by cytotoxic T cells has been postulated. The aim of this study was to describe the clinico-pathological characteristics and management challenges among children seen with LP in our practice.
Methods: This study was a retrospective review of the medical records of children diagnosed with LP at the Paediatric Dermatology clinic of UPTH over an 18 month period (January 2021 – June 2022). Diagnosis was based on clinical findings, Dermoscopic features and histological confirmation.
Results: Among the 409 children seen in the clinic within the period under review, LP was disgnosed in five patients giving a prevalence rate of 1.2%. The mean age of affected children was 8.8± 1.6 years. The male to female ratio was 1.5:1. The most common form of LP seen was the eruptive form (60%). Wickham striae was demonstrated in 60% of the patients. The most common histologic features seen were hyperkeratosis, acanthosis and hypergranulosis as well as bandlike lymphoplasmocytic infiltration of the dermo-epidermal junction. The most common treatment modalities offered included topical corticosteroids (100%), oral antihistamine (100%), oral metronidazole (80%) and topical tacrolimus 0.1% (40%). Two children achieved disease remission by 6 months while others had a waxing and waning course.
Conclusion: LP is an uncommon skin diease in children. Most affected children have a waxing and waning disease course.

DER-028
Demographic and clinical characteristics of children with atopic dermatitis at the University of Port Harcourt teaching hospital, Port Harcort

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Background and Aim: Atopic Dermatitis (AD) is the most common chronic relapsing skin disease seen in childhood. It is a complex genetic disorder characterized by defective skin barrier, reduced skin innate immunity and polarized adaptive immune response to environmental allergens and microbes leading to chronic skin inflammation. The aim of this study was to describe the demographic and clinical characteristics of children with AD at UPTH.
Methods: This was a retrospective cross sectional study of children diagnosed of AD at the Paediatric Dermatology clinic in UPTH over an 18 month period (January 2021 – June 2022).
Results: The prevalence of AD among the 409 children seen in the clinic within the period under review was 24.9%. The mean age of affected children was 2.6 ± 0.8 years and the male to female ratio was 1.2:1. Diagnosis of AD was based on the presence of the characteristic skin lesions and pruritus. The most commonly affected body parts were the cubital fossa (88%), popliteal fossa (76%), neck folds (60%), trunk (34%) and face (22%). Generalized lesion was found in 5% of the patients. Treatment options offered included emollients (100%), oral antihistamines (98%), topical corticosteroids (86%), topical tacrolimus (8%) as well as counseling on skin care routine. A relapsing disease course was seen in 18% of the patients.
Conclusion: The prevalence of AD in our practice is high. Appropriate treatment helps to limit morbidity associated with the condition.

DER-135
Demographic and clinical characteristics of children with atopic dermatitis at the university of Port Harcourt teaching hospital, Port Harcort

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Background and Aim: Atopic Dermatitis (AD) is the most common chronic relapsing skin disease seen in childhood. It is a complex genetic disorder characterized by defective skin barrier, reduced skin innate immunity and polarized adaptive immune response to environmental allergens and microbes leading to chronic skin inflammation. The aim of this study was to describe the demographic and clinical characteristics of children with AD at UPTH.
Methods: This was a retrospective cross sectional study of children diagnosed of AD at the Paediatric Dermatology clinic in UPTH over an 18 month period (January

2021 – June 2022).
Results: The prevalence of AD among the 409 children seen in the clinic within the period under review was 24.9%. The mean age of affected children was 2.6 ± 0.8 years and the male to female ratio was 1.2:1. Diagnosis of AD was based on the presence of the characteristic skin lesions and pruritus. The most commonly affected body parts were the cubital fossa (88%), popliteal fossa (76%), neck folds (60%), trunk (34%) and face (22%). Generalized lesion was found in 5% of the patients. Treatment options offered included emollients (100%), oral antihistamines (98%), topical corticosteroids (86%), topical tacrolimus (8%) as well as counseling on skin care routine. A relapsing disease course was seen in 18% of the patients.
Conclusion: The prevalence of AD in our practice is high. Appropriate treatment helps to limit morbidity associated with the condition.

Endocrinology

END-029
Vitamin D status of parturient Nigerian mothers and cord blood of their term babies at the University College Hospital, Ibadan

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Background: Vitamin D deficiency during pregnancy is on the increase globally including tropical countries, with associated adverse maternal and neonatal health consequences. Maternal vitamin D status is an important determinant of the newborn's vitamin D status. This study determined the vitamin D status of Nigerian mothers and their term babies at birth and some of the factors affecting them at the University College Hospital, (UCH) Ibadan.
Methods: Blood samples were obtained from 128 mothers during labour and their babies at birth, for assay of vitamin D levels using the Enzyme-Linked Immunosorbent Assay (ELISA) method. Mothers and neonates were classified as vitamin D deficient, insufficient and sufficient with levels of ≤20ng/ml, 21ng/ml-29ng/ml and >30ng/ml respectively. Chi-Square test was used for comparisons and logistic regression was used to examine associated factors.
Results: The mean (SD) maternal and newborn serum vitamin D levels were 18.3ng/ml (±6.9ng/ml) and 20.5ng/ml (±8.6ng/ml) respectively. Seventy-six (59.4%) mothers and 64 (50%) babies were deficient, 35 (27.3%) mothers and 34 (26.6%) babies were insufficient while 17 (13.3%) mothers and 30 (23.4%) babies were sufficient. Living in storey buildings, sun exposure index ≤ 8 hours per week and lack of micronutrient supplement were associated with higher odds of deficiency. The odds of deficiency in newborns of deficient mothers was 6.12 (95% CI = 2.78, 13.48). Vitamin D status of mothers had a statistically significant relationship with maternal diet (milk, egg, fatty fish) in pregnancy.
Conclusion: Prevalence of vitamin D deficiency in parturient mothers and newborns in the study population was high and influenced by some modifiable factors which should be addressed during preconceptional and antenatal counselling.

END-030
Thyroid stimulating hormone levels in apparently healthy term neonates at birth and 72-hours of life in Abakaliki, Nigeria

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Background/Aims: Thyroid hormones (THs), with their pleotropic effects, are essential for survival and optimal functioning of the human body. Reduced serum levels of TH in neonates is usually signified by high levels of thyroid stimulating hormones (TSH). Secretions of both Thyrotrop in Releasing Hormone (TRH) from the hypothalamus and TSH from the anterior pituitary gland are negatively regulated by TH. Detection of high levels of thyroid stimulating hormones (TSH) in neonates and newborns may signify reduced levels of thyroid hormones in the body. Studying the thyroid stimulating hormone levels in apparently healthy term neonates at birth and 72 hours is imperative for an early detection of congenital hypothyroidism and for defining the timing for sample collection for screening for congenital hypothyroidism.
The study is aimed at determining the mean thyroid stimulating hormone levels in apparently healthy term neonates at birth and 72 hours of life in Abakaliki.
Methodology: This was a descriptive cross sectional study conducted over a six-month period in Abakaliki. One hundred and sixty-eight consecutively delivered apparently healthy term neonates had serum assays of their Thyroid Stimulating Hormone (TSH) at birth and 72 hours of life. Thyroid stimulating hormone was analyzed using ultra-sensitive Enzyme-Linked Immunosorbent Assay.
Data obtained were analysed using International Business Machine-Statistical Package for Social Sciences (IBM-SPSS version 23.0. Armonk, NY: IBM Corp.) The normality of the distribution of data was determined using Kolmogorov-Smirnov test and it was found that TSH levels at birth and 72 hours were non-normally distributed hence, described using median and interquartile range while the normally distributed anthropometric variables were described using mean and standard deviation.

Comparison between the thyroid stimulating hormone levels at birth and 72 hours was done using Wilcoxon-rank test. All tests of significance were 2-tailed at 95% confidence interval and p was considered significant if it was < 0.05.

Results: The cord blood median (interquartile range) serum hormone concentrations at birth and venous blood at 72 hours respectively were as follows: TSH, 6.46 (4.07)µIU/ml, 2.04 (5.29) µIU/ml. The 72 hours median serum TSH at 72 hours was significantly lower than the cord blood levels; ($p < 0.001$).

About 32 (19.0%) subjects at birth and 12 (7.2%) subjects at 72 hours had TSH levels exceeding 10 µIU/ml.

Conclusion: There was significantly higher levels of TSH at birth compared to 72 hours of life ($p>0.001$). At birth, 32 (19.0%)and at 72 hours 12 (7.2%) cases of primary hypothyroidism were detected.

END-031

The Morbidly Obese Adolescent: Causes, Choices and Consequences

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Introduction: In recent times, obesity has been established as a growing public health concern as its prevalence is on the increase. This trend is worrisome as obesity can adversely affect nearly every organ system causing serious complications. In this case report, a morbidly obese female adolescent with complications is presented.

Case report: OW is a 10-year-old female adolescent who was seen at the children's out- patient clinic with complaints of being large for age since birth. The antenatal history was normal. Birth weight was 3.8kg. She was not exclusively breastfed as lactation was inadequate.

Her diet consisted mainly of carbohydrates and fatty meals. Her mother owns a fast-food outlet where OW spends her after-school hours. She did not participate in any form of exercise.

At presentation, OW was morbidly obese with acanthosis nigricans over the neck and axillae. Her height was 148.4cm (90-95th centile). Weight was 100kg (> 95th centile). BMI was 45.6kg/m^2(> 95th centile). Blood pressure was 130/90 mmHg (>95th centile). An assessment of morbid obesity complicated by hypertension was made. Investigations included HbA1C-6.7%, Triglycerides 179mg/dl. Abdominal Ultrasound revealed grade 2 hepatic steatosis.

Her management plan included lifestyle modifications viz daily exercise, each meal to contain the 5 food groups and portion control. At the follow up visit, weight had decreased to 97 kg, blood pressure to 100/80 mmHg.

Conclusion: This case highlights the danger of obesity in adolescents and its complications. There is therefore the need for public awareness on the causes and negative consequences of this trend.

END-032

Sprengel deformity misdiagnosed as turner syndrome

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Background: Webbed neck and short statue is often associated with Turner syndrome in female patients but other differentials should be considered if webbed neck is associated with normal stature and positive family history

Case report: We present a 10yr old girl who presented at our out-patient department with few days history of nasal discharge and cough. She was found to have webbed neck on physical examination, on account of which she was referred to paediatric endocrine clinic with a presumptive diagnosis of Turner's syndrome. Her weight and height were at the 75th and 50th percentile respectively. There was no radio-femoral delay, and her blood pressure was less than the 50th percentile for her age and height. There was also elevated right shoulder with no limitations of movement. Abdomino-pelvic ultrasound, karyotyping and hormonal studies were within normal limits and chest x-ray revealed Sprengel deformity of the right shoulder. Her mother had a milder form of short neck (not webbed) and asymmetric shoulders.

Conclusion: Not all patients with short webbed neck have Turner syndrome.

Key Words: Sprengel deformity, Turner's Syndrome, webbed neck, misdiagnosis.

END-033

Spectrum of endocrinology cases seen in adolescents at a tertiary specialist clinic in South western Nigeria (Oral Presentation)

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Background: Adolescence is a difficult transitional period between childhood and adulthood, frequently marked by physical and psychological changes that have an impact on a child's health and quality of life. Early and appropriate review is vital.

Aim and objectives: We described the spectrum of endocrine problems adolescent patients present with to the Endocrinology and Genetics clinic at the University College Hospital Ibadan.

Methods: This was a retrospective study involving data collected for adolescents attending endocrinology/ genetic clinic between October 2021 and October 2022.

Results : Of the 296 patients reviewed over the study

period; 86 (29.05%) were adolescents. There was no gender disparity among the adolescent (M: F=1:1). The presenting conditions were: Overweight and Obesity (19.77%), Type 1 Diabetes Mellitus (13.95%), Pubertal disorders (13.95%), Congenital Disorders (11.63%), Thyroid disorders (10.47%). Difference in sex development (6.98%), Bone disorders (3.49%), Short stature (5.81%), other conditions (13.55%). Age variations were seen at presentation with females presenting later than the males. Treatment thought out of pocket was commenced in most cases.
Conclusion : Adolescents in Nigerian tertiary hospitals are at risk of developing various endocrine disorders. Physicians who care for this subpopulation must be knowledgeable about these diseases in order to improve early diagnosis and age-appropriate interventions to prevent complications that may occur later in life.

END-034
Scurvy mimicking multifocal osteomyelitis

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Introduction: Scurvy is often thought of as being only historically relevant and rarely seen in present-day practice due to improvements in nutritional and socioeconomic status in most populations. Several reports in the literature indicate that scurvy mimics conditions such as tumours, osteomyelitis, autoimmune diseases, and even disseminated intravascular coagulopathy.
Objective: We report a case of bilateral painful leg swellings in a 3-year-old who was initially diagnosed with multifocal osteomyelitis. He had extremely low serum vitamin C assay levels and responded remarkably well to ascorbic acid therapy
Case report: A 3-year-old unvaccinated malnourished boy from a low socioeconomic setting presented with a 4-week history of insidious onset of limping and lower limb pains, a high-grade intermittent fever, and progressive lower limb swellings. He developed the inability to walk and pallor 2-weeks prior to the presentation. His initial response to broad-spectrum antibiotics was poor and incision and drainage of the swellings revealed massive blood clots. Based on X-ray features, a diagnosis of scurvy with complications of severe anaemia secondary to massive subperiosteal and intramuscular haematoma was entertained. This was confirmed by a serum vitamin C assay of < 0.5mg/L. With the commencement of high doses of oral ascorbic acid, the pain and swellings of both lower limbs resolved completely within 12 days with improved movement.
Conclusion: A high index of suspicion is required to make a diagnosis, and the classical X-ray features may be useful to prevent unnecessary procedures and expensive investigations. Children with poor nutritional history should be readily supplemented with ascorbic acid.

END-035
Pattern of presentation of paediatric endocrine disorders in a Nigerian tertiary institution: an eleven-year survey

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Introduction: There is a need to generate epidemiological data regarding paediatric endocrine disorders (PEDs) in sub-Saharan Africa, since little attention has been given endocrine disorders in children in this sub-region over the years.
Objective: To determine the socio-demographic characteristics of children with endocrine disorders in a paediatric endocrinology clinic, as well as their pattern of presentation.
Methods: This study included paediatric patients who presented to the endocrine clinic over an 11-year period. Data of patients seen during the study period were retrieved from the case notes and were analyzed using SPSS version 23.
Results: A total of 188 patients were seen over the study period, with an almost equal male: female ratio. Five of the patients (2.7%) could not be classified into any gender because of genital ambiguity. The age of the patients at diagnosis ranged from 0 to 18 years of age with a median age of 9.03 (9.94) years. All the 14 subdivisions of paediatric endocrine disorders were documented among the patients, with thyroid disorders ranking highest among the PEDs seen. Type 1 diabetes mellitus, obesity and pubertal disorders were the most prevalent PEDs (in descending order), after thyroid disorders. Congenital hypothyroidism accounted for 14.3% of patients with thyroid disorders.
Conclusion: Thyroid disorders, type 1 diabetes mellitus and obesity rank highest among the PEDs in our locality. There is the need to create awareness among healthcare workers and the general public regarding these disorders, in order to improve appropriate and timely presentation of patients to the clinic.

END-036
Obesity to grave's disease: endocrine disorders of a child with down syndrome

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Background: Endocrine disorders are a common phenomenon in children with Down syndrome. Of these, thyroid dysfunctions are the most common. These dysfunctions range from congenital hypothyroidism and subclinical hypothyroidism to hyperthyroidism. Hyperthyroidism in Down syndrome typically results from an autoimmune disease.
Case report: We present a 10-year-old girl with clinical diagnosis of Down syndrome who initially had obesity {Body mass index (BMI): 27.5 Kg/m^2; >95^{th} percentile using CDC BMI chart for girls with Down's syndrome} and was normothyroid during earlier clinic visits. She defaulted from clinic visits afterwards. Within a year, she presented with weight loss and neck swelling. Her BMI dropped to 15.5Kg/m^2. Thyroid function test was in keeping with hyperthyroidism {thyroid stimulating hormone (TSH): 0.0 mIU/mL (0.4 – 4.0), fT4: 19.8 mg/dL (5 – 13), fT4: 7.2ng/Ml (0.6 – 2.0)}. A Neck ultrasound scan revealed a diffuse goitre. Thyroid stimulating immunoglobulin was elevated: 86.9IU/L (<0.10), suggesting Grave's disease. Treatment was commenced with Carbimazole 15mg/day. The patient's thyroxine levels are now normal with a lag in TSH.
Conclusion: The report emphasizes the need to follow suggested thyroid screening recommendations for patients with Down syndrome. It is suggested that TSH is checked at birth, 6 and 12 months, and thereafter yearly.

END-037
New onset obesity and overweight in children following SARS-CoV-2 lockdown in a Paediatric outreach clinic in Lagos, Nigeria

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Background/Aim: Studies have demonstrated an increase in the rate of overweight and obesity following the SAR-CoV-2 lockdown. We did not find any Nigerian study on prevalence of obesity and overweight in children after the lockdown. We set out to determine if there was an increase in the prevalence of obesity and overweight after SAR-CoV-2 Lockdown in children seen in our clinic.
Methods: We conducted a retrospective review of prospectively collected Body Mass Index (BMI) of children seen at one of our outreach clinics in Lagos, Nigeria. The BMI were determined and classified using standard WHO/CDC criteria with multiple visits and visits with incomplete BMI data excluded from analysis.
Result: the children that visited at least once were 171 (pre-lockdown) and 496 (post-lockdown) respectively. During the pre-lockdown period 29 (17.0%) children were overweight while 15 (8.8%) children were obese. Post-lockdown 90 (18.1%) children were overweight while and 88 (17.7%) children were obese. Among children who were overweight and/or obese post-lockdown 37 (20.8%) also visited at least once Pre-lockdown out of which 18 (48.6%) had normal BMI during their visit prior to the lockdown.
Conclusion: Among children seen in our clinic, the prevalence of obesity and overweight was higher after SAR-COV-2, with new onset overweight and obesity among children seen post-lockdown.

END-038
Late Presentation of Disorders of Sex Development (DSD): Wrong Gender Assignment and Dilemma of Gender Re-Assignment -A Case Series

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Background/Introduction: Disorders of sex development (DSD) refers to somatic conditions of atypical development of the reproductive tract. They occur at a frequency of 1%. Late presentation of DSD, associated with wrong gender assignment and later change of gender can lead to significant emotional, social, and financial consequences. Three cases of late presentation of DSD are presented to create awareness.
Cases' Description:
Case 1: First presented at age of 12 years, with phallic enlargement at puberty, raised as a female. Examination revealed tanner stages breast 2, pubic hair 4, stretched phallic length (SPL) 3.2cm, Prader 3. Progressive masculinisation with re-presentation at 19 years. USS, MRI & Laparoscopy: intrabdominal left testis, intracanalicular right testis. Histology of gonadal biopsy showed germ cell aplasia. Karyotype is XY. HCG stimulation test results are suggestive of 17βhydroxysteroid-dehydrogenase deficiency. Patient desires to transit to the male gender.
Case 2: Presented at age of 13 years with breast development, raised as a male. Examination: B3, P4, SPL 3.0cm, Prader 4. USS: Uterus and 2 ovaries. Normal cortisol and testosterone, borderline high 17OHP. Likely diagnosis: Ovotesticular DSD
Case 3: Presented at age of 17 years with breast development, cyclical "haematuria" associated with abdominal pains, raised as a male. Examination: B3, P4, SPL 6.0cm, Prader 4. Normal serum cortisol,17OHP, testosterone; high E2.USS: Uterus and 2 ovaries, haematocolpos. Karyotype is XX. Likely diagnosis: Ovotesticular DSD
Conclusion: Careful examination of the new born genitalia and appropriate referral when unclear, is advocated to facilitate early detection of DSDs to prevent wrong gender assignment and undesirable consequences.
Key words: disorders of sexual development, late presentation, gender assignment, gender re-assignment.

END-039

Late onset vitamin k deficiency bleeding presenting as intracranial heamorrhage in a 43 day old infant: A case report

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Introduction: Vitamin K deficiency bleeding (VKDB) is a coagulopathy which occurs in neonates and young infants caused by inadequate plasma concentrations of active coagulation factors II, VII, IX and X. It sometimes present with an acute intracranial haemorrhage (ICH) with a mortality of 10–15%. We present a 43-day-old infant with late onset vitamin k deficiency bleeding presenting as intracranial heamorrhage
Case report: A term 43-day-old male infant presented with excessive crying, vomiting and refusal to suck. He had seizures and prolonged bleeding from puncture sites, with a bulging anterior fontanelle. He had PCV of 15%, leukocytosis $16.4x10^3/\mu L$ with neutrophilia, normal platelet of $311x10^3/\mu L$, deranged clotting profile with prolonged prothrombin time and CT scan revealed multiple intracranial bleeds in the right frontal lobes, intra cerebral haematoma and multiple left subdural bleeds. A diagnosis of VKDB with intracranial bleeding was made. He was comanaged with the neurosurgical team, initially conservatively, with anticonvulsants, antibiotics and blood transfusion. He received IV Vitamin K 3mg daily for 3 days. A repeat CT scan was not done initially for financial reasons. He was discharged after eight days but re-presented 37 days later with abnormal body movements. Then, a repeat CT scan showed subdural haematoma collections in the right falx, right frontal region and in the left fronto-parieto-temporal region suggesting chronic subdural haematoma secondary to late-onset VKDB. He had borehole drainage by the neurosurgeons. He was subsequently discharged home and on follow-up at both the neurology and neurosurgical clinics.
Conclusion: Late-onset vitamin K deficiency is a cause of intracranial haemorrhage.Administration of vitamin K at birth and early use of vitamin K are crucial in avoiding morbidities and mortalities in infants.
Keywords: Vitamin K deficiency bleeding, intracranial haemorrhage, late-onset, clotting profile, CT scan.

End-040

Comparison of serum vitamin d status of critically ill and non-critically ill children and its relationship with illness severity and clinical outcome

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Background: Vitamin D is widely known for its role in Calcium and phosphate homeostasis. Its role in immune function has also been explored. In adult cohorts, vitamin D has proven to be beneficial in the management of acute viral and bacterial illnesses via up regulation of host immune defense mechanisms and down regulation of pro-inflammatory mediators. In children, reports have been conflicting.
Therefore, this study sought to determine the prevalence of vitamin D deficiency in critically ill children and its relationship with illness severity and clinical outcomes.
Methods: This study was a hospital-based, comparative, cross-sectional study involving 35 critically ill and 35 non-critically ill children between one month to18 years. Vitamin D levels were determined in both groups.
Vitamin D levels were categorized, and severity of illness of the critically ill group classified based on calculated mSOFA scores. Participants in the critically ill group were followed up till discharge to determine their length of hospital stay or demise.
Results from this study did not determine vitamin D deficiency in critically ill children.
Results: Non critically ill children had lower median vitamin D levels when compared with the critically ill group. In addition, vitamin D status did not relate with Severity of illness, length of hospital stays or mortality.
Conclusion: Serum vitamin D level does not contribute to illness severity and outcome in children. Routine supplementation in children may not be beneficial.

END-041

Comparing Body Mass Index (BMI) and Waist Circumference (WC) as a tool in Assessing Obesity in School Adolescents in Gwagwalada Area Council of the Federal Capital Territory, Nigeria

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Background : Adolescent obesity has significant impact on adolescents' wellbeing even into their adult life. It is a major risk factor for non-communicable diseases such as hypertension and type 2 diabetes mellitus. There is a gradual increase in the prevalence of adolescent obesity in developing countries and the management of the condition with its complications is associated with huge financial burden and economic loss. Simple and inexpensive tools such as body mass index (BMI) and waist circumference (WC) can be used as screening tools for the condition as early diagnosis is crucial to ameliorating the negative impact.
Objective: To determine the prevalence of obesity using BMI and WC and the correlation between them.
Method: A cross-sectional descriptive study was conducted between March and September 2014 among apparently healthy secondary school adolescents in Gwagwalada Area Council of the FCT. A total of 491 apparently healthy secondary school adolescents, aged 10-19 years who met the selection criteria were recruited. The weight, height and WC and the BMI, WC and their per-

centile calculated. Analysis was done usind sps version i6 correlation done using Pearson correlation coefficient.
Results: The mean age of subjects was 14.6±1.6years with most of the subjects in mid adolescence age group. There were 200(40.7%) males and 291(59.3%) females, giving a male to female ratio of 1:1.5. The overall prevalence of obesity using BMI and WC was 4.7% and 13.2% respectively. The proportion of obesity was more in females (6.5%) than in males (2.0%). Waist Circumference showed a strong positive correlation with BMI ($r = 0.704$; $p<0.001$) which was demonstrated by a scatter plot.
Conclusion: Waist Circumference (WC) had a strong positive correlation with BMI and the prevalence of obesity was higher when using WC compared with BMI. WC could thus, be used as a screening tool for obesity in school adolescents as it is cheap and easy to use.
Keywords: Waist Circumference, Body Mass Index, obesity, adolescents

END-042
Atypical presentation of salt-wasting congenital adrenal hyperplasia in a female newborn: a case report

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Background/Introduction: Congenital adrenal hyperplasia (CAH) due to 21-hydroxylase deficiency, characterized by impaired cortisol secretion and elevated androgen production is the leading cause of atypical genitalia in the female newborn. Females with classic CAH, either salt-wasting or simple-virilizing form, usually present at birth with atypical genitalia ranging from clitoromegaly to male-appearing genitalia (due to in utero exposure to elevated androgens) which usually triggers evaluation and diagnosis of CAH. However, when there is an exception to this rule, a high index of suspicion is required for timely accurate diagnosis to prevent fatal hypovolaemia and shock especially in settings without newborn screening. This case is presented to highlight this phenomenon of non-virilisation of the genitalia in a female newborn with salt-wasting CAH.
Case Description: A 3week-old female neonate presented with complaints of weakness and inability to feed. She had been delivered at a general hospital with a birthweight of 3.3kg. She had jaundice which was treated with phototherapy and resolved after 3 days. Pregnancy and delivery were uneventful. Parents identified her as female. On examination she had hanging skin folds, was dehydrated, tachycardic with hyperpigmentation and swelling of the labial folds. No clitoromegaly and no palpable gonads. She had lost 30% of the birthweight and was hypoglycaemic. Serum electrolytes showed initial hyponatraemia and metabolic acidosis with hyperkalaemia subsequently. Serum cortisol was low while testosterone and 17hydroxyprogesterone were elevated. Pelvic USS showed normal sized uterus and no testes suggesting a diagnosis of salt-wasting CAH. She is being managed with hydrocortisone, fludrocortisone and added salt to feeds. Labial swelling and hyperpigmentation have resolved and external genitalia is typically female in appearance. She is gaining weight and thriving.
Conclusion: Salt-wasting CAH can present with adrenal crisis without obvious virilization of the external genitalia in the female newborn.
Key words: congenital adrenal hyperplasia, genitalia, newborn, salt-wasting

General paediatrics and emergency paediatrics

GEP-044
Bedside critical care training: a quasi-experimental study in the paediatric emergency division of a referral hospital in Nigeria

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Introduction: There is a need for critical care services outside intensive care units (ICUs) especially in emergency departments (EDs). However, there is a paucity of skilled manpower for ED critical care (ECC).
Aim: To evaluate the impact of a bedside training on ECC practices of clinical staff.
Methods: This was a quasi-experimental study using a pretest-posttest design in a paediatric ED. The intervention was a 6-week structured bedside training on CPAP, Airvoy2 and mechanical ventilation. Participants' actual ECC practices pre- and post-training were evaluated, including their perceived proficiency on an uncalibrated 100mm visual analogue scale (VAS). Descriptive and inferential analyses were done; $p <0.05$ was considered significant.
Results: A total of 35 clinical staff participated in the training, comprising 9 (24.3%) paediatric registrars, 12 (32.5%) senior registrar, 10(27.0%) nurses, 4(10.8%) house officers and 2(5.4%) paediatric consultants. The male female ratio of the participants was 1:1.6, their mean (SD) age was 33.24±6.30 years. Participants' understanding of testing of CPAP circuit, connecting patient and weaning significantly improves following the training ($p=0.004$). Their capacity to select appropriate Airvoy2 parameters improves ($p=0.013$). They performed more endotracheal intubation in the post-training period ($p=0.001$). Their pretest-posttest proficiency in mechanical ventilation increased on VAS *(45.26 ± 31.99 vs 63.26 ± 22.26; $p=0.038$)*. Also, there was a significant increase in their perceived proficiency in paediatric analgesia/sedation (*30.83 ± 29.86 vs 49.83 ± 23.90; $p=0.029$*). They desired routine posting in ICU.
Conclusion: Short-term bedside critical care training enhances the competency of paediatric ED staff. There is a need for on-the-job ECC training and retraining of

clinical staff in our setting.
Key words: emergency critical care, bedside training, clinical staff

GEP-046
Comparison of infant vaccination trends before and after COVID-19 pandemic in rural and urban settlements in Ibadan, Nigeria

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Background/Aims: Routine vaccination was the most disrupted health service during the COVID-19 pandemic but the extent of the disruption on vaccination timeliness and completion remains unclear. This study compared the infant vaccination trends before and after the onset of COVID-19 pandemic between selected urban and rural communities in Ibadan, Nigeria.
Methods: This was a cross sectional study in which data were extracted from infant vaccination records in two rural and three urban immunization clinics. Data were analyzed using descriptive statistics and Chi square test at α=0.05.
Results: Overall, 2000 vaccination records were included in the study and 1013(50.6%) were for male infants, while 840(42.0%) were from the rural immunization clinics. There were 1194(59.7%) and 806(40.3%) records before and after COVID-19 pandemic respectively. Before the pandemic, birth dose vaccines were timelier among infants from urban communities, while vaccines given at six weeks were timelier in the rural areas. Vaccination of infants in the rural communities were significantly of higher proportion, timelier and more complete after the onset of the pandemic compared with the urban communities, except for the birth dose vaccines. Overall, there was higher vaccination completion before the pandemic, and this was higher in the rural communities before and after the onset of the pandemic.
Conclusion: Decline in infant vaccination uptake, timeliness and completion persisted after the COVID-19 pandemic onset and this was worse in the urban communities. More efforts are required to ensure optimal infant vaccination, especially in the urban communities to forestall outbreak of vaccine preventable diseases among these children.

GEP-047
Family lived experiences and care seeking practices for children during the acute phase of the COVID-19 pandemic in Lagos: a mixed-methods study

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Introduction: The novel coronavirus disease(COVID-19) pandemic is an unprecedented global health crisis-characterized by lockdowns, fear and misinformation. We investigated the impact of COVID-19 on care seeking for children under-five and explored health systems and family adaptations during the initial phase of COVID-19 pandemic in Lagos, Nigeria.
Methods: We reviewed the outpatient attendance (OPD) register (January-June 2020) in the flagship primary health centres and conducted 19 semi-structured interviews with healthcare providers from public and private primary health facilities and 32 interviews with caregivers of under-five children in Ikorodu LGA. Participants were purposively selected from healthcare facilities, and interviews were conducted in private and convenient places at agreed time. All interviews were audio-recorded and transcribed verbatim. We conducted a data -driven thematic analysis to identify codes, which were refined iteratively to form themes. Descriptive statistics were used to summarise the quantitative data.
Results: Between January and March 2020, a total number of 4,252 children presented at the OPD compared to 1,344 children that sought care between April-June 2020. Compared to the pre-lockdown period, pneumonia, sepsis, and malaria diagnoses were reduced by 86.2%, 74.5%, and 59.5% respectively. Qualitative analysis revealed that care-seeking for children was affected as access to transport was limited, facilities were considered as places where COVID-19 infections happened, and caregivers avoided health facilities for fear of being diagnosed with COVID-19 infection and taken to isolation centre. Immunization activities were not disrupted except outreach programme. Caregivers reported diminished household incomes which necessitated loan acquisition or seeking help from family members. Household food insecurity was exacerbated, and caregivers reported going on starvation to save food for their children.

Conclusion: Strengthening health and social support system interventions, notably around ensuring accessing and getting to healthcare is not negatively affected, is crucial to building adaptive capacity for future disease outbreaks.
Keywords: COVID-19, pandemic, adaptation, health system, family

GEP-048
Maternal mental wellbeing and recent child illnesses – a cross-sectional survey analysis from Jigawa State, Nigeria

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Background: Child health indicators in Northern-Nigeria remain low, with the bidirectional association between child health and maternal wellbeing in this context poorly understood. We aim to describe the association between recent child illness, socio-demographic factors and maternal mental-wellbeing in Jigawa State, Nigeria as part of the Integrated Sustainable childhood Pneumonia and Infectious disease Reduction in Nigeria (*Inspiring*) Project.
Methods: We conducted a cross-sectional household survey in Kiyawa LGA, Jigawa State, from January to March 2020 amongst women aged 16-49 with at least one under 5. We used two-stage random sampling to select compounds and eligible women. Mental-wellbeing was assessed using the Short Warwick-Edinburgh Mental-Wellbeing Score (SWEMWBS). With linear regression, we estimated associations between recent child illness, care-seeking and socio-demographic factors and mental-wellbeing.
Results: Overall 1,661 women were surveyed, 8.5% had high mental-wellbeing and 29.5% had low mental-wellbeing. Wealth-quintile and having a sick child in the last 2-weeks were significantly associated with higher mental-wellbeing, while higher levels of education were significantly associated with lower mental-wellbeing. Women's age and age at first marriage had no significant relationship with mental-wellbeing.
Conclusions: Our findings contradicted our working hypothesis that having a recently sick child would be associated with lower mental-wellbeing. We further discovered that education and late marriage, factors commonly attributed to women's empowerment were not linked to better wellbeing. Future work could focus on locally defined tools to measure wellbeing that reflect community norms and values, and ensure solutions culturally acceptable and desirable to women with low mental-wellbeing are initiated.

GEP-049
Morbidity Pattern and Outcome Among Children Admitted in the Children's Ward of the Rivers State University Teaching Hospital, Nigeria

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Background: Periodic evaluation of the pattern of disease and outcome of children admissions is important in auditing the quality and effectiveness of health care systems as well as recommendations on areas of improvements.
Objective: To document the pattern and outcome of admissions into the Children's medical ward of the Rivers State University Teaching Hospital (RSUTH), Nigeria over a five year period.
Methodology: This was a retrospective study of the ward records of all children aged one month to 16 years, admitted into the children's medical ward from 1st January 2017 to 31st of December 2021. The data were analysed using the SPSS version 24.
Results: Of the 2213 patients analysed, males predominated in a ratio of 1.5:1 with majority of the patients aged below 5 years. The mean age was 20.7±3.7 months. Most admissions were during the rainy season and of infectious origin especially malaria, tonsillitis and bronchopneumonia. Non-infectious disease were

acyanotic congenital heart disease, seizures, cerebral palsy and cancers. Majority of the patients were discharged with only 0.4% referred to other facilities for further care.
Conclusion: The morbidity pattern in children admitted in the children medical ward of RSUTH is mostly due to preventable infectious diseases.
Increased government investment in health, improvement in socioeconomic status, health education, improvement in immunization and improved sanitation could reduce the morbidity from infectious diseases.

GEP-051
Pattern of childhood poisoning at the university of Port Harcourt teaching hospital, Port Harcourt

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Background and Aim: Poisoning represents a preventable cause of morbidity and mortality in children worldwide. Most cases of poisoning in children are unintentional with more than 90% of the toxic exposures occurring in the home. Knowledge of the pattern of poisoning in children will aid in the design of preventive strategies. The aim of this study was to describe the pattern of poisoning among children admitted into the Children Emergency Ward (CHEW) at the University of Port Harcourt Teaching Hospital.
Methods: This was a retrospective review of cases of poisoning in children admitted into the emergency room over an 18 month period. The medical case files were reviewed and data obtained on age, sex, type of poisoning, clinical presentation and outcome of treatment.
Results: Poisoning was diagnosed in 9 (0.5%) out of the 1752 children admitted within the period under review. All cases of poisoning were accidental. The mean age of affected children was 26 ±0.8months. The male to female ratio was 1.3:1. The most common agents involved in poisoning were kerosene (44%), sodium hypochlorite (22%) and organophosphates (22%). One child (11%) died while the rest recovered following treatment.
Conclusions: Poisoning accounted for 0.5% of admissions into our CHEW with kerosene being the most common agent reported. Education of caregivers on safe keeping of potential poisons as well as more stringent control of the sale of organophosphates and other pesticides will further reduce the morbidity from childhood poisoning.

GEP-052
Prevention of Mother-to-Child Transmission of Hepatitis B Virus Infection: Antenatal clients' perceptions and practices in Ado-Ekiti, Ekiti State, Nigeria

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Background/Aim: Mother- to- child transmission remains an important mode of transmission of hepatitis B infection particularly in endemic areas. The knowledge and practices of the pregnant women about mother- to-child transmission of hepatitis B virus will greatly influence the uptake of strategies to reduce mother- to- child transmission of infection. The aim of this study was to assess the knowledge and willingness to uptake hepatitis B virus infection preventive services among pregnant women in Ado-Ekiti, Nigeria.
Methods: This was a cross-sectional study that involved 373 pregnant women at the Ekiti State University Teaching Hospital (EKSUTH) and Maternal Child Specialist Clinics, Ado-Ekiti from 1st August to 31st October 2019. A structured questionnaire was used to assess their knowledge, practices and perceptions about mother - to- child transmission of hepatitis B infection.
Results: The mean (SD) age of respondents was 31.0 ± 5.3 years. Only, 52.5% (196) of the respondents had good knowledge despite the fact that the majority 290 (77.7%) had heard of hepatitis B infection prior to the survey. Slightly more than one-half (59.8% and 56.6%) of the respondents knew that hepatitis B virus can be transmitted through unprotected sexual intercourse and taking injections from quacks increase the risk of contracting hepatitis B infection respectively. Only 147 (39.4%) of the respondents had ever had hepatitis B screening. There was a statistically significant association between the level of knowledge about hepatitis B infection and the age of respondents ($p= 0.045$) and willingness to uptake hepatitis B infection prevention services ($p<0.001$)
Conclusion: This study showed that despite the high level of awareness about hepatitis B infection, it did not translate to good practice as only a few (39.4%) of the respondents had hepatitis B screening. Also, there is a need to intensify education about hepatitis B infection with an emphasis on the modes of transmission.

GEP-053

Systemic organophosphate poisoning through topical application of sniper; a case report

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Background: Organophosphate poisoning (OP) is a common cause of life-threatening childhood poisoning. Childhood pesticide poisoning including those from organophosphate accounted for 42% in the annual poisoning reports. Childhood poisoning accounts for 3.9% of all the deaths attributed to childhood unintentional injuries, with highest rates occurring in Africa (4.0 per 100,000). Organophosphates are the main active chemical constituent of herbicides and pesticides, and these are commonly used in the Nigerian homes as insecticides referred to as '*ota pia pia*". Although the commonest route of poisoning children is through accidental oral ingestion, we present an uncommon occurrence of systemic organophosphate poisoning through dermal absorption. The aim of this report is to increase the awareness of healthcare providers on the possibility of systemic poisoning in children following cutaneous absorption.
Method: this is a case report of a six-year-old girl, who presented and was managed at the Children Emergency room of National Obstetric Fistula Centre (NOFIC) Abakaliki, Ebonyi state. Child presented with symptoms of cholinergic over activity -vomiting, difficulty in breathing, bilateral miosis and scalp bullae following copious application of 'sniper' on the scalp as remedy for head lice infestation. Child was managed with supportive therapy and Atropine and symptoms resolved within ten to fourteen days.
Conclusion: Severe systemic organophosphate poisoning can occur following cutaneous absorption, health workers should enquire of these uncommon routes of poisoning through thorough history including enquiry into body care products. Caregivers of children are encouraged to consult Paediatric dermatologist for skin related conditions than experiment on home remedies.

GEP-054

Deaths among children in 26,681 consecutive child admissions in federal teaching hospital, Gombe during the period 2000-2019

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Background/aims: Deaths in children are largely preventable at both the community and hospital levels. The North-East geopolitical zone has the worst child survival figures in the country. We aimed to determine the major causes of death in children of all ages in a tertiary health facility.
Methods: A Retrospective study using International classification of Diseases (ICD10) based on case notes and death certificates of children who died between 2000- 2019 in Federal Teaching Hospital, Gombe. Information retrieved included age, Sex, primary causes of death using ICD 10, duration of admission before death.
Results: Children constituted 32.3% (3956/12214) of total hospital deaths. 55.1% (2181/3956) were males and 44.9% (1775/3956) females. Neonates, Infants, Toddlers, Pre-school, School age and Adolescents constituted 47.7% (1887/3956), 11.5% (455/3956), 12.7% (504/3956), 3.7% (146/3956), 9.1% (360/3956) and 15.3% (604/3956) respectively. 27.2% (1076/3956) died within 24hrs on admission; 50.0% (1979/3956) died within seven days; 12.9% (510/3956) died after 14 days of admission. Birth Asphyxia 15.9% (628/3956), Low Birth Weight 7.8% (307), Congenital malformations 7.5% (297), Neonatal Sepsis 7.1% (279), Malaria 5.3% (209), Septicaemia 5.0% (198), Preterm Low Birth Weight 4.1% (164), Protein Energy Malnutrition 3.5% (138), HIV/AIDS 3.5% (138), Rheumatic Heart Disease 3.2% (125), Pneumonia 3.0% (118), Bacterial meningitis 2.3% (92), Neonatal Jaundice 2.3% (90), Sicke cell Anaemia 1.7%(67), Tuberculosis 1.5% (60), Meconium Aspiration Syndrome 1.4%(57), Aspiration Pneumonia and Diarrhoea disease 1.4%(55), Failure to Thrive 1.3% (51) Tetanus 1.2% (49), Eclampsia 1.0% (40)
Conclusion: Newborn related deaths constituted a significant cause of overall mortality in Children and are largely preventable

GEP-108

Exploring breast-feeding habits among under-five children's mothers in Jigawa (Nigeria) and how other household members influence the practice

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Background/Aims: Improving child nutritional status is an important step towards achieving the Sustainable Development Goals 2(zero hunger) and 3(good health and well-being) in developing countries. This study aims to access feeding practices of mothers of under-5 children and the influence of household members in the exclusive breast-feeding practice. This study is embedded in INSPIRING (Integrated Sustainable childhood Pneumonia and Infectious disease Reduction in Nigeria) project, which aims at improving child health.
Methods: At baseline, we collected data from six settlements of Kiyawa LGA (Jigawa). We conducted in-depth interviews with 36 ethnography mothers of under-5 children, exploring the various feeding practices they engage in, and their perceptions of decision-making around child feeding practices and role of household members. Data was analysed using thematic approach.
Results: Our findings illustrate that breastfeeding practices for the first six months can vary from breast milk alone to breast milk plus water, holy water, water containing date palm. Access to health information and household composition were identified as key determinants to which feeding practices to engage in. However, mother' access to health information was deemed insufficient to commit to exclusive breast-feeding: feeding practice and child care's decision-making does not solely pertain to mothers, but also to other household members (older men/women, in-laws, co-wives, neighbours who support taking care of children).
Conclusions: These findings call for a more comprehensive and inclusive approach for tackling suboptimal feeding in these communities, by addressing cultural norms like feeding children with holy water, washing of breast which often leads to feeding children with water within first few hours of birth and belief that exclusive breast-feeding is as an act of wickedness.
Keywords: Child feeding, exclusive breast-feeding, malnutrition, household dynamics

GEP-109

Knowledge, beliefs and attitude of mothers attending the immunization clinic at the Benue State University Teaching Hospital, Makurdi on breastfeeding

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Introduction: Breastfeeding has been shown to have tremendous benefits to newborns and their mothers. However, putting newborns to the breast and continuing breastfeeding requires the consent of the mother where the belief system, knowledge and the attitude of the mother plays a significant role. Therefore, this study examined the effect of knowledge, beliefs and attitudes of mothers attending the immunization Clinic at the Benue State University Teaching Hospital, Makurdi on breastfeeding practices.
Methods: A cross sectional survey design was used while simple random sampling was used to select mothers attending immunization clinic at the Benue State University Teaching Hospital, Makurdi where 163 mothers were sampled.
Two instruments were used for data collection; belief about breastfeeding Questionnaire and breastfeeding self -efficacy scale short form (BSES-SF). Four hypotheses were formulated and tested using Pearson's r and Multiple regression analysis.
Result: There was a significant positive relationship [r (161) =.221; P<.01] between belief of mothers in relation to breastfeeding at the immunization clinic, Benue State University Teaching Hospital, Makurdi. However, no significant relationship was found between knowledge and breastfeeding behaviour among mothers attending immunization clinic. The third finding showed no significant relationship between attitude and breastfeeding behaviour among mothers attending the immunization clinic, however there was a significant joint influence of belief, knowledge and attitude on breastfeeding among mothers attending immunization clinic at the Benue State University Teaching Hospital, Makurdi [R^2 = .069, R=.262 F(3,155) = 3.808, P<.05].
Conclusion: Beliefs, knowledge and attitude of mothers together influenced their breastfeeding behavior and practices.

Haematology and oncology

HAE-055

A preliminary report on depressive symptoms among children with sickle cell aneamia in a tertiary health facility in north -western Nigeria

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Background/Aims: Sickle cell anaemia (SCA) being a chronic debilitating condition places affected children at risk of depression. The objectives were to determine the prevalence of depressive symptoms in children diagnosed with SCA at Usmanu Danfodiyo University Teaching Hospital (U.D.U.T.H) Sokoto, the perceived causes, coping strategies, intervention sought, and associated factors in identified cases.
Methods: A cross-sectional survey involving children with sickle cell anaemia aged 7-15 years and their caregivers, selected via systematic random sampling. Information on depressive symptoms was obtained using the short mood and feelings questionnaire for children and adolescents. Data was analyzed using IBM-SPSS version 25.0.
Results: Respondents consisted of 120 child-caregiver pair with M:F of the children = 1:1 and mean age of 12.1±2.3 years. Majority 100(83.3%) of the caregivers were females with mean age 39.0±7.6 years. Most 88 (73.3%) of the caregivers were Hausa by tribe, married 112(93.3%), in a monogamous setting 68(56.7%), and petty traders 44(36.7%) with majority 72(60.0%) having low socio-economic status. Fifty-two (43.3%) of the children had depressive symptoms. Recurrent illness 44 (84.6%), missed school days, stress, long waiting time (36(69.2%) each), were the commonest perceived causes. Prayers 40(77.0%), discussing with confidants and accepting fate (32(61.5% each), were the commonest interventions adopted. Age category (p=0.02), family setting (p=0.01), socio-economic status (p<0.001), co-morbidity (p<0.001), family history of depression (p=0.001) were associated with depressive symptoms. On logistic regression, age category 10-15 years (p=0.02), low socio-economic status (p<0.001), and co-morbidity (p=0.001) were the predictors of depressive symptoms.
Conclusions: Depressive symptoms were common among the subjects and associated with some socio-demographic factors and the presence of co-morbidity.
Keywords: Depressive symptoms, Sickle cell anaemia, Children, Sokoto

HAE-056

Clinical profiles of children with sickle cell anaemia on hydroxyurea and the pattern of its uptake: experience from a tertiary hospital in North Central Nigeria

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Background: Hydroxyurea is a sickle cell disease-modifying therapy that is capable of reducing the morbidity, mortality and improving the quality of life of patients with sickle cell anemia (SCA). However, its uptake has been reported to be low both in the developing and developed countries.
Aims: The aim of this study was to describe the clinical profile of children with SCA who are on hydroxyurea and the pattern of uptake of the medication at the Jos University Teaching Hospital (JUTH), Jos.
Methods: This was a cross-sectional study of 479 children with SCA who were on hydroxyurea at the hematology / oncology clinic of JUTH between January 2016 and January 2022. Data on socio-demographics and hydroxyurea history were obtained using a proforma. Data analysis was conducted using SPSS version 23.0 for Windows and descriptive statistical test was carried out on the variables.
Results: A total of 479 children comprising 256 (53.4%) males and 223 (46.6%) females aged 1 – 18 years were on hydroxyurea within the study period. Of the 479 patients, 288 (60.1%) commenced hydroxyurea on account of frequent vaso-occlusive crises (≥2 episodes per year), 33 (6.9%) due to acute chest syndrome, 31 (6.5%) due to stroke, and 127 (26.5%) were offered hydroxyurea as a routine medication. The median duration on hydroxyurea was 47 months (IQR 35-57 months), while the median maximum dosage of the medication was 500mg (IQR 350-750mg). The decision to use hydroxyurea among 297 (62%) of the subjects was influenced by reports from other patients (or patients' care givers) who were treated with the medication. Hydroxyurea uptake increased from 6 patients (1.3%) in 2016 to 479 patients in 2022.
Conclusion: Increased hydroxyurea uptake among patients with SCA is feasible and patients-driven advocacy could help to increase the uptake.

HAE-057

Dose escalation hydroxyurea regimen in children with sickle cell disease: tolerability profile and short term outcomes

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Introduction: Hydroxyurea (HU) has been shown to ameliorate the severity of sickle cell disease (SCD). There are limited reports on its use in Nigerian children with SCD.
Objectives: To evaluate the safety, tolerability, clinical and haematological response to HU in a cohort of children with SCD.
Methods: Prospective, longitudinal study. Children with SCD, who had been on HU for a minimum period of 6 months were enrolled and followed up for a minimum period of 12 months. All had basic anthropometric measurements taken, full blood count estimations and peripheral blood film examinations for malaria parasites at enrolment and subsequently at every clinic visit.
Results: A total of 97 children were enrolled, all had HbSS phenotype. The leading indication for HU therapy was elevated TCD velocities 79 (81.4%). Duration of HU therapy ranged from 18 to 120 months, median 41.0. Mean HU dose was 22.6 (3.9) mg/kg/day. The mean annual episodes of vaso-occlusive crises showed a statistically significant decline from 5 to 1 ($P<0.001$) accompanied by a significant reduction in school absenteeism. HU therapy was associated with a 3-fold reduction in the need for blood transfusion. The mean steady state PCV showed a statistically significant increase from 22.9(4.5)% to 26.6(4.9)% ($P<0.001$). Adverse drug reactions were recorded in 2 (2.1%) cases including one case of severe pancytopaenia. The risk of HU toxicity was higher at doses ≥ 25mg/kg/day.
Conclusion: Hydroxyurea is well tolerated in Nigerian children with SCD. Dose escalation shows added beneficial effects on the clinical and haematological profile.

HAE-058

Early and Prompt Diagnosis and Outcome of Yolk Sac Tumours: Case Series at National Hospital Abuja

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Background: Yolk sac tumors are the most common testicular neoplasms accounting for about 15-30% of germ cell tumors in prepubertal children. They are derived from the primordial germ cells of the human embryo that are destined to be sperm cells or ova; however, they can occur at extra-gonadal sites in children.
Aim/Objective: To raise awareness amongst Paediatricians and Paediatric Oncologists on this condition for high index of suspicion, early diagnosis, and multidisciplinary approach.
Case 1 (5years, male) presented at 8mo of age with 1month history of right scrotal mass which was painless. He had excisional biopsy done, histology and immunohistochemistry showed features of yolk sac tumor. He subsequently had 6 cycles of chemotherapy (Bleomycin, Etoposide, Carboplastin) which was completed in November 2018. The alpha feto-protein (AFP) done prior to commencement of chemotherapy was >1000IU/ml, latest values (October 2022) was 0.66IU/ml (range 0.0-7.3IU/ml). Currently child is 5years old and is developing well.
Case 2 (8years, male) presented at 7years with a 2year history of recurrent painless right scrotal mass and right inguinal masses which had been excised two times, with one histology report of yolk sac tumor and the other, Sertoli cell tumor prior to presentation, no treatment was given. Initial CT scan of the pelvis revealed a huge lobulated mass in the scrotum, measuring7.3cm by 6.8cm and a large irregular right inguinal mass measuring 8.3cm. A repeat excisional biopsy was done on presentation; histology and immunohistochemistry done showed features of yolk sac tumor. The serum alpha feto-protein done was unremarkable. He had 6 cycles of chemotherapy (Bleomycin, Etoposide, Cisplatin); however, the mass masses have grown bigger and have become painful with metastasis to the spine and skull. Repeat Pelvic CT scan (post chemotherapy) showed a heterogenous enhancing mass with necrotic components originating from the right scrotum measuring 5.7cm by 5.1cm. There's also another heterogenous mass noted on the right anterior abdominal wall measuring 4.4cm by 4.4cm. There were also multiple lytic bone lesions in the left iliac bone, the spinous process of L2 and vertebral body of L5 vertebrae. He has had a repeat excision in our center (post-chemotherapy), with a histological finding of yolk sac tumor and has been scheduled for radiotherapy.
Case 3 (10months, female) presented with 6weeks history of progressive abdominal swelling and associated constipation. Abdomino – pelvic ultrasound scan showed right ovarian mass. Child had excisional biopsy of the right ovary and contiguous lymph nodes; histologic findings are in keeping with yolk sac tumor. She is currently being worked up for chemotherapy.
Conclusion: Yolk sac tumor though rare, is a treatable malignancy in children. Early presentation, diagnosis and treatment improves the outcome and ensures a better quality of life for these children.

HAE-059

Knowledge and management of Sickle cell disease among Child health care workers in Nigeria

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Background: Sickle cell disease (SCD) is the most common genetic disorder worldwide. The highest burden of the disease is in Nigeria with a prevalence of 2 to 3%. Child health care workers play a key role in the management of people living with sickle cell disease as a bulk of people with SCD in Nigeria fall under the paediatric age group. Knowledge of disease management and the availability of the standard facility for care is key to achieving optimal patient management. This study set out to obtain an overview of knowledge/experience in management among child healthcare workers and assess the availability of facilities for management hospitals in Nigeria.
Methods: A cross-sectional descriptive study was done on child health care workers attending the 53rd anniversary of the Paediatric Association of Nigeria conference (PANConf) in Uyo, Nigeria. There were 220 respondents, who cut across the six geopolitical zones of Nigeria, consisting of paediatric Consultants, Residents and Nurses. The study was done using self-administered structured questionnaires and datawas analysed using SPSS version 20.
Results: There were 152 (69.1%) females and 68 (30.9%) males. 58.6% of respondents were Consultant paediatricians. 65.5% of respondents practised in tertiary health facilities. All respondents had heard about SCD while 90% had managed patients with SCD. The more common conditions in SCD managed by the respondents were vaso- occlusive crisis (86.8%), anaemia (81.8%), acute chest crisis (79.5%), malaria (71.4%), splenic sequestration (70%), and cerebrovascular disease (70%). The least commonly managed conditions were pulmonary hypertension (20.0%), gallstones (20.0%), and parvovirus B19 infection (16.4%). 84.1 % of respondents reported that their centres had a dedicated sickle cell clinic. For the services offered in centres, most of the hospitals were able to do Full blood counts, blood transfusion services and chest x-rays. Less than 50% of respondents reported the availability of facilities for newborn screening, brain Magnetic resonance imaging, high -performance liquid chromatography and genetic counselling.
Conclusion: Sickle cell disease is commonly managed by child healthcare workers in Nigeria. Facilities for optimal diagnosis and care are still lacking in many hospitals in the country.

HAE-060

Prevalence of nocturnal enuresis, hyposthenuria and the relationship between them in children with sickle cell disease

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Background/Aims: Patients with Sickle Cell Disease (SCD) are at increased risk of developing renal complications referred to as Sickle Cell Nephropathy (SCN). Patients with SCD have higher risks of nocturnal enuresis and hyposthenuria. The study aimed to determine the prevalence of nocturnal enuresis and hyposthenuria in children with SCD compared with those with normal haemoglobin genotype and to determine the relationship between them.
Methods: One hundred and thirty-seven each of consecutive SCD children as well as age and sex matched, haemoglobin AA childrenaged 5 to 15 years were recruited as subjects and controls respectively in a comparative cross-sectional study carried out at the outpatient clinic of the University College Hospital (UCH), Ibadan, Nigeria. DSM-V criteria was used to evaluate for nocturnal enuresis while hyposthenuria was estimated using a clinical refractometer. Data was analysed using SPSS version 25.0.
Results: The prevalence of nocturnal enuresis and hyposthenuria in subjects compared with controls were significant (P=0.036, P=<0.001 respectively) with the subjects being 1.9 times more likely to have nocturnal enuresis and 6.5 times more likely to have hyposthenuria. There was no significant association between nocturnal enuresis and hyposthenuria in both the subjects and controls (P=0.529, P=0.965 respectively).
Conclusions: The prevalence of nocturnal enuresis and hyposthenuria is significantly higher in SCD children than children with haemoglobin genotype AA. Their greater prevalence in children with SCD is not related to each other which suggests that other factors apart from hyposthenuria may contribute to the higher prevalence of nocturnal enuresis in children with SCD.

HAE-061

Quality of life as a predictor of childhood cancer treatment abandonment

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Background/Aims: Childhood cancer comes with a huge

burden of medical and economic consequences on the child and the family. The toxicities associated with treatment cause increased morbidity, and impact on their quality of life. This study explores the quality of life of children with cancer as a predictor of treatment abandonment.

Methods: The study was a prospective, hospital-based survey in two tertiary paediatric oncology centres in north-western Nigeria using the Lansky play performance scale (LPPS) as the indices for quality of life: fully active, normal (score 100, Group I); mild restriction (score 70-90, Group II); moderate restriction (score 50-60, Group III); severe restriction (20-40, Group IV) and disabled (score 0-10, Group V).

Results: There were 51 patients in the study, aged 1-16 years (mean 7.2±3.8), male:female ratio 1.4:1. There were 12(23.5%) leukaemia, 11(21.6%) retinoblastoma, 10(19.6%) lymphoma, 9(17.6%) rhabdomyosarcoma, 6 (11.8%) nephroblastoma, 2(3.9%) neuroblastoma and 1 (2.0%) carcinoma. Treatment related adverse events occurred in 20(39.2%) patients. The LPPS scores were: Group I - 15(29.4%), Group II - 18(35.3%), Group III - 4(7.8%), Group IV - 13(25.5%), Group V - 1(2.0%). There were 33(64.7%) patients on follow-up, 10(19.6%) mortalities and 8(15.7%) abandonments.

In the abandonment category, 4(50%) were LPPS Group I, 3(37.5%) Group II and 1(12.5%) Group III. In addition, 6(75%) had no change in LPPS, while 1(12.5%) each had a positive change and negative change respectively. The risk of abandonment was not statistically significant based on LPPS.

Conclusions: The study found that treatment abandonment was commoner among patients with normal or mild impairment of play activity.

HAE-062

Rare case of Fanconi anemia in a ten year old adolescent female: Case report and literature review

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Introduction: Fanconi anemia (FA) is a rare, genetically heterogeneous autosomal recessive disorder characterized by congenital malformations, hematological problems (progressive bone marrow failure) and predisposition to acute leukemia and other malignancies. It is primarily inherited in an autosomal recessive manner in more than 99% of patients and occurs in all racial and ethnic groups with an incidence of approximately 1 to 5 per million and a male-to-female ratio of 1.2:1.

Case report: We present the case of a ten year old adolescent female who presented in the Emergency Paediatric Unit with generalized tonic clonic convulsions of two hours duration. It was the first episode of seizures in her life and she had no family history of seizure disorders. There was preceding history of fever of one day duration. She is the first of her mother's three children. Mother is a 28year old full time house wife married to a 34 year old trader in a monogamous, consanguineous setting. She was born with multiple skeletal malformations, had been transfused previously on three different occasions, last episode being five years ago. Her developmental milestone compared to other siblings said to be delayed and she is of a smaller size compared to her mates. She had a low grade fever of 37.5^{o}C and was bleeding from a laceration sustained to the tongue during the seizure episode. Her weight was 18kgs and she had multiple limb anomalies including malformations of the forearms, fixed flexion at the elbows and of the hands at the wrist with absent thumbs bilaterally. She had multiple hyperpigmented rashes over the trunk. She was also noticed to have a low set ear, hypertelorism and a high arched palate.

Full blood count result revealed haematocrit of 39%, leukocytopenia (WBC count of 0.8 x 10^3/µL) and severe thrombocytopenia (platelet count of 7 x 10^3/µL), RDT for malaria was reactive. She was assessed as a case of malaria with severe thrombocytopenia and absent radius (TAR) to rule out Fanconi anemia. She had injection artesunate and was transfused with one pint of platelet concentrates following which bleeding from the tongue laceration stopped. She was commenced on subcutaneous granulocyte colony stimulating factor at 50IU daily and was discharged after ten days on admission.

A repeat full blood count on follow up a month later shows pancytopenia with leukocytopenia of 2.6 x 10^3/µL and neutropenia of 0.7 x 10^3/µL, severe anemia with haematocrit of 10.4% and thrombocytopenia of 7 x 10^3/µL but had been bleeding free and fever free since discharged. She was reassessed as a case of Fanconi anemia, readmitted and transfused with packed red cells and platelet concentrates and subsequently placed on twice weekly G-CSF. She is however being planned for a confirmatory test using lymphocyte chromosomal breakage study at a later date.

Conclusion: The diagnosis of Fanconi anemia is usually based on clinical suspicion of abnormal hematologic findings and characteristic physical abnormalities and can be confirmed with a lymphocyte chromosomal breakage study and other genetic studies. Patients with the diagnosis need close multidisciplinary follow-up to improve the expectancy and quality of life.

Keywords: Seizures, consanguineous, musculoskeletal malformations, pancytopenia, bleeding.

HAE-063

Should arginine supplementation become integral part of the protocol for management of sickle cell vaso-occlusive crisis?

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Introduction: Sickle cell vaso-occlusive crisis is characterized by pain of variable intensities, many of which may be severe warranting emergency unit presentation and hospitalization. Often the protocol for management did not contain therapy that addresses the pathogenetic mechanisms of the condition. There is a growing body of evidence supporting the role of supplemental l-arginine, a semi-essential amino acid, in the control of pain and amelioration of the cardiac and pulmonary complications of sickle cell vaso-occlussive crisis.
Objectives: To determine the role of oral arginine therapy in achieving analgesia in patients with severe painful crisis and compare the cardiopulmonary hemodynamics in patients giving arginine with those that do not receive arginine.
Methods and materials: A randomized, blinded, placebo -controlled phase 2 trial utilizing oral arginine and placebo in children hospitalized with severe vaso-occlusive painful crisis at two sites in North central Nigeria was conducted. Permission was obtained from all relevant regulatory authorities.
Results: Patients that received arginine demonstrated improved analgesia at the rate of 1.5 points per day as against 1.09 points per day in the placebo group. The mean pain score at completion of trial was 3.3±0.4 and 4.3±0.4, $p<0.001$, in the arginine and placebo groups, respectively. Post supplement Doppler-derived parameters of cardiopulmonary hemodynamics such as tricuspid regurgitation velocity were lower in the arginine than the placebo group. Patients in the arginine arm were discharged home about 46 hours earlier than those in placebo group.
Conclusion: Arginine supplementation achieves faster analgesia, lower mean pain scores, faster reduction in the peak TRV and other markers of cardiopulmonary hemodynamics, hence, the inclusion of arginine in the VOC management protocol should be considered. Clinical trial registered with Pan African Clinical Trial Registry https://pactr.samrc.ac.za/Search.aspx (PACTR201611001864290).

HAE-064

Transabdominal sonographic evaluation of paediatric sickle cell anaemia patients in steady state at a tertiary health care facility in Nigeria

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Background: Sickle cell anaemia (SCA) is a genetic disorder known to involve all body organs. Major advances have been made in the care of sickle cell patients with reduced morbidity and mortality. This study therefore sought to evaluate the abdominal organs of children with SCA at steady state seen at the Nnamdi Azikiwe University Teaching hospital (NAUTH), Nnewi Nigeria.
Methods: Using a hospital-based prospective design, a total of 116 children (58 with SCA, 58 Non SCA) were recruited consecutively from June 2021 to March 2022 at the Paediatric clinic of NAUTH. The Controls were patients with genotype AA or AS matched for age. An interviewer-administered questionnaire was used to obtain the clinico-demographic data. A 2-D ultrasound machine was then used to visualize abdominal organs of the study participants.
Result: There were 66 (56.9%) males and 50 (43.1%) females, with a male to female ratio of 1.3:1. The mean age of the study participants was 8.4 ± 3.7 years with a range of 5 to 15 years. Overall, the mean dimensions of the liver and kidneys were larger in SCA subjects compared to the non-SCA controls. Statistically significant differences were observed for the right kidney width and length and width of the left kidney ($p<0.05$). The mean splenic size and inferior vena cava diameter were smaller in SCA patients compared to non-SCA patients, but this was not statistically significant ($p<0.05$).
In both groups, a positive linear relationship to increasing age was observed up until around 10 years of age when the liver size of the SCA subjects progressively became smaller. There was a positive correlative pattern between splenic size and age in non-SCA subjects. However, in the SCA cohort, an increase in splenic size compared to the non-SCA subjects and a positive linear relationship was initially observed between 3 to 7 years of age before the trajectory reflected an inverse relationship to increasing age.
Conclusion: Sickle cell anaemia affects key body organs with worsening effects with age. Regular imaging studies should be done routinely for children with SCA for early detection and treatment of SCA complications.
Keywords: Sickle cell anaemia, body organs, kidney, liver, spleen

HAE-065

Vitamin d deficiency in children with sickle cell disease attending the federal medical centre, owo, Ondo State

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Background/Aims: Sickle cell disease (SCD) remains a devastating disease globally, with the highest burden in in Nigeria. Vitamin D deficiency has been observed to worsen morbidity in children with SCD. This study was carried out to determine serum Vitamin D levels in children with SCD, the prevalence of its deficiency in comparison to apparently healthy HbAA children, as well as its relationship with clinical severity of SCD.
Methods: A cross-sectional, comparative study carried out at the Haematology and Children welfare clinics of the Federal Medical Centre, Owo, Nigeria. Consecutive participants who met the inclusion criteria were recruited, their biodata and history obtained and physical examination perfromed. Blood was obtained to determine full blood count and serum Vitamin D levels in the subjects and controls.
Results: A total of 236 children aged 2-16 years comprising of 118 children with SCD and 118 apparently healthy HbAA controls matched for age, and sex were enrolled with a Male: Female ratio of 1.1:1. The median serum Vitamin D levels were not statistically different between SCD subjects (HbSC was 58.7ng/dl, HbSS was 27.0ng/dl) and the controls (25.2 ng/dl) p = 0.09. The prevalence of Vitamin D Deficiency was 39.3% among the SCD subjects and 37.3% in the controls (p=0.31). There was no association between the Vitamin D status and clinical severity of SCD, age, socioeconomic status.
Conclusion: Prevalence of Vitamin D deficiency was similar in subjects and controls, across all age-groups and socioeconomic classes. Vitamin D fortification of our locally produced foods is recommended.

HAE-066

Socio-demographic correlates of haemoglobin genotype variants and red cell indices among apparently healthy children living in a rural community in Ekiti, southwest Nigeria

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Background: Abnormalities of the haemoglobin (Hb) are common inherited disorders. The prevalence of HbSS in Nigeria is 0.9% while the prevalence of HbAA in Nigeria, is as high as 65–88%. The prevalence of anaemia in Nigeria is also high with a percentage of 68%. There is dearth of information on the red cell indices across the Hb genotype variants.
Methods: A community-based cross-sectional study was conducted between April and June 2019 in Ire-Ekiti, Southwest Nigeria. Apparently healthy children aged 1-15 years were randomly recruited from their homes. Blood samples were obtained for Hb genotype by electrophoresis and red cell indices. Data was analyzed using SPSS version 25. The Chi-squareand the Kruskal-Wallis H tests were used. The level of significance was $p<0.050$.
Results: There were 364 children; 289 (79.4%) had HbAA, 70 (19.2%) had AS, 4 (1.1%) had AC and 1 (0.3%) had SS. Among the 14 children with severe anaemia, 13 had HbAA ($p>0.050$) while 10 belonged to the low socioeconomic class ($p=0.027$). The low prevalence of HbSS in this study may be attributed to increased pre-conception Hb genotype testing of prospective parents in Nigeria. HbAA are more prone to severe anaemia, and abnormal red cell indices and morphology.
Conclusion: There is low prevalence of HbSS among children in the study locality. This may be due to increased awareness and uptake of genetic counselling and testing to prevent HbSS. There is a need to improve the socio-demographic status of rural dwellers in the community in order to reduce prevalence of severe anaemia.
Keywords: Haemoglobin genotype; Red cell indices; Rural community; Sociodemographic factors; Southwest Nigeria

HAE-134

Determination of hepatitis B immune status and associated factors in children with sickle cell anemia vaccinated during infancy in Benin City, Nigeria

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Background/Aims: Hepatitis B immunization is the most effective preventive measure against hepatitis B virus (HBV) infection. Children with sickle cell anemia (SCA) are at increased risk of HBV infection and also have immune dysfunction that predisposes them to impaired immune response to some vaccines. This study was done to determine the Anti-HBs titre, hepatitis B

sero-protection rate and associated factors in vaccinated children with SCA.
Methods: A cross-sectional study conducted among 96 children with SCA aged 1-10years who were fully vaccinated in infancy according to National Programme on Immunization schedule, and their age- and sex-matched haemoglobin AA controls in University of Benin Teaching Hospital and Sickle Cell Centre, Benin City. Serum Anti-HBs titres and hepatitis B sero-protection rate were determined in both groups using the enzyme-linked immunosorbent assay (ELISA). Data was analyzed using Mann-Whitney U test and Chi-square test.
Results: The median (IQR) Anti-HBs titre observed in children with SCA [33.45 (5.05-146.00)] IU/L was comparable to [20.32 (5.88-89.23)] IU/L observed in the controls. (U=0.784, p=0.433). Similarly, the hepatitis B sero-protection rate of 67.7% observed in the subjects was comparable to 65.6% observed in the controls (c^2 = 0.094, p= 0.759). Prematurity was found to be associated with lower hepatitis B sero-protection rate in children with SCA (c2= 7.262, p=0.013).
Conclusion: Hepatitis B immune status of vaccinated children with SCA is normal and comparable to that of HbAA controls. Prematurity is associated with lower hepatitis B sero-protection rate in children with SCA. Therefore, the universal infant HBV immunization programme is also effective in children with SCA but Anti-HBs titre should be measured in those older than 5yrs and born preterm.

Infectious diseases

INF-045
Combating The Challenges Of Reconstituting Oral Rehydration Salt: Is Ready-To Drink Preparation An Option?

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Background and Aim: Diarrhoea is a leading killer of children, accounting for over 1,300 young childrendying worldwide each day.Despite the availability of a simple treatment solution,dehydration remains the most common and severe threat posed by diarrhoea. This study explored the challenges mothers face while reconstituting oral rehydration salt and their interest in other forms of preparation.
Method: Mothers of under-five children who had diarrhoea within six months of the interview and who used ORS were interviewed. Thirty in-depth interviews were conducted across the six geopolitical zones in Nigeria.
Result: Interviews confirmed mothers' good knowledge of the dangers of diarrhoea and the importance of rehydration in management of diarrhoea. Challenges encountered by the mothers while reconstituting included non-uniformity of ORS-water ratio, unavailability of clean water, discarding volumes of unused reconstituted solution and difficulty in getting child to drink the ORS. Responses showed low awareness of other forms of ORS, apart from powder, but a high interest in ready-to-drink preparation.
Conclusion: The findings revealed mothers' desire to combat complications of dehydration following diarrhoea. However, there are many challenges with reconstituting the existing ORS preparation. There is a need to explore other rehydration preparation options to combat these challenges and reduce the morbidity and mortality following complications of diarrhoea. The findings in this study can be translated into programmatic interventions to mitigate the burden that occurs due to diarrhoea.
Key words: Oral rehydration salt (ORS), Diarrhoea, Under-fives, Ready-to-drink ORS, Nigeria

INF-067
Comparative study of malaria retinopathy among under-five children with severe and uncomplicated malaria in Nigeria

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Introduction/Aim: Malaria retinopathy refers to retinal abnormalities unique to malaria, resulting from prolonged parasitization by *Plasmodium falciparum.* They include retinal whitening, vessel abnormality, haemorrhages and papilloedema. Identifying these features and treating promptly could prevent lethal complications of malaria. Therefore, this study was conducted to identify and compare retinal findings in severe and uncomplicated malaria.
Methods: A cross-sectional study of 260 subjects equally divided into two groups of severe and uncomplicated malaria. Direct ophthalmoscopy was done at recruitment for all subjects and at 24 and 48 hours for severe malaria subjects. Data was analysed using and p-value <5% was considered significant.
Results: There were 141 (54.2%) males and predominant age group was 13-24 months (26.9%). Severe anaemia (58.5%) was the predominant form of severe malaria. Twenty-three (17.7%) subjects with severe malaria and none with uncomplicated malaria had retinopathy. Retinal whitening (17.7%), vessel changes (16.2%), and retinal haemorrhages (5.4%) were the forms of retinopathy observed. Retinopathy occurred in 43.8% of those with cerebral malaria. Cerebral malaria was an independent predictor of retinal whitening (p = 0.004) and vessel changes (p = 0.008) while haemoglobinuria was an independent predictor of retinal haemorrhages (p = 0.007).

Conclusion: Ophthalmoscopy is an important examination in children with severe malaria, which could aid in early detection, and with prompt treatment, reduce morbidities and mortalities.

INF-068

Comparison of culture and PCR methods in the evaluation of children with suspected bacterial meningitis at the University College Hospital, Ibadan, Nigeria

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Background and Aims: Molecular techniques for diagnosing meningitis that are routinely available in developed countries are often unavailable in this environment. Standard cerebrospinal fluid (CSF) microscopy culture and sensitivity have been shown to miss cases of meningitis especially in this environment where timely analysis are often not carried out for logistical reasons. The objective of this study was to compare the yield of CSF culture and polymerase chain reaction for the evaluation of patients presenting with suspected meningitis at the University College Hospital Ibadan.
Materials and Methods: All children presenting with suspected meningitis had their historical and clinical details entered into a structured proforma. Cerebrospinal fluid (CSF) samples were sent for microscopy, culture and sensitivity and for polymerase chain reaction to determine the presence of bacterial 16s bacterial RNA gene.
Results: There were 98 subjects, 57 males (58.2%) and 41 females. The mean age of presentation was 26.7 ± 22.8 months, there were 8 (8.2%) neonates and 88 (89.8%) were under 5 years. The most common presenting CNS signs were lethargy seizures 82 (83.6%), 68 (70.1%) and coma 17 (17.5%). Culture was negative in all the patients while 16s RNA was positive in 19 (19.4%). The white cell count was raised in seven samples, 5 of which were positive for 16s RNA.
Conclusion: As demonstrated, meningitisis more common in under-5and the yield from PCR was significantly higher than from CSF culture. This suggests many cases maybe missed if we rely solely on CSF culture.

INF-069

Diagnostic value of index of suspicion for Lassa virus disease in an Emergency Paediatric Unit in endemic areas – *the case for universal testing*

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Background/Aim: Lassa virus disease is endemic in Nigeria and infected children are often first seen in Children Emergency Rooms (CHER) where initial diagnosis is reliant on the clinical index of suspicion of attending physicians. We assessed the diagnostic value of this index in acutely ill children during a period of increasing incidence of LVD in Nigeria.
Methods: From January 2018-March 2022 we assessed consecutive admissions to the CHER for based on a defined clinical index of suspicion and those with a provisional diagnosis or differential of LVD were tested using LASV-RT-PCR. We then compared the trend in prevalence of suspected and confirmed LVD during the period using Yates corrected chi-square test with the level of significance set at $p<0.05$.
Results: 197/2086 (9.4%) admissions in 2018-2019 versus 119/2207 (5.4%) in 2020-2022 (OR (95% CI) = 1.83 (1.45, 2.32), p <0.001) had suspected and 61/2086 (2.9%) versus 65/2207 (3.0%) (OR = 0.99 (0.70, 1.42), p = 0.960) confirmed LVD. The proportion of suspected cases with confirmed infections was 31.0% versus 54.6% (OR = 0.37 (0.23, 0.60), p <0.001) in 2018-2019 versus 2020-2022. A diagnosis of LVD was subsequently confirmed in 3 children (0.07%) in whom it was not initially suspected. The overall sensitivity of clinical index for LVD was 97.7% and the specificity 95.6%.
Conclusion: The diagnostic value of index of suspicion is high but arguably not high enough for an infection of such serious public health and medical importance. We accordingly recommend universal testing of febrile children in endemic areas.
Key Words: Children; Clinical index of suspicion; Diagnosis; Emergency Paediatric Unit; Endemic areas; Lassa virus disease.

INF-070

Effect of antiretroviral treatment optimisation with Dolutegravir in HIV positive children and adolescents at the University College Hospital, Ibadan

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Background/Aims: Dolutegravir (DTG) has recently been adopted for HIV treatment globally. Though weight gain and hyperglycaemia were reported in adults, there is paucity of data on DTG outcome in the paediatrics population. This study aimed to assess the virologic response, weight and blood sugar changes associated

with DTG in HIV positive children and adolescents at University College Hospital, Ibadan.
Method: This was an interventional study (before-and-after design). Viral load, weight and random blood sugar were assessed at baseline and at 6 months after optimising with DTG. Other data were extracted from clinic records.
Results: A total of 50 patients commenced on DTG were enrolled into the study. The mean age was 72.7 (SD 35.6) months; 27 (54%) were males, 41 (82%) were ART-experienced. The commonest prior regimen was ABC/3TC/LPV/r (62%). In the 41 patients optimised with DTG, there was a significant increase in CD_4+ count (>200 cells/ul) from 87.8% (baseline) to 92.7% (p = 0.001) while complete virologic suppression (<1000 copies/ml) was achieved by 28 (68.3%) compared to 33 (80.5%) after DTG (p =0.001). Weight gain was recorded in 8 (19.5 %) patients and there was no significant change in the blood sugar levels. Post DTG, only one patient died compared to 3deaths in the programme in the preceding 6 months on previous regimens.
Conclusion: Dolutegravir was well tolerated and showed improvement in treatment response. Optimisation with DTG based regimen is recommended in children and adolescents for the best outcome.

INF-071
Impact of COVID-19 on outcomes of childhood severe malaria: A comparative of study pre-COVID-19 and COVID-19 periods

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Background: The collateral damages from measures adopted to mitigate the COVID-19 pandemic have been projected to impact negatively on malaria in sub-Saharan Africa. Herein, we compared the prevalence and outcomes of childhood severe malaria during pre-COVID-19 and COVID-19 periods at a tertiary health facility in Nigeria.
Methods: This was a retrospective review of cases of severe malaria admitted from 1st January to 31st December 2019 (pre-COVID-19 period) and 1st January to 31st December 2020 (COVID-19 period). We extracted relevant information including demographics, duration of symptoms before presentation, forms of severe malaria, and outcomes of hospitalization (discharged or death).
Results: In the pre-COVID period, there were a total of 2312 admissions to the EPU and 1685 in the COVID period representing a decline of 27%. In contrast, there were 263 and 292 severe malaria admissions in the pre-COVID-19 and COVID-19 periods, respectively, representing an 11% increase in the absolute number of cases. The prevalence rates were 11.4% in the pre-COVID-19 period and 17.3% in the COVID-19 period representing an increase of 52% in the percentage differences. The mortality rate in COVID-19 period was higher than the pre-COVID-19 period ([10.3%;30/292 vs 2.3% 6/263], p< 0.001). The death rate increased by 350.0% during the COVID-19 period. A child is five times more likely to die from severe malaria in the COVID-19 era than in pre-COVID time (4.9, 95% CI 2.008, 11.982). In the COVID-19 era, presentation at a health facility was also delayed (p=0.029), as were the odds of multiple features of severe malaria manifestations (p=0.020).
Conclusion: This study shows that the prevalence of severe childhood malaria increased by as high as11.0%, with a disproportionate increase in mortality compared to the pre-pandemic level. Most children with severe malaria presented late with multiple features of severe malaria probably contributing to the poor hospitalization outcomes (death) observed in this study.

INF-072
Electronic Capture and Integration of Clinical and Microbiological Information to Improve Antimicrobial Stewardship and Patient Outcomes: Lessons from the ACORN-2 Project

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Background/Aim: The global antimicrobial resistance (AMR) threat continues to rage on, especially in Low- and Middle-income countries (LMICs). Much of the limited resistance data available is isolate- rather than patient-focused. Electronic integration of clinical and laboratory information is useful for AMR surveillance. We share preliminary report from the UCH, Ibadan pilot of a multi-country, multi-centre initiative; A clinically oriented antimicrobial resistance surveillance network (ACORN-2)
Method: ACORN-2 is a case-based AMR surveillance pilot that synergizes clinical and laboratory data and provides summaries to strengthen diagnostic and antimicrobial stewardship in an iterative manner. Data feed into a dashboard that provides summaries of antibiotics used, indications, isolates, infection patterns, and clinical outcomes. Information is used to address suspected infection outbreaks, proportion of World Health Organisation "watch" or "reserve" class antibiotics used, diagnostic stewardship, and IPC.

Results: From April to October 2022, 662 children were enrolled, with mean (SD) age of 4.5 (2.6) years and 403 (61%) males. Common empiric antibiotics used were ceftriaxone (85.9%) and amikacin (40.7%). Overall, 479 blood cultures were processed, which yielded 144 isolates including *Staphylococcus aureus* 10 (6.9%), *Klebsiella pneumoniae* 10 (6.9%), *Salmonella* spp. 7 (4.9), *Acinetobacter baumanii* 4 (2.8%), *Pseudomonas aeruginosa* 4 (2.8%), and coagulase negative *Staphylococcus aureus* 58 (40.3%). There were 32 hospital acquired infections, 84% of patients were discharged, 14% died, and 4% left against medical advice.
Conclusion: Electronic capture and integration tools are useful for supporting diagnostic and antibiotic stewardship. Their strategic deployment in LMICs will support AMR containment activities and improve patient outcomes.

INF-073
Knowledge of malaria and it's prevention amongst caregivers of children with fever in Abakaliki, Nigeria

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Background/Aims: Malaria remains a major cause of death in children, predominantly in sub-Saharan Africa, taking the life of a child every 2 minutes, despite improvements in control of malaria. The people's knowledge and attitude towards their health contributes to the success of disease prevention and treatment.
This study aimed at assessing the knowledge of malaria and it's prevention amongst caregivers of children with fever in Abakiliki, Nigeria in order to inform policy recommendation that will improve malaria control programme in the state.
Methods: The study was carried out in Abakaliki L.G.A in Ebonyi state. Multistage sampling method was used. Data was collected with pre-tested interviewer-administered questionnaires from 310 caregivers. All questionnaires were returned and properly filled and fitted for analysis giving a response rate of 100%.
Results: The knowledge of mothers on malaria and it's prevention was very high. Almost all the mothers 305 (98.5%) knew that the cause of malaria is through mosquito bite. It is note-worthy to know that some mothers still believed that playing in the pool of stagnant water and drinking dirty water could cause malaria.
Most of the mothers agreed and strongly agreed that malaria is the common cause of fever in children with mean score of 4.12 (SD=1.03). Likewise, most of them agreed and strongly agreed that malaria can be prevented with mean score of 4.36 (SD= 0.92).
Conclusion: The good knowledge of mothers about malaria and it's prevention is important as it can influence their health seeking behaviour & can inform policy recommendation that will improve malaria control programme thereby reducing morbidity and mortality due to malaria amongst children in Nigeria.

INF-074
Lessons from a case series of severe neonatal Lassa virus disease (LVD)

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Background/Aim: The non-specificity of presentation and paucity of published reports compound the difficulties in diagnosis and treatment of neonatal LVD. We report a case series of 5 babies with characteristic manifestations and a high case fatality.
Methods: We describe the clinical presentations and outcomes of 5 babies with polymerase chain reaction confirmed LVD treated between January 2021 and February 2022.
Results: 4/206 out-born versus 1/229 inborn babies had LVD (OR (95% CI) = 4.52 (0.50, 40.71), p = 0.310) while 3/40 deaths among out-born versus 0/41 among inborn babies were associated with LVD (OR not applicable, p = 0.232). Overall, 3/5 (60.0%) babies with LVD versus 78/430 (18.1%) with other morbidities died (OR = 6.77 (1.11, 41.19), p = 0.094).
The inborn baby was admitted at 1 hour of age with diffuse swelling of the neck noticed at delivery. The 4 outborn babies were admitted between 10-22 days of age. The first developed swelling of the neck and abdomen with bleeding from the mouth 6 days after admission. The 2nd and 3rd were a set of twins. Both had generalized body swelling associated with bleeding from the mouth in twin 1 and respiratory distress in twin 2. The 4th baby was admitted with diffuse swelling of the neck and bleeding from the mouth and nostrils.
Conclusion: LVD might be a hidden cause of neonatal morbidity/mortality in endemic areas and swelling of the body and bleeding pointers to a high case fatality. We discuss the implications of these findings.

Key Words: Neonatal Lassa virus disease; Neonatal mortality and morbidity; Severe manifestations.

INF-075

Methicillin Resistant Staphylococcus aureus infections and outcomes in children seen at the University College Hospital, Ibadan: A Cross Sectional Analytical Study

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Background/Aim: Most reports of community acquired methicillin resistant *Staphylococcus aureus* (MRSA) infection are from developed countries. We evaluated the pattern and outcomes of *S. aureus* infection in our paediatric population.
Methods: A prospective study of bacterial infections among children at the University College Hospital Ibadan was conducted between January 2020 and February 2022. *S. aureus* (SA) infections, and clinical outcomes were evaluated using binary and multivariable regression analysis. Statistical significance was set at $p < 0.05$.
Results: A total of 738 children were enrolled, 419 (56.7%) were males, median (min, max) age was 18.5months (1day, 21years), 598 (81.0%) and 140 (19.0%) had suspected CAI and HAI respectively. *S. aureus* infection was confirmed in 62/738 (8.4%) children, 50/598(8.4%) in suspected CAI and 12/140(8.6%) in suspected HAI. Among *S. aureus* infections, 18/62 (29.0%) were MRSA infections, 15/50 (30%) of SA-CAI and 3/12 (25%) of SA- HAI. Children with *S. aureus* infection accounted for 13/104 (12.5%) of deaths, case fatality was 6/18 (33.3%) among MRSA group and 7/44 (15.9%) among MSSA group. Likelihood of death was 2.04, 95% CI (1.05, 4.0) times higher in children with *S. aureus* infection compared to those without bacteria isolate. In children with MRSA infection, the likelihood of death was 3.173, 95% CI (1.16, 8.65) higher compared to those without MRSA infection.
Conclusion: Likelihood of death is higher in children with *S. aureus* infection, and even higher with MRSA infections. Bacteriological confirmation and institution of appropriate antibiotic therapy should be a priority in children with suspected *S. aureus* infections.

INF-076

Mucocutaneous manifestations in HIV- infected children and the relationship to CD4 count and CD4 percentage in Umuahia, South East Nigeria

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Background: Mucocutaneous disorders can be the initial presenting feature of Human Immunodeficiency Virus (HIV) infection and usually occur at one point or the other during the course of HIV infection or AIDS. They can serve as important markers of disease severity. $CD4^+$ lymphocyte count and percentage is an immunologic classification system used to assess the degree of immunosuppression in HIV.
Objective: To determine the prevalence of mucocutaneous manifestations and their relationship with the degree of immunosup pression using the CD4 indices among HIV infected children attending the paediatric HIV clinic of the Federal Medical Centre (FMC) Umuahia.
Method: A descriptive, cross-sectional study was carried out on a total of 120 children, aged 4months to 15 years with the diagnosis of HIV infection who met the inclusion criteria and were consecutively recruited from the paediatric HIV clinic. Clinical information was collected using a questionnaire and laboratory investigations were done to obtain the CD4 indices. Data analysis was done using IBM SPSS Statistics version 20.0 for windows.
Result: The prevalence of mucocutaneous lesions among children with HIV infection was 55.8%.Pruritic Papular Eruption (PPE) was the single most common mucocutaneous manifestation. The difference in mean CD4count and mean CD4 percentage of those with mucocutaneous lesions and those without mucocutaneous lesions were statistically significant with $t=4.37$, $p<0.001$ and $t=8.83$, $p <0.001$ respectively.
Conclusion: The prevalence of mucocutaneous disorders was high in HIV infected children. The severity of the mucocutaneous manifestation increased with worsening immune status.
Keywords: Mucocutaneous manifestations, Human immunodeficiency virus, CD4 count.

INF-077

Outcome of dolutegravir-based fixed dose combination therapy in children attending antiretroviral clinic in National Hospital Abuja.

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Background: Achieving good adherence to treatment and viral suppression in the long term remains challenging in children and adolescents infected with HIV.
To demonstrate viral suppression and a concomitant increase in $CD4^+$ cell count after initiation of DTG-based Fixed dose combination (FDC) and to determine good adherence following DTG-based FDC as well as any reported side effects.
Methods: This was a prospective cross-sectional study of 100 children aged 6 to 18 years on DTG based FDC between June 2019 to July 2022 at Paediatric antiretroviral therapy (ART) clinic of the National Hospital, Abuja. All eligible children were recruited into the study. Clinical and biological data collected before and after dolutegravir initiation were analyzed. A significance level was set at a two-tailed $p < 0.05$ for all analysis.
Results: The mean age of the children was 14 ± 2.68 years with 58%males and 42%females. Fifty (50%)of the children had both parents as their caregivers while mother was the caregiver for 21% The mean weight was 49.2 ±13.3 kg while the mean height was 157.7 ± 12.2 cm. At baseline, 35 (35%) were virally suppressed (viral load < 1000 copies /ml) while 25 (25%) had undetectable viral load (<20 copies/ml), however 6 months after transition to DTG-based FDC, 69% had undetectable viral load. In overall 92% had sustained viral suppression (viral load < 200 copies/ml) over the two years of study. Increase in CD4 count over the same period was found in 60%
Good adherence was reported in 93%.Dolutegravir was well tolerated with no reported side effect.
Conclusion: This study has shown significant sustained viral suppression and good adherence to DTG-based FDC in the treatment of eligible children and adolescents. Therefore, transition to DTG-based FDC is advocated in eligible children with HIV/AIDS.

INF-078

The level of neutralizing passive poliovirus antibodies in newborn babies: An advise to early administration of Inactivated Polio Vaccine (IPV)

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Introduction: Presently, Inactivated poliovirus (IPV) vaccines is scheduled for infants older than 6 weeks of age as part of the End-game strategy. This is in preparation of phasing out Oral Polio vaccine (OPV) in regions that have achieved polio elimination. There is need to monitor level of circulating poliovirus (PV) antibodies among newborn babies to aid decision on the adjustment of time of administration of IPV to avoid interferance with the effectiveness of the vaccine.
Methods: The seroprevalence of anti-PV (neutralizing and non-neutralizing) antibodies of newborn babies who were delivered at two tertiary hospitals in southeast
Nigeria were deteremined. After informed consent was obtained blood samples of babies and mothers, were collected respectively. The Poliovirus antibody (IgG) titre levels was determined using enzyme linked immunosorbent assay (ELISA) method.
Results: Neutralizing anti-PV antibodies were detected in all (100%) the 128 samples from newborn babies analyzed. The average antibody titres were 22.48U/L and 22.6 IU/L for the mothers and babies respectively. The average level of the antipolio immunoglobin in the newborns was above the cut-off values for the protective level of 10-15 IU/L.
Conclusions: There is an efficient transfer of maternal antibodies to their babies, with minimal variability of the antibody titre between mothers and their babies. The level of transferred maternal poliovirus antibodiesto the newborns at birth was adequate to prevent them from poliovirus infection. However there is also need to establish the level at about 6 weeks to avoid negatively impacting the immune response in infants after IPV vaccination.
Key Words: Antibodies; Babies; Poliovirus;

INF-079

Paediatric multisystem inflammatory syndrome and severe depression complicating COVID-19 in a 14-year-old Nigerian girl with background systemic lupus erythematosus

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Introduction: Although SARS-COV-2 infection runs a milder course in children, it could rarely present with

life threatening complications particularly in children with comorbidities. Here we present a case of a 14-year-old girl who had systemic lupus erythematosus and developed the paediatric multi-system syndrome associated with COVID-19 as well as severe depression.
Methods: The case folder of the child was summarised and the relevant literature was reviewed
Case Summary: It was a case of a 14-year-old girl who presented with five months' history of high-grade remittent fever, progressive weight loss and recurrent severe joint pains. There was associated photosensitive skin rash and two weeks history of cough and inability to walk. The rashes were typical of systemic lupus erythematosus and associated with alopecia areata. At presentation, she was markedly wasted, apathetic, wasted and moderately pale. There were widespread hyperpigmented skin rashes, the rashes were a mixture of macules, papule and patches involving the face and other parts of the body. The rashes on the face spared the nasolabial fold. She had deranged anthropometry. She was diagnosed of Systemic lupus erythematosus and was given on hydroxychloroquine, azathioprine, prednisolone, and antibiotics among others.
By the third week on admission, she was still having occasional fever, and coughing associated with drenching night sweats. She tested positive for SARS-COV-2 infection thirty-two days into admission and was moved to the isolation ward. At the isolation ward, she started having excessive crying with the desire to go home and suicidal ideation. At this point an additional diagnosis of COVID-19 pneumonia and severe depression and separation anxiety syndrome were made. Ten days later, she had stabilized and her repeat SARS-COV-2 screening was negative. She was consequently discharged home on request. About 36 hours after the discharge, she was rushed back to the hospital on account of worsening difficulty in breathing, severe hypoxemia, vomiting and diarrhea of a day's duration. Her condition deteriorated rapidly and she died within three days of re-admission.
Conclusion: This was a case of adolescent with Systemic Lupus Erythematosus who contracted SARS-COV -2 infection while on admission and subsequently developed severe depression, COVID-19 pneumonia, and features of multisystem inflammatory syndrome. This report highlights the need for to take extra measures to prevent immunosuppress patients from contracting SRS-COV-2 infection while on admission as well early involvement of a multidisciplinary team to tackle all the possible complications of COVID-19.
Key Words: Systemic Lupus Erythematosus, Covid-19, Multisystem Inflammatory Syndrome, Severe Depression, Adolescent.

INF-080
Rapid diagnosis of group a streptococcal pharyngitis in children at the federal teaching hospital Gombe

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Background: Throat swab cultures still remain the gold standard for the confirmation of Group A Streptococcal (GAS) pharyngitis but Rapid Antigen detection Test (RADT) are increasingly becoming popular. Recent studies show RADT can be as sensitive and specific as the throat swab culture. This study aimed to determine the utility of RADT in the diagnosis of GAS pharyngitis in children at the Federal Teaching Hospital Gombe.
Methods: 324 children 3-18 years presenting with sore-throat at the out-patient department were consecutively recruited between April and September 2018. Socio-demographic and clinical findings were document. Throat swab samples were taken for RADT using Encode strep A Rapid antigen test and culture on 5% sheep blood agar. The sensitivity, specificity and positive and negative predictive values of the RADT against the gold standard was determined.
Results: There were 190 (58.6%) females and Male to Female ratio of 1:1.4. The mean age was 8.3± 3.9 years. Only 125 (38.6%) of the participants were from low social class and 162 (62.3%) are from overcrowded households.
GAS was isolated in 73 (28.1%) of the children with pharyngitis. The RADT had sensitivity and specificity of 84.6% and 96.2% respectively and a PPV and NPV of 90.4% and 93.6% respectively.
Conclusion: the RADT is reasonably sensitive and specific and can be used in the diagnosis of GAS pharyngitis in clinics as a substitute for throat swab cultures.

INF-081
Diagnostic utility of Micro-ESR as an alternative to the Westergren methodin the management of bone and joint infections in children at the University College Hospital, Ibadan

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Background: Acute bone and joint infections (BJIs) in children may clinically occur as septic arthritis or osteomyelitis. The cost and long turn-around time of the laboratory tests for BJIs pose a challenge especially in low middle income settings. The diagnostic utility and correlation between Micro-ESR and conventional Westergren ESR method were studied in children with BJIs at the University College Hospital, Ibadan.
Method: Consecutive patients with clinical and radiological features of BJIs were studied. Socio-demographic, clinical and laboratory information were obtained. Micro-ESR was performed using peripheral blood collected in a capillary tube. The diagnostic

performance was compared with same day conventional ESR used as gold standard.
Results: A total of 66 patients were studied with a median age of 5.0 (IQR 0.9 - 10.0) years. Males accounted for 32(48.5%), and 64(96.8%) were from low and middle socio-economic classes. Osteomyelitis alone accounted for 25(36.8%), 28(42.6%) had arthritis and 16 (26.5%) had mixed infection. The commonest joints affected were the hip and knee; 22(46.8%) and 14 (29.4%) respectively while the femur and humerus were mostly affected; 18(42.8%) and 11(26.3%) respectively. Haemoglobinopathy and trauma were significant risk factors. ESR compared with WBC showed: AUC=0.597, sensitivity=50.0%, specificity=43.8%, NPV=67.7%, PPV=27.0%), and with blood/aspirate cultures: AUC=0.642, sensitivity=54.3%, specificity=64.3%, NPV=14.5%; PPV=92.6%. The performance of ESR in osteomyelitis versus septic arthritis was similar. Micro-ESR correlated positively with conventional ESR results (r=0.706, p= 0.001).
Conclusion: Micro-ESR could be adopted as a cheap and reliable point-of-care biomarker in the diagnosis and monitoring of bone and joint infections.

INF-082
Malaria diagnosis at the emergency unit of a teaching hospital in Makurdi North Central Nigeria

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Background: Globally there were 241 million cases of malaria in 2020, with an estimated 627,000 deaths and Nigeria accounted for 27% of the global malaria cases. In sub-Saharan Africa, testing is low with only 28% of children with a fever receiving medical advice or a rapid diagnostic test in 2021. In Nigeria, there are documented reports of over-diagnosis and overtreatment of malaria in children Therefore, this study examined the diagnosis of malaria at the Benue State University Teaching Hospital, Makurdi
Methods: A 5 year (2018-2022) retrospective study was carried out at the Emergency Paediatric Unit (EPU). Records of all children presenting to the EPU with an assessment of malaria were retrieved and reviewed and data was analyzed using SPSS 23.
Result: Out of 206 children reviewed, 128 (62.1%) were tested using either malaria RDT or microscopy while 78 (37.9%) were not tested. Out of the number tested, 59 (46.1%) were negative while 69 (53.9%) tested positive, of which 14(20.3%) had uncomplicated malaria while 55(79.7%) had severe malaria.
However, while 97.1% (67) of the positive cases were treated with IV artesunate, 69.5% (41) of those who tested negative and 88.5% (69) of those who were not tested also received IV artesunate. Moreover, while 85.5% (59) of those who tested positive received oral ACT, 72.9% (43) of those who tested negative and 67.9% (53) of those who were not tested also received oral ACT.
Conclusion: There was over-diagnosis of malaria and subsequently overtreatment. Hence continued emphasis on parasitological confirmation of malaria before treatment is recommended.

INF-083
Post neonatal Bacterial Meningitis in a tertiary health facility in the Savannah region of North East Nigeria during the period 2000-2019

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Background/aims: Bacterial meningitis is a life-threatening illness. Rapid initiation of appropriate broad -spectrum antimicrobial therapy in response to suspected meningitis especially in infancy is critical to optimize outcomes. We aimed to report bacteria in CSF of children with suspected meningitis.
Methods: Children 28 days old- 18 yrs. who received a LP in the Paediatric wards of Federal Teaching Hospital Gombe had their CSF analysed in the facility between 2000 and 2019
Results: There were 3395 Lumbar punctures performed among 21862 children older than 28 days to 18yrs admitted. The lumbar puncture rate was 0.15/patient admission. LP was done in 1999(59%) males and 1392 (41%) females. CSF was clear/colourless in 2420(); Turbid in 247(), xanthochromic 290(), bloody 438(). Gram stain: no bacteria seen 3259(); Gram Negative Diplococci 68, Gram positive Diplococci 31; Gram Negative bacilli,19(), Gram positive cocci in singles 10; Gram positive cocci in chains 5(); Gram positive cocci in clusters 5(). CSF Wbc; none in 2651();0-5,345();5-10,121 ();10-35,158(),35-100,60(); >100wbc 63(). CSF culture Meningitides 46(40%); *Strep pneumoniae* 22(19%), *Staph aureus* 10 (8.6%); *H. Influenzae* 9(7.8%), *Klebsiella* 6(5.2%); *Strep pyogenes* 5(4%); *E. coli* 4(3.4%); *Pseudomonas* 3(2.6%). 48% of isolates were in turbid CSF; 23% Xanthochromic, 16% clear and 13% in bloody CSF. Two leading pathogens in each age group :>28 days-1 yrs. *NM* 16, *SP* 7; 1-5yrs *SP* 9, *NM* 4; 5-10yrs *NM* 11, *SP* 3; 10-18yrs *NM* 15, *SP* 3.
Conclusion: N. meningitidis and S. *pneumoniae* are leading causes of meningitis in all age groups outside the neonatal period in our facility.

INF-084

Treatment failure with artemisinin-based combination therapy among Nigerian children: A case series

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Background: Malaria treatment failure is inability to clear parasitaemia after antimalarial administration. There are reports of treatment failure with artemisinin-based combination therapy (ACT) in Nigeria but few reported among children. We report three paediatric cases of treatment failure with ACT admitted at a private tertiary hospital in Nigeria.All three were 'under-fives' admitted for open-heart surgery, burns injury and cerebral malaria respectively. They had symptomatic *P.falciparum* infection but one had mixed *P.falciparum* and *P.vivax* infection.
Case presentation: Cases1 and 2 were initially given oral Artemether-Lumefantrine while Case3 received intravenous artesunate. Despite appropriate antimalarial drug compliance, all still had fever with parasitaemia. They subsequently received 21 doses of quinine with improvement within the first 24hours of therapy, and were fever free even at fourth week of follow-up.
Discussion: This is a report of malaria treatment failure among paediatric in-patients. All the patients were initially given artemisinin-based medications as first-line treatment according to WHO recommendation. The poor responses to this may be due to various factors including use of poor-quality medicine. This emphasises the need for molecular analyses of artemisinin-resistance in Nigeria. Quinine, is an antimalarial that has been in use for over a century with limited resistance profile. Perhaps the WHO recommendation of artemisinins as first-line antimalarial may have preserved the effectiveness of quinine in treatment of malaria.
Conclusion: Although ACT drug resistance was not established, poor drug quality may have contributed to treatment failure. There is need for pharmacovigilance of anti-malarials in Nigeria.
Keywords: Artemisinin, Quinine, Malaria, *Plasmodium vivax*, Treatment failure

INF-085

Trends in rifampicin resistance among children with presumptive Tuberculosis in the Pre-COVID and COVID-era

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Background/Aim: Publications on COVID-19's impact on the global tuberculosis (TB) burden are from adult cohorts, paediatric data are lacking to inform decision. We compared the TB trends in southern Nigerian children in the pre-COVID-19 and COVID-19 era.
Methods: This was a retrospective, cross-sectional study of early morning sputum/gastric washing or stool samples from children with presumptive TB evaluated using Xpert MTB/RIF in a tertiary hospital from January 2016 to May 2022.
Results: Of the 20,589 screened for presumed TB in the pre-COVID-19 and the COVID-19 era, only 1,104 (88.7%) of 1,245 children had complete data for analysis. In the COVID era, a significantly higher number of children(68.4%) were presumed to have TB ($p<0.001$). The overall incidence of MTB notification by Xpert MTB/RIF during the study period was 6.4%. The incidence of MTB in the pre-COVID-19 era was 24/349 (6.9%), slightly higher than the COVID-19 era (47/755; 6.2%), $p >0.05$). The annual trends of MTB notification peaked (15.7%) in 2019 (pre-COVID-19), then plummeted to 5.3% in 2020 (COVID-19 era), and reached its lowest(3.8%) in the first half of 2022, ($p< 0.001$). The overall incidence of Rifampicin-resistant TB (RR-TB) was 2.8% among the MTB notified cases, all occurring in the COVID-19 era.
Conclusion: This study found a significant decline in MTB notification and the emergence of RR-TB in the COVID-19 era. This calls for an urgent need to re-prioritize global efforts at controlling childhood TB if the set target of ending TB by 2035 will be met.

INF-086

Association between hematological parameters, splenomegaly and malaria parasitemia among children living in rural Southwest Nigeria

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Introduction: Malaria still poses a huge burden in Africa. The hematological findings in malaria vary but these frequently include anemia. Hematological abnormalities may be associated with splenomegaly. This study aims to describe the association of malaria parasitemia and splenomegaly with hematological indices of children in rural Southwest Nigeria.
Method: This was a community-based cross-sectional study conducted among children aged 1–15 years in Southwest Nigeria. Participants were examined for splenomegaly by palpation and blood samples obtained for malaria parasitemia by microscopy, full blood count (FBC), red cell morphology and hemoglobin (Hb) genotype. Data were analysed using IBM SPSS version 25. Multiple logistic regression analysis was done to identify the predictors of anemia among the participants.
Results: There were 256 participants; 78(30.5%) had malaria parasitemia, 31(12.1%) had splenomegaly, and 109(42.6%) had anemia; 42(38.5%) had malaria-related anemia. The predictors of anemia were the male gender (OR: 1.8; 95% CI: 1.1–3.0; p=0.031), presence of malaria parasitemia (OR: 1.8; 95% CI: 1.0 – 3.1; p=0.007) and presence of splenomegaly (OR: 3.2; 95% CI: 1.4–7.4; p=0.044). Participants with malaria parasitemia and splenomegaly had significantly higher mean red cell distribution width (RDW) (p<0.050). No other FBC indices were significantly associated with either malaria parasitemia or splenomegaly. Majority of those with malaria parasitemia (66 of 78) had the Hb Genotype AA.
Conclusion: The presence of malaria parasitemia, splenomegaly and male sex predict anemia. Targeted and effective malaria control could address at least one-third of childhood anemia cases. The RDW is a useful malariometric parameter for malaria epidemiologic studies.
Keywords: Anemia; Hematological indices; Malaria; Malariometric parameters; RDW; Splenomegaly

Nephrology

NEP-087

Early detection of acute kidney injury using serum cystatin C in children with severe malaria at federal medical centre, OWO

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Introduction/Aim: Acute kidney injury (AKI) in severe malaria is underestimated due to reliance on the use of serum creatinine that is froth with several limitations for its diagnosis. Serum cystatin C, a novel biomarker for AKI, is devoid of these limitations but its use in children with severe malaria has only received scant attention. This study was aimed at comparing the prevalence of AKI detectable using serum Cystatin C, Kidney Disease: Improving Global Outcome (KDIGO) and World Health Organization (WHO) criteria in children with severe malaria, to determine the risk factors for the occurrence of AKI as well as the accuracy of serum cystatin C in the early diagnosis of AKI.
Methods: This cross-sectional study involved 126 children aged 1 to 15years with WHO-defined severe malaria. Acute kidney injury was defined using the KDIGO and WHO criteria as well as serum cystatin C level of >0.95mg/l. The serum creatinine and cystatin C levels were assayed using standard laboratory procedures and data analysis was done using SPSS version 23.
Results: The prevalence of AKI was 38.9% using serum cystatin C, 23.8% using KDIGO and 11.9% using WHO criteria. When compared with KDIGO and WHO criteria, serum cystatin C had a sensitivity and specificity of 80% and 73.9%, 100% and 69.4% respectively.
Conclusion: Serum cystatin C detected more AKI than WHO and KDIGO criteria, although it has less specificity than the afore-mentioned criteria. It is therefore recommended as a suitable marker for early detection of AKI in severe malaria.

NEP-088

Pattern of kidney disease among children admitted in a tertiary health institution in south west Nigeria-A 7 year review

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Background: Kidney diseases in children are gradually

been reported more with increasing awareness in a developing country like Nigeria. Previously there was dearth of data on childhood kidney disease and this could be attributed to the fact that Paediatric Nephrology was a relatively new sub specialty when compared with adult nephrology.

Objectives: The aim of this study was to draw attention to the pattern of kidney disease among children admitted in our hospital over a 7- year period, the treatment interventions given and the outcome.

Patients and Method: following ethical clearance from the institution, the data of all cases of Paediatric renal diseases admitted in the hospital from February 2015 to February 2022 were retrieved and analyzed. The data obtained was analyzed using SPSS version 16. Descriptive statistics showing frequencies and percentages were used. The Independent Samples T-Test was used to compare mean age of both male and female patients. Chi -Square Test was used to explore relationship between categorical variables

Results: There were 102 cases of paediatric renal diseases which constituted 1.7% of the total patients (6014) admitted over this period. Fifty nine (57.8%) of these renal cases were male while forty three (42.2%) were female. The age range of the patients was 1month to 16 years. The highest number of kidney diseases was reported among the school age children, 44 (43.1%) of the total number with kidney disease while the least figure was recorded among the newborn and infants. The most common childhood renal disease reported was urinary tract infection, 31 (30.4%), this was followed by acute kidney injury (AKI), 25(24.5%) from various causes such as hypovolaemia, sepsis and haemoglobinuria. The various treatment modalities offered included medications, dialysis and surgical interventions. Eighty two (80.4%) of those admitted were discharged to the Nephrology clinic after clinical improvement while 4 (3.9%) of them left against medical advice. Six(5.9%) of the total number of children with renal disease died and 10 (9.8%) were referred.

Conclusions: The prevalence of renal diseases among children admitted as reported in the study was 1.7%, with school age children more affected. Urinary tract infection was most the common renal disease seen in the studied population.

Keywords: childhood renal diseases, urinary tract infection, dialysis

NEP-089

Percutaneous kidney biopsy (PKB) and the histopathologic patterns of kidney diseases in children: an observational descriptive study at a south-east Nigerian tertiary hospital

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Background/Aim: Kidney biopsy remains the best standard for kidney tissue analysis. Although PKB is an invasive procedure, it is an indispensable part of interventional nephrology for accurate diagnosis, selection of appropriate therapy and prognostication of kidney diseases. With improvement in expertise among Pediatric Nephrologists, data on procedure outcomes are now being documented. We aimed to describe the outcomes in a five-year practice of kidney biopsy in our facility.

Methods: An observational descriptive study on the PKB performed in our facility from 2017-2022. The focus was on the patients' clinical profile, indications for biopsy, the adopted procedure, and the histopathologic findings.

Results: A total of 69 patients had PKB, 40 (58.0%) were males, 29 (42.0%) were females. Sixty four (92.7%) had the procedure at the age of $\geq$ 10 years while five (7.2%) at the age of $\leq$ 7 years. The patients' pre-biopsy mean systolic and diastolic blood pressures were 111.20 ± 16.93 and 74.64 ± 12.69 mm Hg, respectively. Their eGFR was 119.27 ± 52.78ml/min/1.73m^2. The most frequent indication was steroid resistance (39/69, 56.5%). FSGS was the commonest histopathologic finding (38/69, 55.0%).

Conclusion: Outcomes of PKB are adjudged successful. The histopathologic patterns highlight FSGS as the major cause of steroid resistance in childhood nephrotic syndrome.

NEP-090

Prevalence, pattern and predictors of uti amongst children with cerebral palsy in Lagos, Nigeria

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Background/aims: Cerebral palsy (CP), a permanent disorder of movement and posture resulting from a non-progressive injury to the developing brain, is associated with increased risk of urinary tract infections (UTI) due to urinary dysfunction (UD). UTI is more likely to be recurrent or persistent, but unrecognised and untreated, in *children with CP* (cCP), with consequent increased risk of chronic kidney disease and mortality. However, there is paucity of report on its burden globally. There is thus need to determine the burden and predictors of UTI among cCP to guide early diagnosis and interventions.

Methods: We cross-sectionally enrolled 82 cCP aged 2-12 years, and 82 age- and sex-matched healthy controls, from the Paediatric Neurology Clinic, LASUTH. We obtained socio-demographic data, assessed gross motor function using the Gross Motor Function Classification System (GMFCS) score and collected urine samples (catheter specimen for cCP and clean-catch specimen for controls) for standardised culture and sensitivity.

Results: The prevalence of UTI in cCP and controls were 22% and 8.5%, respectively. The commonest aetiological agents in cCP were *Escherichia coli*, *Staphylococcus aureus* and *Proteus mirabilis* while in controls *Escherichia coli* was the predominant organism. The prevalence of UTI increased with worsening motor severity (GMFCS I-II: 12.5%; III-V: 24.1%)

Conclusion: UTI is common in children with CP, occurring more amongst those with moderate-severe motor dysfunction, possibly reflecting worsening bladder dysfunction or neurogenic bladder. Children with CP, especially those with worse motor dysfunction, may benefit from routine screening for UTI followed by appropriate interventions.

NEP-091
The development and progress of a Paediatric Renal Registry in Nigeria

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Background: Major advances in the management of medical conditions are primarily achieved through randomised controlled trials. In situations where these are not feasible, registry data and serial audits have proven invaluable. This is particularly pertinent for children in Nigeria where financial constraints limit treatment and the true burden of disease is unknown.
Objective: To create a Paediatric Renal Registry to examine the demography of renal disease in Nigeria.
Methods: Hospitals with the potential to provide tertiary paediatric nephrology care were identified. A renal Registry committee was formed to oversee the process. A database structure was designed with online form-based data entry into a secure website (PRRAfrica.org). Specific data is collected on patients with chronic kidney disease (CKD) and Acute Kidney Injury.
Results: Data collection began in September 2019. Delays in obtaining ethical committee approval for data collection (despite the anonymisation of data) have been a great hindrance. COVID-19 greatly impacted data collection due to low hospital attendance. Centres had problems with data collation because of heavy workload and limited staff. Despite this, over the first 2 years, 621 patients with CKD have been entered by 12 centres from 4 geopolitical zones. Of these, 57% had glomerular diseases, 24% had Congenital Anomalies of the Kidney and Urinary Tract. (CAKUT)/obstructive uropathy, 4% CKD of unknown aetiology. 112 patients (18%) were in CKD stages 4 or 5 (78, stage 5) but only one patient had been transplanted and 9 were on chronic dialysis. Data collection is ongoing.
Conclusions: Despite challenges, it is possible to collect registry data in Nigeria, Glomerular diseases are the commonest problem in Nigerian children, followed by CAKUT/Obstructive uropathy. Because Renal replacement therapy is rarely affordable, the mortality is high.

NEP-092
The outcome of severe acute kidney injury is dependent on the clinical phenotype in paediatric Lassa virus disease

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Background/Aim: Acute kidney injury (AKI) is frequent and associated with poor outcomes in paediatric LVD but published data to guide recommendations on its treatment are scarce. We herein report our experience of the impact of the clinical phenotype on the response to haemodialysis and hospital outcomes of AKI stage 3, the stage associated with most fatalities.
Methods: Descriptive analysis of the clinical presentation, response to treatment and outcomes of 17 cases of paediatric LVD with AKI stage 3 treated between January 2018 and December 2022. We staged AKI using KIDGO criteria and classified the clinical phenotypes into types I and II as described previously and compared their characteristics using Fisher's Exact test with $p < 0.05$ taken as significant.
Results: 5 (29%) children had type I and 12 (71%) type II AKI stage 3 and 4/5 versus 5/12 ($p = 0.367$) had access to haemodialysis. Overall mortality was 0/5 versus 11/12 ($p = 0.002$) while mortality was 0/4 versus 4/5 ($p = 0.079$) among those with access to dialysis and 4/5 versus 7/7 ($p = 0.833$) among dialyzed versus non-dialyzed patients with type II AKI stage 3. Bleeding (0/5 versus 12/12; $p<0.001$), septic shock (0/5 versus 7/12; $p = 0.082$), encephalopathy (0/5 versus 10/12; $p = 0.007$) and a high viral load (0/3 versus 6/8; $p = 0.121$) was associated with type II AKI.
Conclusion: We conclude that haemodialysis could improve survival in type I but not in type II AKI without additional interventions targeted at the other pathophysiologic derangements.
Key Words: Acute kidney injury; Clinical phenotype; Haemodialysis; Illness severity; Paediatric Lassa virus disease.

Neurology

NEU-093: "I usually face different challenges": caregivers' perspective to the care of children with cerebral palsy

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Introduction: Cerebral palsy (CP), a developmental disorder of childhood has numerous and changing demands on the affected child and their caregivers. Thus, we explored the pathway to diagnosis, challenges, coping strategies, and recommendations of parents/caregivers of children diagnosed with CP.
Methods: We conducted a qualitative study using three focused group discussions involving eighteen parents/ caregivers of children with CP. The study was conducted at the Paediatric Neurology Clinic of the Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife.
Results: The participants' age ranged between 26 to 60 years with a female preponderance (88.9%). The majority described a relative ease of diagnosis of their child, and only a few had a challenging journey to diagnosis. Lost work hours and financial constraints were some of the economic challenges experienced by the participants. Reduced sleep quality, body aches, and falls were the health challenges. They experienced stigma and verbal abuse from family, places of worship and their neighbor hood. One mother says: "In my shop when they noticed my child had challenges, customers stopped coming…" Inadequate healthcare facilities, unavailability of prescribed medications, and the need for multiple clinic attendance were challenges faced in accessing healthcare. Coping strategies include relief from medical interventions, natural remedies, the use of mobility devices, special schooling and family support. They recommended support from Government Agencies, improved social support, home services and empowerment of parents/caregivers.
Conclusion: Caregivers of children with CP are faced with myriads of difficulties. There is a need for more focused interventions to help caregivers cope.

NEU-094
A rare case of Jaevons syndrome

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Background/Aims: Jeavons syndrome or Eyelid myoclonia with absences is a rare form of idiopathic generalized epilepsy that has been reported in childhood with no documented cases in Nigeria in literature. It was first described in 1977. It is characterized by eyelid myoclonia with or without absences, eye-closure induced electroencephalography paroxysms, and photosensitivity and rarely, generalized tonic clonic seizures. We report a 5 year old boy with features of Jeavon's syndrome who presented at the University College Hospital, Ibadan.
Case Report: We reviewed OA, a 5 year old boy who presented at our facility with a 6 week history of generalized tonic clonic seizures lasting about 2 minutes with post-ictal sleep of about 30 minutes. These were initially occurring fortnightly and subsequently had begun to occur daily. Initial EEG done showed background continuous slowing and slow delta activity in the awake state. This was consistent with generalized encephalopathy and sodium valproate was commenced. Seizure frequency improved for a few weeks to occasional weekly events. However, seizure semiology evolved to involve repetitive jerky movements of the eyelids, accompanied by transient impairment of consciousness for about 5-10 seconds. These occurred several times during the day with occasional myoclonic jerks involving both upper limbs. Child was hospitalized for further investigation and seizure control. A repeat video-EEG showed 2/sec spike and slow wave activity following hyperventilation and photic stimulation in keeping with Jeavons syndrome. Levetiracetam was commenced immediately with an excellent response.
Conclusion: Jeavons syndrome is a rare form of epilepsy in children which is frequently under-reported and unrecognized. Early and appropriate diagnosis is key to successful management.

NEU-095
An Assessment of the Nutritional Status of Under-Fives with Epilepsy in Zaria, North West Nigeria

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Background: Nutritional disorders occur in children with epilepsy and they contribute to the poor health outcomes in these children. An assessment of the nutritional status of the children will inform treatment and preventive strategies against reported nutritional disorders.
Aim: To assess the nutritional status of under-fives with epilepsy attending the Ahmadu Bello University Teaching Hospital (ABUTH), Zaria.
Method: It was a cross sectional comparative study. Subjects (Under-fives with epilepsy attending the Paediatric Neurology Clinic in ABUTH, Zaria) and controls (Under-fives without epilepsy attending the Out-Patient Department Clinic of ABUTH, Zaria) were administered a structured questionnaire. Data obtained included: Socio-demographic, dietary, epilepsy, anthropometric (Weight, height, head circumference and mid arm circumference measured using conventional standards) status of subjects and controls. Data was analyzed using Epi info version 7 software.
Results: Ninety-One (91) subjects and 90 controls participated in the study. The prevalence of wasting, underweight, stunting, and over nutrition in subjects were 22.0%, 22.0%, 25.3%, and 2.2 % respectively. These findings were not significantly different from the findings in the controls ($p>0.05$).
Younger age group (those less than 24 months old), female gender and presence of neonatal seizures were sig-

nificantly associated with wasting ($p<0.05$). Neonatal seizures and use of traditional medication were significantly associated with underweight while use of traditional medications and frequent seizures were significantly associated with stunting ($p<0.05$).
Conclusion: Nutritional disorders are present in under-fives with epilepsy. This study underscores the need for early, adequate and orthodox seizure treatment and prevention as well as nutritional surveillance in under-fives with epilepsy.

NEU-096
Case series on psychogenic non-epileptic seizures in adolescents

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Background: Psychogenic Non-Epileptic Seizures (PNES) can be described as paroxysmal events that involve alteration in motor activity or behaviour resembling epileptic seizures but are not associated with electroencephalographic abnormalities. They usually arise from an underlying psychological problem. We present 2 cases of PNES in female adolescents.
Case 1: B.F is a 14-year-old adolescent who first presented at the neurology clinic 3 years ago on account of 2 episodes of seizures. The working diagnosis was psychogenic seizures. She however defaulted from care with no interventions. There were no further complaints until this presentation on account of recurrent seizures (4 episodes) of 3 weeks. She was initially managed for generalised tonic clonic seizures. Her Electroencephalography (EEG) and other investigations were however normal. Further review revealed that she was a victim of sexual bullying by a fellow school mate. She also suffered from insomnia, anxiety and had suicidal ideation. The diagnosis was then reviewed to Psychogenic Non-Epileptic Seizures. She commenced cognitive behavioural therapy and counselling with reduction in frequency of episodes.
Case 2: O.E is a 14-year-old girl who presented to the emergency room with sudden onset of abnormal body movement of 20 hours. Initial considerations were Idiosyncratic drug reaction, Acute dystonic reaction and Psychogenic Non-Epileptic Seizures. Her Electroencephalogram was normal. The other investigations were normal apart from the FBC which showed Leucocytosis. Further review revealed sleep deficit (4 hours per night) on account of the school workload and pressure to be on the 'honour roll' at school. She is undergoing counselling and continues to make significant improvement.
Conclusion: PNES are not uncommon in our environment and can present a serious diagnostic challenge in the absence of EEG services.

NEU-097
Clinical and Developmental Profile of children with an autism spectrum disorder in Lagos

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Background: Previous studies have mainly explored the clinical features and management of children with Autism Spectrum Disorders (ASD) in Nigeria. This paper aims to determine the developmental profile of children with an autism spectrum disorder.
Methods: It is a retrospective descriptive study where clinical data were obtained, and findings of developmental assessment carried out in 35 children with ASD aged 18 to 72 months were obtained within a two-year period. Children diagnosed to have Autism Spectrum Disorder are those who meet the DSM 5 diagnostic criteria. The developmental assessment was carried out with Malawi Developmental assessment tool and Basic developmental assessment tool.
Result: Male: Female ratio was 3:1, the average at diagnosis was 39 months, 40% of children with ASD had a positive family history of ASD, and 57% had a global developmental delay (GDD) with an average developmental quotient of 60.8. The language and social domains were most affected.
Conclusion: A high proportion of children with ASD have GDD. Developmental quotient places GDD as a mild global developmental delay; hence appropriate and timely intervention confers a good prognosis.
Keywords: Autism Spectrum Disorder (ASD); developmental profiles; global developmental delay (GDD).

NEU-098
Developmental Characteristics of Under-five Children in Ile-Ife, South-western Nigeria: a pointer to the need for early detection and intervention

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Background: Developmental disorders remain undiagnosed in about half of children until school entry age. This is particularly worse in developing countries where there are no standard tools for developmental screening and limited resources for the optimal management of the late complications of developmental disorders. This study aimed to assess the developmental characteristics

of children aged 0-60 months and the prevalence as well as the predictors of developmental disorders in these children

Methods: This study was carried out among children aged 0-60 months, at the Urban comprehensive health centre, Eleyele, Ile-Ife, Osun State. Developmental screening was conducted on all the participants using the Ages and Stages Questionnaire (ASQ)-3. The chi-square test of association was used to identify associated categorical factors with developmental delay at bivariate level. These were entered into a logistic regression model.

Results: We studied 477 under-5 children with a mean age of 22.1±15.9 months and a male-to-female ratio of 1.2:1. The prevalence of developmental delay was 10.9%. This comprised of delay in the communication domain (21;4.4%) gross motor domain (9;1.9%), fine motor domain (17;3.6%), problem-solving domain (21;4.4%), personal-social domain (14;2.9%). Delay across multiple domains was present in 17(32.7%) of those with developmental delay. The factors associated with developmental delay were: place of delivery, previous hospital admission and the number of children within the family (p= 0.033, 0.035 and 0.017 respectively).

Conclusion: Routine developmental screening is very important to aid early intervention for developmental delay especially in low-resource settings. Further studies among at-risk children, especially in infancy is recommended.

NEU-099

Childhood seizures: assessment of knowledge, attitude and home interventions among patients attending a paediatric outpatient clinic

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Background: Seizure in children can occur at any time and place. Proper first aid management during seizures would protect the individual from harm.

Objectives: To assess knowledge of seizure disorder and first aid interventions rendered at home for seizures.

Methodology: This was a descriptive cross-sectional survey conducted from June to December 2021 among caregivers in a Paediatric outpatient clinic.

Results: Out of 218 respondents, the commonest source of information on seizures was from friends and relatives(73.2%). Fever was the commonest known cause. Only 15(6.9%) recognized seizure as a neurological disorder. Jerking of the body(199(91.8%) and clenching of the teeth(174(79.8%) were the commonest recognizable symptoms. The majority said seizures were contagious (176(80.7%) and children with seizures should not go to school 187(85.8%). The overall knowledge score was poor with a mean of 42±12.7%. Negative attitudes towards persons with seizures included avoidance 19 (8.7%), isolation from playing with peers(15(6.9%) and hiding the child from the public(17(7.8%).

Among 85(39%) who had offered home interventions during seizures, common interventions were putting palm kernel oil in the mouth(56(65.9%) while only 25 (29.4%) took the child to the hospital or laid him down away from harmful objects 25(29.4%). Practice of home intervention for seizures was good on only 11(5.0%).

Conclusion: Knowledge and first aid home interventions for seizures is poor among caregivers in this study. It is recommended that standard first aid management of seizures should be taught both in schools and at the community level.

NEU-100

Knowledge of Neurodevelopmental disorders and willingness to use gene and stem cell therapy among doctors in Nigeria

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Background: Information on knowledge of neurodevelopmental disorders (NDDS) among doctors in Nigeria is sparse. This study evaluated the knowledge of neurodevelopmental disorders among doctors in Nigeria and their willingness to use gene/stem cell therapy.

Methods: The study was cross-sectional and conducted among doctors practicing in Nigeria. A semi-structured questionnaire (Google form) was used to obtain relevant data, which was analysed using STATA 16.0, with level of significance for tests of association set at $p < 0.05$.

Results: Of the 186 participants in the study, 56 (30.1%) were paediatricians, 29(15.6%) general practitioners, among others. Awareness of NDDs was noted among 185/186 (99.5%) participants, while types of NDD known were autism spectrum disorders (180/186, 96.8%) and Fragile X syndrome (89/186, 47.3%). The causes of NDDs were genetic (180/186, 96.8%) and spiritual (8/186, 4.3%). Treatment options noted include

cognitive behavioural therapy (142/186, 76.3%), speech/ learning therapy (142/186, 76.3%), psychotropic medications (100/186, 53.8%), and gene therapy (38/186, 20.4%). For diagnosis, 172/186 (92%) participants knew only clinical methods. Treatment approaches used include antipsychotics (83/186, 44.6%), psychotropic medications (77/186, 41.4%), cognitive behavioural therapy (78/186, 41.9%), and no idea in 43/186 (23.1%). Only 31/186(16.7%) participants had a special neurodevelopmental clinic in their centres. Only 111/186 (60%) participants would use gene/stem cell therapy if available. Institution of practice significantly influenced willingness to use gene/stem cell therapy (p =0.013).
Conclusion and recommendation:Knowledge of neurodevelopmental disorders among participants was poor. The facility of practice influenced acceptability of gene/ stem cell therapy. We advocate the establishment of NDD clinics in tertiary facilities.

NEU-101
Neuro-Developmental Status of Children (6 Months-5years) with Congenital Heart Defects in Lagos, Nigeria

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Background/Aims: Children with Congenital heart defects (CHD) are now living longer due to earlier diagnosis and surgical intervention. The better survival in these children now accentuates their extracardiac complications; one of these is the neurodevelopmental outcome which is of profound personal and societal costs. The study assessed the neurodevelopmental status and documented the prevalence and characteristics of neurodevelopmental delay in children with CHD.
Methods: This cross-sectional study involved eighty-five children aged six months to 5 years with CHD and age and gender-matched children as controls. A pretested interviewer-based questionnaire and targeted physical examination were carried out. After that, neurodevelopmental assessment using Malawi Developmental Assessment Tool (MDAT) was performed on the children.
Results: Neurodevelopmental delay was observed in 54 (63.5%) children with CHD. Thirty-four (40%) children had a delay in two or more domains, and 10 (11.8%), 6 (7.1%), 3 (3.5%), and 1 (1.2%) had isolated delays in the social, gross motor, fine motor, and language domains only respectively. The prevalence of neurodevelopmental delay was 9.4% in the controls, and none had a delay in one or more domains; however, isolated neurodevelopmental delay in social and language domains was noted in 7(8.2%) and 1(1.2%) among them. Age, gender, and nutritional status were associated with neurodevelopmental delay, but none was predictive of neurodevelopmental delay using the multiple logistic regression.
Conclusion: This study highlights that 2 out of 3 children with CHD will have a neurodevelopmental delay. Therefore, regular neurodevelopmental assessment in children with CHD needs to identify the delay and institute prompt interventions. This information will also allow planning for special school services that these children might need.
Keywords: Congenital Heart Disease, Neurodevelopmental delay

NEU-102
Nutritional Assessment in children with Cerebral palsy attending the Paediatric Neurology Clinic, University College Hospital, Ibadan

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Background/Aims: Nutritional assessment is critical to the healthcare of all children. Children with neurodisability are at an increased risk of feeding difficulties, growth failure and malnutrition. Limitations with measurement of anthropometric measures make nutritional assessment in this population difficult. This study aimed to evaluate the feeding profile and nutritional status of children with cerebral palsy (CP) attending the paediatric neurology clinic of UCH Ibadan over a 3 year period.
Methods: This was a cross-sectional study. Children and adolescents with CP attending the paediatric neurology clinic of the University College Hospital were enrolled using the CNSN National CP registry. Nutritional history explored the presence of feeding difficulties while anthropometric parameters assessed included weight, height/length, mid-upper arm circumference, occipitofrontal circumference and tibial length. Nutritional status was defined by weight for age z-scores using the WHO Anthro Plus tool.
Results: Two hundred and fifteen (215) children were enrolled. 134 (62.8%) were male, ranging from 3 to 240 months. Eighty seven (40.5%) caregivers reported that their wards were unable to eat and drink efficiently and seventy seven (35.8%) children were unable to feed without choking. Seventy (32.6%) children had normal weight, 32 (14.9%) were moderately underweight, 105 (48.8%) were severely underweight and 8 (3.7%) were overweight. There was a significant relationship between the severity of motor disability and the severity of undernutrition (0.002).
Conclusions: Two thirds of children with CP seen at the UCH are undernourished. Presence of severe motor disability is a major risk factor for feeding difficulties and malnutrition in children with CP.

NEU-103

Paroxysmal non-epileptic disorders among children and adolescents in Ibadan

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Background: Paroxysmal non-epileptic disorders (PNEDs) are a heterogenous group of disorders characterized by clinical episodes similar to those of epileptic events but not accompanied by abnormal electrical discharges in the brain. These can be classified as physiological and psychogenic and include movement disorders, sleep disorders, hypoxic ischaemic events, migraine associated disorders and psychogenic seizures. Few reports exist in Nigeria.
Aims: To describe the incidence and clinical characteristics of PNEDs among children presenting at the Paediatric Neurology clinic of UCH, Ibadan.
Methods: This was a retrospective cross-sectional study conducted at the Paediatric Neurology Clinic from December 2021 to November 2022. Children with a diagnosis of PNED who had been reviewed by the paediatric neurologists and confirmed by electroencephalography (EEG) were identified and clinical characteristics documented.
Results: Twenty one children were identified out of 1768 children who attended the paediatric neurology clinic giving an incidence of 19 per 1000 within 1 year. They were aged 60 to 192 months. Twelve (57.1%) were females and 9 (42.9%) were males. Ten (47.6%) children had psychogenic seizures, 8 (38.0%) had motor tics, and one (4.8%) each had tremors, shuddering attacks and migraines.
Conclusion: PNEDs are not uncommon in Nigeria and may pose a diagnostic challenge in the absence of EEG services.

NEU-104

Pattern and Outcome of neurological emergencies admitted into the Children Emergency Ward in a Tertiary Hospital in Port Harcourt.

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Introduction: Neurological emergencies are life-threatening central nervous system disorders with significant contributions to morbidity and mortality rates among children. The sequelae may be irreversible and have great impact on the quality of life of the affected.
Aim: To identify the morbidity pattern and outcome of children admitted with neurological emergencies into the Children Emergency Room (CHER) of our institution.
Material and methods: A 4-year retrospective study was carried out in the CHER. Data on demography, diagnosis, duration of admission and outcome of children with neurological disorders were extracted from the CHER records and analyzed with SPSS version 24.
Results: Of the 3040 children admitted into the CHER, 364(12%) aged 0-15 years had neurological emergencies, commoner among males(59.3%) and children less than five years(70.9%). Meningitis(40.2%) and febrile convulsion(28.2%) were the commonest. Raised intracranial pressure(17.4%) and head injury(25.5%) were significantly more prevalent among children older children. The mortality rate was 61(16.8%) and occurred more among adolescents(30.6%). All the mortalities took place within the first 48hours of admission, more so among children with head injuries (46.5%) and neonates with perinatal asphyxia(95%), ($p < 0.05$).
Conclusion: Neurological emergencies are common with meningitis(40.2%) and febrile convulsion (28.2%) being the commonest. The mortality rate was high, especially in the first 24 hours of admission and mainly from perinatal asphyxia and head injury. Efforts to prevent and education on the prevention, early identification and management of perinatal asphyxia, head injury and meningitis should be intensified and strengthened.

NEU-105

Seizures and short-term clinical outcomes in Nigerian children with West syndrome treated with high-dose prednisolone

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Background: West syndrome is a catastrophic epileptic encephalopathy and treatment in resource-limited settings could be quite challenging.
Aims: To determine seizure outcomes and response to high-dose prednisolone therapy in a cohort of children with West syndrome.
Methods: A prospective observational study. Infants diagnosed with West syndrome over a period of 18 months were admitted and placed on 40mg daily dose of prednisolone, with an increase to 60mg if indicated. Diagnosis was based on clinical history, video recordings of events and hypsarrhythmias on electroencephalography. All were prospectively followed with daily weighing, urinalysis, blood pressure monitoring, blood sugar and seizure diary till discharge and post-discharge. Outcome variables of interest were seizure remission, normalisation of EEG and adverse reactions to prednisolone.
Results: A total of 18 children were enrolled. Mean age at seizure onset and diagnosis were 4.81(2.1) and 11.8 (5.8) months respectively ($p<0.001$). The leading causes of West syndrome were severe perinatal asphyxia (46.2%) and congenital brain malformation (23.1%). Thirteen (72.2%) children attained total seizure freedom. Six (46.2%) of the 13 children who attained complete

seizure freedom required an increase in daily dose of prednisolone from 40mg to 60mg to attain remission. Median time to complete seizure freedom was 6.0 days. Longest seizure-free period at time of discharge ranged from 6 to 17 days. Adverse reactions to prednisolone in the cohort were mild and self-limiting.
Conclusion: High dose prednisolone represents a cheap and cost-effective treatment for WS in resource-limited healthcare settings. It is well relatively well tolerated, with high rate of seizure remission.

NEU-106
Paediatric Strokes in Ibadan, Nigeria: current trends, risk factors and long term outcomes

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Introduction: Strokes in children are often misdiagnosed and many go unrecognised. Burden of paediatric strokes in Nigeria has not been accurately documented.
Objective: To determine the risk factors for paediatric strokes, current trend and long-term outcomes.
Methods: Prospective longitudinal study. All children with stroke seen over a period of 5 years were carefully followed up for a minimum period of 12 months. Diagnosis of stroke was based on the WHO case definition for stroke and neuroimaging studies.
Results: A total of 88 children; 47 males and 41 females were enrolled. Age at presentation ranged from 1 month to 15 years, with a median of 6 years. Presentation was acute in 47 (53.4%). Timing of stroke was postnatal in 72(81.8%) while 16(18.2%) had suffered a stroke in the perinatal period. The leading risk factors identified were sickle cell disease 44(50%), presumed perinatal acute ischaemic stroke 16(18.2%), infections 12(13.6%), congenital heart disease 4 (4.5%) and Moyamoya disease 4 (4.5%). Stroke was ischaemic in 75 (85.2%). The case fatality rate was 6.8%. Haemorrhagic stroke conferred an increased risk of mortality (P<0.001). Sixty seven (76.1%) had significant residual motor disability, 18 (20.5%) had dropped out of school and were completely dependent on caregiver for daily living. Stroke due to SCD was associated with a significantly increased risk of recurrence(P<0.001).
Conclusion: Sickle cell disease remains the leading cause of stroke in Nigerian children. Strokes due to infections and perinatal acute ischaemic strokes are major contributors. The attendant disability is associated with high school drop out rates.

NEU-107:
Sleep problems among children with cerebral palsy and their caregivers in Ile-Ife: a mixed-methods study.

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Background: Sleep problems have been reported as common in children with cerebral palsy (CP). However, the effect of sleep problems in CP children on caregivers has not been well studied. We aim to describe sleep problems in children with CP and their caregivers and explore the perception of the caregivers.
Methods: A hospital-based, cross-sectional, mixed-method research conducted at the Neurodevelopmental Clinic of OAUTHC, Ile-Ife. The quantitative study was questionnaire-based, using the Sleep Disturbance Scale for Children (SDSC) and Pittsburg Sleep Quality Index (PSQI) for the children and their caregivers respectively. The qualitative approach entailed three focused group discussions (FGD) involving eighteen caregivers using a pre-tested FGD guide. Quantitative data were analyzed using IBM SPSS Statistics 25 while qualitative data were transcribed, coded and managed using ATLAS.ti Software.
Results: A total of 67 CP-caregiver dyads were studied. There were more boys than girls (1.09:1) and more female caregivers (89.5%). Short sleep duration was observed in 50% of children < 2 years, 36% among preschool children, and 10.5% of school-aged children. Sleep problems (SDSC>40) occurred in 34% of CP children and poor sleep quality in 39% of caregivers. Sleep difficulties in children with CP manifest as difficulty initiating sleep, frequent night awakenings and snoring. Their caregivers experienced short nighttime sleep duration. One mother said: “It affects my sleep, health and work. It affects everything about me”
Conclusion: Sleep problems in children with CP affect the well-being of their caregivers. Interventions targeted at both the children and their caregivers are needed.

NEU-110

A rare case of Bechet's disease in 12-year-old Nigerian girl at the Ahmadu Bello University Teaching Hospital, Shika, Zaria

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Introduction: Bechet's disease is a rare systemic vasculitis that involves small, medium and large blood vessels. It is rare in sub-Saharan Africa and seldom occurs in children. Here we present a 12-year-old girl who presented with classical features of Bechet's disease within a span of three years and is being followed up with good outcome.
Methods: The case folder was summarised and the relevant literature were reviewed.
Results: A 12-year-old girl presented with two weeks history of painful mouth rashes, high grade continuous fever, headache and multiple convulsions. The mouth rashes were of varying sizes and a combination of vesicles, and papules, ulcers and involved the floor of the mouth, the tongue, palate and the lips. The convulsions were generalised tonic-clonic, associated with impairment of consciousness level, irrational talks, visual hallucinations, insomnia, and blepharospasm. Markers of chronic inflammation; C-reactive protein and erythrocyte sedimentation rate were markedly elevated. The child has had previous history similar mouth rashes eight month prior to presentation which lasted for about three weeks and resolved spontaneously.She subsequently had up to ten episodes similar mouth rashes with different episodes associated with varying degrees of genital ulcers and skin rashes over a span of two years. There were no symptoms involving the eyes. Pathergy test was positive. She was diagnosed of Bechet disease based on the international classifications criteria (paediatric) for Behçet's disease, 2015.
Conclusion: Although Bechet's disease is rare in sub-Saharan African children, it does occur. There is, therefore, the need for high index of suspicion for early diagnosis and prompt treatment. Importantly, paediatrician need to always consider the fact that distribution of symptoms and signs of Bechet's occur in both time and space.
Key words: Behcets disease, African child, high index of suspicion.

Pulmonology:

PUL-111

Integrated Sustainable childhood Pneumonia and Infectious disease Reduction in Nigeria (INSPIRING) through whole system strengthening in Jigawa, Nigeria

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Background/Aims: Child mortality remains unacceptably high, with Northern Nigeria reporting some of the highest rates globally (e.g. 192/1000 live births in Jigawa State). Coverage of key protect and prevent interventions, such as vaccination and clean cooking fuel use, is low. Additionally, knowledge, care-seeking and health system factors are poor. Therefore, a whole systems approach is needed for sustainable reductions in child mortality. We aimed to test such an approach.
Methods: We did a cluster randomised controlled trial, in Kiyawa Local Government Area (population ~230,000), Jigawa State, from January 2021 to December 2022. Clusters were defined as primary government health facility catchment areas. 32 clusters were randomly allocated in a public ceremony 1:1 to intervention and control.
The trial evaluates a locally adapted 'whole systems strengthening' package of three interventions: i) com-

munity men's and women's groups, ii) Partnership Defined Quality Scorecard, and iii) healthcare worker training, mentorship and provision of basic essential equipment and commodities. The primary outcome is mortality of children aged 7 days to 59 months and we are powered to detect as low as a 13% difference in mortality between intervention and control. We recorded mortality prospectively using a cohort design, and secondary outcomes were measured through baseline and endline cross-sectional surveys.

Results: We report secondary outcomes related to protect, prevent and care-seeking behaviours for childhood pneumonia in Jigawa.

Conclusions: Our study will provide robust evidence of the effectiveness of community-based participatory learning and action, with integrated health system strengthening and accountability mechanisms, to reduce child mortality.

PUL-112

Pneumonia hospitalisations and case fatality rates in 3 – 24-month-olds in Nigeria from 2013 to 2020: Impact of Pneumococcal Conjugate Vaccine Ten Valent (PHiD-CV-10)

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Background/Aims: From 2014 – 2016, there was phased introduction of pneumococcal conjugate vaccine ten valent (PCV 10) in Nigeria. However, its impact on pneumonia admissions and case fatality rates among Nigerian children vaccinated in 2016 has not been determined.

Methods: We retrospectively extracted data in the period before PCV-10 introduction (3 August 2013 – 2 August 2016), and after (3 August 2017 – 2 August 2020) from the medical charts of eligible patients aged 3 – 24 months with hospitalised radiological pneumonia at the University College Hospital (UCH), Ibadan; National Hospital (NH), Abuja; and Federal Teaching Hospital (FTH), Gombe, allowing for an intervening period of 1 year. Proportions of the patients with hospitalised pneumonia and case fatality rates were determined during both periods. The results were compared using z-test, multiple logistic regression analysis and $p< 0.05$ was considered significant.

Results: Adjusted pneumonia hospitalisation rates between the two periods increased at the NH Abuja (10.7% vs 14.6%); decreased at the UCH, Ibadan (8.7% vs 6.9%); and decreased at the FTH, Gombe (28.5% vs 18.9%). Case fatality rates decreased across all the sites during the post-PCV introduction period: NH Abuja, from 6.6% to 4.4% (p=0.106); FTH, Gombe, 11.7 % to 7.7 % (p=0.477); but only significantly at the UCH, Ibadan, 2.0% to 0% (p=0.045).

Conclusions: Overall, proportion of hospitalised pneumonia cases decreased after 3 years of PCV 10 introduction into the National Immunization Programme in Nigeria. The case fatality rate during post-PCV 10 introduction decreased at all the three sites, but only significantly at the UCH, Ibadan.

Keywords: PCV-10, Childhood Pneumonia, Hospitalisations, Mortality, Nigeria

PUL-113

Pulse oximetry and oxygen services for the care of children with pneumonia attending frontline health facilities in Lagos, Nigeria (INSPIRING-Lagos)

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Background/Aim: Childhood pneumonia is a leading cause of child mortality in Nigeria and quality of care needs improvement. We aim to understand whether introducing stabilisation rooms equipped with pulse oximetry and oxygen systems alongside healthcare worker (HCW) training improves the quality of care for children with pneumonia aged 0–59 months.
Methods: We did a quasi-experimental time-series impact evaluation in seven government primary care facilities, seven private health facilities, and two government secondary care facilities in Ikorodu local government area, Lagos, from July 2020 to November 2022. Children aged 0–59 months with clinically diagnosed pneumonia were included. Intervention: 'stabilisation rooms' within participating primary care facilities, designed to allow for short-term oxygen delivery for children with hypoxaemia prior to transfer to hospital, alongside HCW training on integrated management of childhood illness, pulse oximetry and oxygen therapy. Primary outcome: correct management of hypoxaemic pneumonia including administration of oxygen therapy, referral and presentation to hospital.
Results: During our Sep-2020–Aug-2021 baseline period we recorded 122 hypoxaemic pneumonia cases (SpO2<90%), of which 12 (10%) were treated with oxygen; during our intervention period (Sep-21 to Nov-22): 66 SpO2<90%, 12 (18%) treated with oxygen (p=0.10). Fewer hypoxaemic pneumonia cases were recorded in the intervention period (66 of 1721 with pulse oximetry, 3.8%) than the baseline period (122/880, 13.9%; p<0.000).
Conclusions: A greater proportion of hypoxaemic pneumonia cases were treated with oxygen in our intervention period. Fewer cases were diagnosed hypoxaemic in our intervention period.

PUL-114
Right pulmonary hypoplasia: an incidental finding in a 12 year old nigerian girl

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Background: Pulmonary hypoplasia is a rare congenital condition that has protean clinical manifestation and may present at any age with varying severity. The condition may be bilateral while the unilateral. The bilateral variant is more likely to be diagnosed early in life. Perinatal conditions such as congenital diaphragmatic hernia, prolonged oligohydramnios, Cystic Adenomatoid Malformations are some of the secondary causes of pulmonary hypoplasia. Primary causes are rare. Diagnosis may be made early in the neonatal period especially if some of the secondary causes are identified. In some cases, diagnosis is delayed.
Plain chest radiographs and computed tomography scan of the chest are useful for diagnosis.
Case report: We report a 12 year old Nigerian girl who had recurrent respiratory infections and right pulmonary hypoplasia was found incidentally on radiological imaging of the chest. No risk factor for pulmonary hypoplasia was identified in her clinical history and she had no dysmorphic features. She had grown normally without significant impairment in health other than recurrent chest infections. At presentation, she was dyspnoeic, afebrile, had absent breath sounds in the right hemithorax and heart sounds were audible in the right hemithorax. A provisional diagnosis of pneumonia with dextrocardia was made. Chest X-ray showed homogenous opacity of the right lung with minimal lucency in the apical region. Spirometry showed obstructive pattern with no significant airway reversibility. Echocardiography showed mild pericardial effusion, moderate mitral regurgitation and severe tricuspid regurgitation. She had antibiotics for pneumonia and was followed up in clinic.
Spirometer findings.
Conclusion: There are no pathognomonic physical examination findings in pulmonary hypoplasia. However, the importance of a careful physical examination of patients cannot be overemphasized. This case highlights the importance of thorough examination and evaluation of patients especially those with recurrent complaints. Investigating the right sided apex beat which has been missed by several clinicians led to the discovery of the hypoplastic right lung.

PUL-115
Serum Electrolyte Profile of Nigerian Children with Asthma: Association with Disease Severity and Symptoms Control

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Background: The symptomatology of childhood asthma and the medications for relief and control of this disease may have direct and indirect effects on serum electrolytes of children. This study therefore aims to compare the serum electrolytes (sodium, potassium, magnesium, calcium, phosphate, chloride and bicarbonate) of children with asthma in stable state with that of their age- and sex- matched healthy controls; and relate their serum electrolytes with asthma severity and symptoms control at the Obafemi Awolowo University Teaching Hospital Complex (OAUTHC), Ile-Ife, Nigeria.
Method: Children aged 6 to 14 years with physician-diagnosed asthma in stable condition and controls were

consecutively recruited at the OAUTHC, Ile-Ife. Asthma severity and levels of symptoms controls were assessed using Global Alliance for Asthma (GINA) guidelines. Serum electrolytes of all children were assayed using ion potentiometry and spectrophotometry. These were compared to the various disease severity and the levels of asthma control as well as between the asthmatic and non-asthmatic children.
Result: A total of 210 (105 each for asthmatics and controls) children were recruited with a mean (SD) age of 9.9 (2.7) years. The majority (86.6%) of children with asthma had mild intermittent form, and 88.6% had their symptoms well controlled. Lower serum levels of potassium (15.2% vs. 4.8%; p =0.011), magnesium (21.0% vs. 16.2%; p =0.031), phosphate (4.8% vs. 0.0%; p =0.012) and ionized calcium (92.4% vs. 85.7% p =0.025) were observed in children with asthma compared to the controls. However, serum levels of chloride (23.8% vs. 11.4% p =1.003) and bicarbonate (1.9% vs. 1.9% p =1.017) were not significantly higher in the two groups. The serum electrolytes of the children with asthma were not significantly related to the severity of the asthma or levels of symptoms control.
Conclusion: Children with asthma in Nigeria had significantly lower serum potassium, magnesium, phosphate and ionized calcium when compared with their counterparts without asthma. Routine serum electrolytes assessment in children with asthma is advocated for prompt management of these dyselectrolytaemia.

Social Paediatrics

SOP-116
Health Care Workers Knowledge Related to Key Child Health Practices in Ibadan, Nigeria

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Background: Primary Health Care Workers (PHCWs) are a major source of information for caregivers on key child health practices that enhance the attainment of SDG 3:2. Knowledge of PHCWs in Nigeria about these practices however, is yet to be fully assessed. The objectives of this study was to assess the knowledge of PHCWs and associated factors related to five key child health practices in Ibadan, Nigeria.
Methods: In this cross–sectional study of 157 PHCWs' knowledge about five key child health practices namely, exclusive breastfeeding, immunisation, micro-nutrient supplementation, hygiene and prevention of malaria was assessed using a self-administered questionnaire. A score of 1 was given for each correct answer, while a total score of ≥ 60% was considered 'good'. Descriptive and inferential statistics were utilised in analysing data with the level of significance set at $P<0.05$.
Results: Overall, 92%were females, 35% aged between 40–49 years, 34.4% employed for 11-20 years and 31% were of SCHEW cadre. Fifty-five percent had attended training sessions on the key child health practices. Only 28% of the respondents had a good knowledge score on the five key child health practices. There was no significant difference in the level of knowledge and years in employment df = 4, f= 0.266, p= 0.899) and the level of knowledge and attendance at training sessions on key child health practices (T= 0.348, df=136, p=0.729).
Conclusion: Knowledge of primary health care workers on the key child health practices was sub-optimal.
Key words: child health, health care workers, knowledge and practices

SOP-117
High-Impact Medical Education in a Low Resource Setting; Basic Life Support at The Fingertips

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Introduction: Although very basic and crucial to the practice of medicine, mastery of cardiopulmonary resuscitation is very poor in many low-and-medium income countries due mainly to the lack of training facilities and expertise. For instance, in Nigeria, the average cost of basic life support training is above the country's minimum wage.
The current study was aimed at evaluating the knowledge of basic life support among senior-level medical students and doctors in Nigeria; as well as to evaluate the value of a novel teaching method in basic life support training.
Methods: The study was a prospective study carried out over a duration of one month and with two cohorts.
Each group of participants had initial assessment of their knowledge of basic life support using a questionnaire. Thereafter, a 45-minute BLS video which is a component of the Chempions training program was projected.
On completion of the video session, the same questionnaire was again administered to each group of participants. This was followed by a practical, hands-on workshop at the skills laboratory in the Anesthesia department.
Data was collected using the questionnaires and comparisons were made between the pre- and post -test responses.
Results: Seventy five medical students and 41 doctors were enrolled into this study. Overall, their knowledge of BLS and their exposure to previous BLS training were poor, but there was a significant improvement in the mean scores, and the overall performance after the video; t = 27.30, p = .000 andχ^2 = 116.01; p = .000 respectively.
Conclusion: This study reveals poor knowledge of and poor exposure to basic life support among both medical students and practicing doctors. It further reveals the value of a novel training method in improving BLS knowledge in LMICs

SOP-118

How emotional well-being of health workers impacts upon quality of care in sub-Saharan Africa

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Background: Health workers are at the core of health systems and essential to the quality of care offered to patients and their family members. Their emotional well -being influences how they cope with challenges experienced at work and engage with colleagues, which in turn contributes to resilience in the system.

Methods: To learn more about the implications of health worker emotional well-being for quality of care we conducted a literature search of papers published up to 23rd of May 2022, usingvariations of the terms emotions/ emotional well-being, health workers, sub-Saharan Africa, quality of care and neonatal unit. 19 articles met the full study inclusion criteria.

Results: Health workers experience a range of emotions at work. When sad and frustrated they were more likely to omit tasks, offer disrespectful care and have communication breakdowns with colleagues, patients and family members. When overwhelmed, they delegated tasks inappropriately, rationed care and in some cases selected to attend torelatively well off and less ill patients. Health safety incidents such as wrong dosages and non-adherence to guidelines were reported to be more likely to occur when the health workers were stressed, confused and demotivated. On the other hand, motivated health workers were able to cope better with the stress of work and to continue offering care despite the constraints of resource-limited settings.

Conclusion: The emotional well-being of health workers impacts upon the provision of care by health workers and the experience of care by patients/caregivers. Health workers need more support in management of emotions.

SOP-119

Participatory Learning and Action (PLA) groups in Jigawa, Nigeria: results from the INSPIRING mid-line evaluation

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Background: By improving participants' engagement in health-related matters, Participatory Learning and Action (PLA) interventions have potential to better health. PLA groups have been implemented in Jigawa as part of the INSPIRING (Integrated Sustainable childhood Pneumonia and Infectious disease Reduction in Nigeria) project, with the aim of improving child health.

Methods: We conducted focus group discussions with PLA groups' participants. At baseline (Jun-2021), participants described the health journeys of children in their communities, to understand health-related practices. Then, at midline (Mar-2022), we asked participants to reflect on any changes since baseline.

Results: Most participants reported improvements in: lifestyle habits (i.e. hand washing and breastfeeding practices); attitude towards healthcare (i.e. avoiding traditional herbalists, timely hospital care-seeking behaviour); relationships among community members (i.e. more unity thanks to disseminating the intervention-acquired knowledge, resources-sharing to afford care for sick children); healthcare workers' attitude (i.e. more attentive, avoiding delays in visiting children brought to the hospital); relationship between community and facility members (i.e. increased trust thanks to better communication and mutual understanding). Reported challenges deemed to limit/delay care-seeking from the hospital are lack of money and transportation means, bad road networks. More isolated communities reported fewer improvements and non-participation in some PLA activities, with one group reporting that the meetings affected the community's internal relationships: participants were perceived as privileged and not trustworthy anymore.

Conclusion: The overall positive feedback is encouraging. There is also a need to ensure more equity in implementation, to avoid incurring in a common pitfall of participatory interventions: excluding hard-to-reach groups.

SOP-120
Risk factors for suicide in an adolescent: A case report

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Background/Aim: Suicide among adolescents is becoming an important cause of mortality especially in females. Early recognition of and appropriate intervention for adolescents at risk of suicide has been shown to reduce suicidal rates. We report a case of intentional organophosphate poisoning in an adolescent highlighting the risk factors for suicide.
Case: Case A was a 13-year-old who came from a dysfunctional family. Mum was the sole caregiver, she worked out of town and A lived with her maternal aunt and her family. She was described as a difficult child who performed poorly in school. Four months prior, her routine and behaviour started to change. This progressed to going late to school and subsequently she expressed thoughts of killing herself to her friends. Her mum and caregivers thought this was all consistent with her being a very difficult child which they addressed by reprimanding her. She eventually ingested concentrated organophosphate which they used to kill rodents in the house. She concealed the ingestion until she had significant symptoms, she went on to exhibit both muscarinic and nicotinic effects and eventually succumbed to the poisoning.
Conclusion: Suicidal ideation, conduct disorder, familial factors and availability of lethal agents are established risk factors for completed suicide present in Case A. There is a need for increased awareness of these risk factors so that those at risk can have timely intervention. Furthermore, education regarding the dangers of dangerous poisons in the household as well as laws restricting its sale and distribution will reduce suicide.

SOP-121
"The Code" of Marketing of Breastmilk Substitutes: Nigeria's implementation status 2014-2022

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Introduction: The continued and aggressive marketing of breast milk substitutes and promotion of feeding bottles and teats remain major in undermining the efforts to improve breastfeeding rates because of their negative effects on a mother's choice to optimally breastfeed her child. This has been worsened by the promotion of growing up and follow-up milks, commercial complementary foods, cross- promotion, use of unfounded health and nutritional claims on their products and the creation of conflicts of interests among health workers. "The Code" of Marketing of Breastmilk Substitutes (t*he International Code of Marketing of Breast-milk Substitutes* and subsequent relevant World Health Assembly (WHA) resolutions) is a crucial tool in the effort to reduce and eliminate inappropriate marketing practices, and ensure effective promotion and protection of breastfeeding and optimal infant and young child feeding. Consequently, because of the impact of optimal Code implementation on under-five morbidity/mortality, Paediatric Association of Nigeria's Mission, and the requirements of Code Article 11 and the Conference theme, this paper seeks to sensitise conference attendees about their roles in effective Code implementation.
Materials and Methods: Data on Nigeria's Code Status implementation for 2014-2022 were extracted from the Implementation Status Reports for 2016, 2018, 2020 and 2022 and analysed for presentation
Results: Nigeria's Regulations 2005 had many provisions of the Code as Law while the 2019 Regulations scored 84% and is reported to be substantially aligned with the Code.
Conclusion: Although Nigeria's 2019 Regulations is substantially aligned with the Code stakeholder's including paediatricians support is need for its effective implementation.

SOP-122
Acne vulgaris: a distressing but often underplayed condition in adolescents

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Background and Aim: Acne Vulgaris is a common dermatological disease in adolescents. It is characterized by abnormal impaction of the follicular lumen by keratinized cells, increased sebum production and proliferation of *Cutibacterium acnes* leading to inflammation. Acne is sometimes underplayed by parents and healthcare providers as it is often considered "a right of passage" into puberty and adolescence. This may result in poor self-image and adverse psychosocial consequences in affected children. This study was carried out to determine the prevalence of acne among adolescents attending the Paediatric Dermatology clinic in UPTH.
Methods: A retrospective review of the case notes of adolescents presenting to the clinic over an 18 month period (January 2021 – June 2022) was carried out.
Results: A total of 409 children were seen in the clinic within the period under review. The prevalence of acne was 5.1%. The mean age of affected children was 13.0±1.2 years with a male to female ratio of 1.1:1. With regards to severity of acne, comedonal acne (76%) and papulopustular acne (15%) were the most common types seen. The most common medical treatments given were topical retinoids (72%), topical benzoyl peroxide (68%) and oral antibiotics (15%).
Conclusion: Comedonal acne is the most common type of acne seen among adolescents in UPTH. Healthcare providers should offer treatments when necessary so as

to limit scarring and improve self-image and psychosocial well-being.

SOP-123

College Adolescents' willingness to get vaccinated against COVID-19 disease in South- East Nigeria

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Background: Willingness to be vaccinated against COVID 19 is a burning issue that may change the course and distribution of the pandemic in the country.
Objectives: The study was aimed to determine the willingness to receive COVID 19 vaccine among college adolescents and associated factors.
Methodology: This was a cross sectional study carriedout among one thousand college adolescents in six secondary schools in Enugu. A pretested, self-administered questionnaire which was used for data collection.
Results: A minor proportion of the respondents, 13.2% were willing to receiveCOVID-19 vaccine. The respondents who were males were 1.6 times more willing to receive COVID-19 vaccination when compared with those who were females. (AOR=1.6, 95%CI: 1.1- 2.3). The respondents who were aware they could be infected with COVID 19 were twice more likely to receive COVID-19 vaccination when compared with those who felt they could not be infected. (AOR=2.0, 95%CI: 1.1-3.1). The respondents who had good knowledge of COVID-19 vaccination were 2.2 times more likely to receive COVID-19 vaccination when compared with those who had poor knowledge. (AOR=2.2, 955CI: 1.5-3.3)
Conclusion: A small fraction of college adolescents were willing to receive COVID-19 vaccine. Male gender, knowledge of vaccine and possibility of transmitting infection are predictors of willingness to receive vaccination.
Keywords: Willingness; vaccination; College adolescents; COVID 19; knowledge

SOP-124

Disclosure of sexual abuse among male in-school adolescents in Ibadan, Nigeria.

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Background: There is underreporting of child sexual abuse and it is worse with male children. This increases the obscurity of the scourge and makes intervention difficult. Identification of factors that impede disclosure of male child sexual abuse are necessary to control such abuse. This study explored disclosure of sexual abuse among male adolescents and associated factors in Ibadan, Nigeria.
Methodology: This was part of a larger study on sexual abuse among male in-school adolescents and the 137 adolescents with history of sexual abuse were included in this study. Data on the demographics of participants, and the pattern and disclosure of sexual abuse were obtained using questionnaires and these were analysed using descriptive statistics and Chi square test at α=0.05.
Results: Mean age of the adolescents was 13.8 ±2.0 years and disclosure rate of sexual abuse was 18.2%. Non-disclosure was usually due to fear (61, 44.5%) with most disclosures made to friends (13, 52.0%) and parents (6, 24.0%). Disclosures were usually to males (16, 64.0%), except disclosures to parents which was usually to mothers (83.3%). Most (17, 68.0%) disclosed within a week, including eight (32.0%) who disclosed same day. Almost half (48.0%) of those who disclosed were happy after the disclosure.
Conclusion: Disclosure of male child sexual abuse was low among this study group and fear was the most common reason why it was not made. Disclosure should be encouraged and supported as it is vital to their recovery and subsequent prevention.
Keywords: Sexual abuse, male adolescents, sexual abuse disclosure.

SOP-125

Internet Addiction among adolescents at a holiday camp in a southeastern Nigerian State

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Background: The Internet has become part of modern

daily life. There is a global concern about the Internet's harmful effects, especially addiction among adolescents. We determined the pattern and rate of internet addiction (IA) among adolescents in a faith-based holiday camp in a southeastern Nigerian state.

Methods: This cross-sectional study was conducted among adolescents attending a holiday camp in Anambra State. The internet addiction test questionnaire (IATQ) adapted from Young was used to obtain relevant demographic profiles and conduct the IAT. Data were analysed using STATA 16.0 with a significance level set at $p<0.05$.

Results: Of the 243 participants analysed, 190/243 (78.2%) were females, and the mean age was 15.8±1.7 years. One hundred and thirty-six participants had internet addiction giving an IA prevalence of 56.0%; [71/243 (29.2%) mild, 62/243(25.5%) moderate, and 3/243 (1.2%) severe IA]. Over two-thirds (68.7%) used mobile phones to surf the Internet, 208/243(85.6%) spent ≥1 hour daily online, while 28/243(11.5%) spent ≥ 3 hours daily on the Internet. More late adolescents (23/25 =92.0%, $p<0.001$) had IA than early adolescents (7/20=35.0%) and middle adolescents (106/198=53.5%), and this was statistically significant.

IA rate was higher among males (73.6%, $p=0.002$) compared to females (51.1%). On logistic regression, male gender (OR=2.67; 95 CI 1.36-5.24) and late adolescent age (OR=3.96; 95CI 1.90-8.25) were associated with increased risk of internet addiction.

Conclusion and recommendation: This study has shown an alarming rate of internet addiction among adolescents. There is an urgent need to develop and implement interventional measures to combat internet addiction and its adverse consequences.

SOP-126

Sleep quality and its relationship with school schedules and mental health of nigerian secondary school adolescents

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Background: There are reports of associations between poor sleep quality, and mental health outcomes in adolescents. However, due to the differences in the Nigerian educational system and the presence of various mental health stressors, the association with adolescent mental health outcome may be different among the adolescents. Hence, we aimed to determine the sleep quality of in-school Nigerian adolescents and its association with their schooling and mental health outcomes.

Methods: The study was a descriptive cross-sectional study. It was conducted among adolescents attending public and private secondary schools within Ife Central Local Government, Osun State, south-western Nigeria. A multistage sampling technique was employed to select study participants. The Pittsburgh Sleep Quality Index, Patient Health Questionnairre (PHQ) – 9 and General Anxiety Disorder (GAD) – 7 questionnairre were used to determine sleep quality, depression and anxiety respectively.

Results: We studied 448 adolescents aged between 10-19 years with a mean age of 15.0±1.8 years. Majority of our respondents (85.0%) had poor sleep quality. More than half of the respondents (55.1%) had insufficient sleep during weekdays while only 34.8% had insufficient sleep during weekends. Using regression analysis, school start time, depression and anxiety were independent predictors of sleep quality among the adolescents ($p = 0.049$, 0.003 and 0.027 respectively).

Conclusions: The sleep quality of the In-school Nigerian adolescents is poor and it impacts
their mental health adversely. This should be addressed with the development of appropriate interventions.

SOP-127

The pattern of substance use among adolescent secondary school students in Zaria, Nigeria

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Background: Substance use among adolescent school students affects all regions of the world and the use of conventional and unconventional psychoactive substances has remained a public health problem in our environment.

Objective: The study was to determine the types, frequency and duration of psychoactive substance use among adolescent secondary school students in Zaria, Nigeria.

Materials and Methods: A cross-sectional descriptive study and a multistage sampling method was used to select five hundred (500) subjects from ten public and private schools. Data was obtained using the adapted WHO questionnaire on substance use survey. Age range of participants was 10-19 years with a mean age of 15.9±1.98 years. Male subjects were257 (51.4%) while female subjects were 243 (48.6%) and male: female ratio of 1.1:1.

Results: Cola nut, alcohol, heavy coffee, pawpaw leaves and cigarette with a lifetime prevalence of 46.0%, 14.0%, 5.2%, 5.0% and 4.6% respectively, constituted

the commonest substances used. Tramadol (1.0%), amphetamine (0.8%), codeine (0.6%), sewage sniffing (0.4%) and cocaine (0.2%) constituted the least commonly used substances. Other substances used by respondents were Jimson weed ('Zakami') (1.4%) and petrol sniffing (2.4%) while 0.6% of respondents also used nail varnish as inhalant. None of the respondents had ever used heroin or sniffed glue.

Among the 424 respondents that used substances 45.7% had used substance daily or almost daily, 28.1% were weekly users while 26.2% were monthly users respectively. The lifetime prevalence for substance use was 84.8% and current use was 44.8%.

More males 234(55.2%) engaged in substance use when compared to female counterparts 190(44.8%) (χ^2= 17.762, p value =0.000) and this was a significant finding. However, the use of cola nut, pawpaw leaves, cannabis and nail varnish were more among female respondents.

Conclusion and Recommendation: The study has provided current pattern of substance use among adolescent secondary school students in Zaria. The study found a high lifetime prevalence and current use and has determined the various types of substance use compared to previous studies from Nigeria and other parts of the world. It has provided a baseline epidemiologic data for some unconventional substance use in Nigeria. It is highly desirable to introduce substance use prevention into the school health programme in order to curtail this challenge and its consequences among adolescent school children.

SOP-128

Voluntary discharge in pediatrics unit of different hospital settings with a focus on Nigeria

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Background: Voluntary discharge from health facilities affects all patient age groups and climates. It is also called "discharge against medical advice" (DAMA) as the decision is opposed to the desire of the physician. There is a peculiarity in pediatric patients when it comes to DAMA since the decision, in most cases, is taken without their consent. The medical consequences suffered by the patient may be grave, ranging from full recovery to death. The aim of this work is to critically analyze, through literature, the gravity of this situation in terms of prevalence, risk factors, and condition, associated ethico-legal challenges, and possible solutions in low and middle-income settings like Nigeria.

Materials and methods: A focused literature search was conducted to include studies published in Cochrane, Pubmed, google scholar and Web of Science databases between the years 2000 and 2021.

Conclusion: The focus of this review is to gain understanding of regional variations and the factors that underlie DAMA, since these will be relevant in designing interventional strategies to ameliorate the trend especially in the low and middle-income nations.

Keywords: DAMA, ethical, legal, morbidity, policy, pediatrics.

SOP-129

Is there a link between early childhood caries and the health and wellbeing of the child: an appraisal of the Sustainable Development Goal 3

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Background: The aim of the study was to map the current evidence on the association between children's health, well-being and ECC, and to make recommendations on gaps to be addressed through future epidemiological and clinical studies relevant to the SDG 3.

Methods: A scoping review was conducted. The research questions were: what are the evidences on the association between health, wellbeing and ECC; and what health and wellbeing related factors are associated with ECC. A search was conducted in October 2022 to determine the links between ECC and communicable diseases (HIV, tuberculosis, COVID-19), non-communicable diseases (diarrhoea, malaria, pneumonia), parental stress, parental caries status, smoking, universal health coverage, health financing, environmental health, access to medicines, emergency preparedness. Only English language literature and observational studies published between January 2012 and November 2022 were included.

Results: 21 studies met the inclusion criteria. The studies indicated that exposure to tobacco, household smoking, parental smoking, maternal smoking during pregnancy and postpartum were associated with ECC. HIV and URTI were associated with ECC. Also, parental severe mental illness, stress, depression, anxiety and maternal common mental health disorders were associated with ECC. Also, parents' poor oral health hygiene, high prevalence of parental of dental caries, untreated mater-

nal caries and gingival bleeding among mothers were associated with ECC. There were no studies identified on the association between tuberculosis, COVID-19, diarrhoea, malaria, universal health coverage, health financing, environmental health, access to medicines, emergency preparedness.
Conclusion: The general health and parental risk factors for poor health of the child may increase the risk for ECC. There are gaps in studies on the link between SDG 3 goals and ECC. Addressing the SDG 3 goals can improve the oral health of pre-school children, and oral health could be direct and indirect measures of SDG 3 attainment.

SOP-130
Summary of clients seen at the adolescent and social pediatrics unit of a tertiary health facility in South East Nigeria: a 3years review

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Background: It is general practice to see all pediatrics clients together in a clinic. To achieve good health and development, the adolescent should be seen in an adolescent friendly clinic where their issues can be addressed.This study was carried out to determine the pattern of cases seen among patients presenting at the Adolescent and Social Pediatrics Unit (ASP) of Alex Ekwueme Federal University Teaching Hospital, Abakaliki (AEFUTHA).
Methods: It was a retrospective study done between 2018-2020. Relevant information were retrieved from case files and entered into a profoma. Data was analyzed using SPSS version 25. Results were presented as ratios, means and proportions. A p-value of <0.005 was accepted as significant.
Results: Of 220 clients seen over the given period, mean age of clients was 10.32± 6.42(0-17) years with a 1:1.75 M:F ratio. 83.6% belonged to the lower socioeconomic class, 51.8% and 48.2% received ambulatory and inpatient care respectively.
Common diagnosis among adolescents were sexual assault 36(24.3%), acne12(8.1%),PID/STI12(8.1%), HIV12(8.1%), somatization disorder 10(6.8%), suicide attempts 8(5.4%), ethical issues8(5.4%), and psychosis8 (5.4%). Suicide attempts 8(5.4%), oppositional deviant disorders 6(4.1%), somatization disorder 10(6.8%), conduct disorder4(2.7%), and post traumatic stress disorder 4(2.7%) constituted a combined prevalence of 40 (27.1%) among adolescent clients. Sexually transmitted infections STI and HIV constituted a combined prevalence of 24(16.2%).
Conclusion: Although the retrospective nature of the review is a limitation because of poor data quality of retrospective reviews compared to prospective studies, this baseline data is useful for planning adolescent care at institutional and national level and also for advocacy for resource allocation.

SOP-131
Sociodemographic profile of psychoactive substance use among selected secondary school students in rural Nigeria

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Objectives: Use of Psychoactive substances by young people poses an important public health threat despite mass campaigns and education. There have been documentations of rise in prevalence and use of psychoactive substances by Nigerian adolescents in urban areas of Nigeria. Few reports exist on in-school adolescents in rural areas, and differences in their sociodemographic profile such as public/private school attendance, day/ boarding status and socioeconomic status of students. The study determined the rate and sociodemographic profile of psychoactive substance use among secondary school students in selected rural communities in Anambra state, Nigeria.
Methods: This was a cross-sectional study in which multistage sampling was used to select 494 students from selected secondary schools in Anambra state. Data on age, gender, socioeconomic status, student status, school category, alcohol, tobacco and intravenous drug use were obtained using pretested semi-structured questionnaires. Analysis of data was done using IBM SPSS statistics software version 20.0, frequency, percentages and means were calculated, with cross-tabulation done for variables (Chi-square and Fishers exact test where applicable). Level of significance for tests of association set at 5%.
Results: A total of 494 participants were studied of which 48.8% (n=241) were males. The mean age was 14.5 ± 1.8 years. The prevalence of lifetime use of psychoactive substance was 22.5%. Prevalence for individual substances were 21.9% (n=108), 1.8% (n=9) and 0.8% (n=4) respectively for alcohol, tobacco and illicit intravenous drugs. Neither gender {6 males (2.5%), 3 females (1.2%), p=0.890}, age {10–13 years (1.3%), 14 –16 years (2.1%), >16 years (1.7%), p=0.329}, student status {day (2.6%), boarding (1.2%), p=0.320}, social class {upper (0.9%), middle (0.6%), lower (3.1%), p=0.208 } nor school category {private (1.5%), public (2.1%), p=0.742} of students was significantly associated with smoking and respectively. More males (73/241=30.3%, p<0.001) took alcohol than females (35/253 = 13.8%) and this was statistically significant. Participants from the lower socioeconomic class (30.3%, p<0.001) had a significantly higher rate of alcohol consumption than those from the upper (11.8%) and middle classes (16.7%) respectively. Higher rate was noted

among those who attended public schools (30.8%, p<0.001) compared to those who attended private schools (13.8%). Day students (30.2%, p<0.001) indulged more in alcohol than boarding students (14.3%). There was no association between either the class (junior=22.5%, senior=21.3%, p=0.759) or age of participants (10–13 years=20.7%, 14–16 years=20.1%, >16 years=33.3%, p=0.071) and alcohol consumption. No association was found between age (0.7%, 1.1%, p=1.000), gender (male=1.2%, female=0.4%, p=0.362), social class (lower=1.3%, upper=0.9%, p=0.443), student status (day=0.9%, boarding=0.8%, p=1.000), school category (junior=0.8%, senior=0.8%, p=1.000) and intravenous drug use.
Conclusions: The rate of about 22% alcohol use by secondary school students in rural south eastern Nigeria, which is strongly associated with male gender, low socioeconomic status, day student status and public school attendance is high.
Keywords: adolescents; psychoactive; rural area; substance use

SOP-132
Childcare practices during 'covid-19' lockdown: experience of female health workers in ekiti state, Nigeria

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Introduction: Children, 0 to 10years require continuous supervision. Other caregivers including grandparents and babysitters occasionally assist working parents. The coronavirus (COVID-19) pandemic led to imposed lockdown while health workers continued working. There were limited childcare options for health workers during the lockdown. This study describes childcare and breastfeeding practices among female health workers during the lockdown.
Methods: An online survey conducted among female health workers in Ekiti State, Nigeria who cared for children aged 0 to 10years.
Results: There were 118 respondents that met the selection criteria, 63.6% in their thirties and 72.0% married to non-health workers. Each respondent had 2(2–3) children living with them; the median (IQR) age of the oldest children was 9(5–13) years. Daytime breastfeeding reduced by 2(1.9) times [t=6.92; p=0.000] during the lockdown. Five respondents stopped exclusive breastfeeding before 6months because of poor access to their babies during lockdown (p=0.016); one stopped breastfeeding at 12 months for the same reason. More children stayed at home or with neighbours during the lockdown; only two were taken to crèche. During the lockdown, most caregivers were respondents' spouses and grandmothers; nine of these spouses were also health workers. Seven (5.9%) respondents stayed at home with their children during the lockdown. Respondents suggested reduced working hours (23; 19.5%) and provision of workplace crèches (5; 4.2%) among others for childcare support during the lockdown.
Conclusion: More options should be available to health workers during movement restriction to ensure optimal care for their children.
Keywords: Female health workers; Coronavirus (COVID-19); Childcare; Breastfeeding; Ekiti

Poster Presentations
Dermatology

P02
Collodion baby, lamellar icthyosis and social Stigmatization

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Background: Ichthyosis are disorders of cornification characterized clinically by a pattern of scaling and histologically by hyperkeratosis. Babies with these conditions present as collodion babies that are covered in thick, taut, membranes with associated bilateral ectropion and eclabium. The membrane sheds over a few days to weeks after birth to reveal the true nature of the underlying condition, which may either be lamellar ichthyosis, a recessive x-linked ichthyosis, congenital ichthyosiform erythroderma, harlequin ichthyosis or a normal skin variant otherwise known as the self-healing collodion baby. Lamellar ichthyosis causes disfigurement, with attendant social stigmatization leading to psychosocial stress and trauma in families.
Cases: We present two cases of collodion babies seen in our hospital at interval of two months. The first case was considerably successfully managed in the neonatal period but social stigmatization prevented follow up with eventual demise of the baby at the age of 8 months. The second case presented late at six weeks old, due to misconception and stigmatization, and was discharged against medical advice by the parents after 48 hours of admission, despite extensive counselling.
Conclusion: Lamellar ichthyosis, though rare, is a condition that requires updated knowledge as significant attention is needed in the neonatal period. Successful

management of ichthyosis in the newborn can be achieved through directed interdisciplinary approach. However, the mitigating effect of social stigmatization and misconception about the disease, towards prompt care and outcome cannot be overemphasized.
Keyword: Ichthyosis, Collodion baby, Social Stigmatization

P04
The pattern of in-patients paediatric dermatoses in a tertiary hospital: a preliminary study

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Background: There is a marked variation in the pattern of paediatric cutaneous disorders. They include those which constitute little or no concern and severe dermatoses which are debilitating and may necessitate hospitalization. The recognition of dermatologic lesions in paediatric in-patients may help to improve diagnosis, overall management and outcome.
Aims and objectives: To determine the prevalence and pattern of dermatoses in paediatric in-patients
Materials and method: This is a prospective cross-sectional study involving children aged 0 to 15 years admitted into the children emergency ward of Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC), Ile-Ife. Information of the admitted patients were collected using a proforma, including demographic profile and characteristics of rash, if present. Data was analysed using SPSS version 25. Data is represented using descriptive statistics such as frequency distributions and percentages.
Results: A total of 105 participants were recruited with a male : female ratio of 1.1:1. 43% were of a low socioeconomic status. Dermatoses were found in 63.9% of admitted patients. The 5 most common lesions were papular urticaria, post–inflammatory hyperpigmentation , seborrheic dermatitis, cutaneous candidiasis and Tinea infections. 28.3% of those with dermatoses were diagnosed as at admission before Dermatology examination.
Conclusion: More than half of the admitted children had at least a dermatosis. The burden of skin disorders in children calls for increased awareness and thorough skin examination of every child presenting to the emergency room as it may be a pointer to an underlying disease or cause of illness.

Endocrinology

P05
Berardinelli-Seip Congenital Lipodystrophy in a Nigerian Infant: Case Report

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Introduction/Aim: Congenital generalized lipodystrophy of the Berardinelli-Seip type (BSCL)) is an extremely rare autosomal recessive disorder characterized by lipoatrophy, hepatomegaly, acanthosis nigricans, acromegaloid features and hypertriglyceridemia. In view of its rarity, we report a 7-month-old boy, with congenital generalized lipodystrophy, the BSCL type.
Case report: The patient was delivered at term, to non-consanguineous parents. Parents had observed that the child looked too mature for his age. By 5 months of age, maturity worsened, with abdomen also gradually increasing in size. Developmental milestones were attained as expected for age.
On examination, he looked older than his age with an athletic appearance. There was generalized loss of subcutaneous fat, thick scalp hair, low anterior hair line, and mandibular prognathism with macroglosia. There were large hands and feet, with prominent joints, muscular hypertrophy and phlebomegaly in both upper and lower limbs. His weight was below the 10th percentile. The abdomen was protuberant abdomen, with umbilical defect, hepatosplenomegaly, and large male external genitalia. Other systemic examinations were normal. The patient had 3 major diagnostic criteria (lipoatrophy, acromegaloid features and hepatomegaly) and 2 minor criteria (hirsutism and phlebomegaly). Diagnosis based on genetic studies could not be done due to non-availability. He would have benefited from other investigations and dietary management; however, he was lost to follow up.
Conclusion: This report highlights the fact that in low-resource settings like ours, diagnosis of such rare conditions rely on a high index of clinical suspicion. We advocate for upgrading of laboratory services to aid in diagnosing such rare diseases in our environment.
Keywords: Lipodystrophy, muscular hypertrophy, acanthosis nigricans, infant, Nigeria

P06

Diabetic Ketoacidosis in a 6 month old Nigerian Infant: A case report of clinical presentation and challenges faced during management

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Background: The incidence of Type 1 Diabetes Mellitus in children is increasing in many parts of the world, as well as in Nigeria. Most cases of Type I Diabetes mellitus have been reported in children of school and adolescent age groups. Even though an increasing incidence of diabetes mellitus is being reported in pre-school-age children, onset in infancy is uncommon.
Case presentation: We report the clinical presentation and management of a six-month-old Nigerian female infant who presented with Diabetic Ketoacidosis. The random blood glucose at admission was unrecordably high. Marked ketonuria and glycosuria were detected. She had metabolic acidosis; with HCO3 levels of 17mmol/l. White blood and neutrophil counts were suggestive of sepsis. She was successfully managed with insulin therapy and antibiotics and discharged 11 days after admission. She is currently on daily multiple dosing of insulin and her HbA1C 6month after commencement of insulin therapy is 6.2%.

P07

Premature Adrenache in a 4 year old Nigerian girl: A case report

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Introduction: Premature adrenarche refers to an early increase in adrenal androgen production that usually results in the development of pubic hair or pubarche before the age of 8 years in girls and 9 years in boys with or without axillary hair and pubertal odour, and with no other signs of sexual development
Case Report: we report a case of 4 year old girl who presented with complaint of increasing pubic hair noticed from birth with subsequent development of axillary hair and body odour of 2 years duration. Examination revealed height for age slightly below the 50th percentile and pubic hair that was at tanner stage 2. The biochemical results were within the reference limits for age and sex except for FSH and LH which were low. The serum levels of cortisol, progesterone, 17-OH progesterone ruled out any form of Congenital Adrenal Hyperplasia. The level of DHEAS fell within the reference limits. Based on the clinical and biochemical features a diagnosis of premature adrenarche was made. Parents were counseled and child is currently on follow up in the clinic.
Conclusion: Premature adrenarche though a benign condition, in girls with LBW, require follow up due to higher risk of obesity-related metabolic disturbance.
Keywords: Premature adrenarche, four year old, girl.

P08

Right Amazia in an adolescent female – A Case Report

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Introduction: Amazia is a clinical condition where one or both of the mammary glands are absent but sparing the nipple and areola. It can be a congenital or an acquired cause. We present a female adolescent with right amazia.
Case Report: A.A is a 14-year-old girl who presented in the paediatric endocrinology clinic due to failed growth of the right breast. Left breast thelarche was at 12 years but none on the right side. The left breast has been developing well in the last 2 years but the right breast has remained prepubertal. She had neonatal mastitis which was massaged; subsequently developed an abscess on the right breast which was excised.
Examination revealed a healed scar at the inferior border of the right breast with tanner stage 1 of the right breast and tanner stage 3 of the left breast.
Pelvic Ultrasound was normal, Baseline gonadotropins were normal but the breast ultrasound showed absence of significant fibroglandular breast tissue on the right.
She is being planned for serial lipofilling by the plastic surgeon.
Conclusion: Breasts are a symbol of femininity and their deformity or absence significantly lowers the mental well-being of female patients.
Keywords: Right Amazia, Adolescent female, Neonatal Mastitis.

General paediatrics and emergency Paediatrics

P03

Kawasaki disease complicated by Acute kidney injury, transient diabetes insipidus and hypertensive encephalopathy and congestive cardiac failure in a 10-month-old Nigerian girl

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Introduction: Although Kawasaki disease is increasingly been reported, acute kidney injury, hypertensive encephalopathy and nephrogenic diabetes insipidus are among its rarest complications. Here we present a case of 10-months old girl who presented with Kawasaki disease and subsequently developed these complications and was successfully.
Methods: The case folder of the patient as well as the relevant literature were reviewed.
Case Summary: The patient was a 10-month-old girl who presented with six days history of high-grade continuous fever, associated with catarrhal symptoms, bilateral eye discharge and reddening and body rash typical of Kawasaki disease. At admission, she was febrile (38.4-^{0}C), highly irritable, with bilateral non-purulent conjunctivitis and conjunctival injection. The pharynx was hyperemic with exudate, tonsils were enlarged. Initial throat culture yielded streptococcus pneumoniae while blood culture was negative. The lowest Serum creatinine recorded at admission was 64umol/L which tripled by the end of the first week (232umol/L). Accordingly, the estimated glomerular filtration rate reduced from 41 to 11.34ml/min/1.73m^2. The serum creatinine normalized 16 days after admission and the egfr rose to 49.5mil/min/1.73m^2. Thirteen days into the admission, she developed severe hypokalemia and features of diabetes insipidus with her urine output reaching up to 9.6ml/kg/hr. She was commenced on human immunoglobulin, high prednisolone and high dose aspirin. The fever subsided, however, eight days later, she had multiple episodes of generalized tonic-clonic convulsions which lasted for about 3 minutes and led to loss of consciousness, at the same time she had difficulty breathing, tender hepatomegaly, and tachypnoea, and tachycardia. At this point, her blood pressure was 220/120mmhg (> 95th percentile for age and sex), her random blood sugar and CSF biochemistry and microbiology were normal. A diagnosis of hypertensive emergency with encephalopathy and congestive cardiac failure complicating Kawasaki disease was made. She was given intravenous hydralazine, phenobarbitone, diazepam immediately and subsequently placed on oral nifedipine and methyldopa. Ten months after admission her renal function and blood pressure have completely normalized. Repeat echo cardiography also showed normal cardia anatomy and function on two occasions. SARS-COV-2 infection test negative.
Conclusion: This case shows that Kawasaki Disease could present with variety of complications including acute kidney injury, systemic hypertension, and nephrogenic diabetes insipidus. Clinicians managing patients with Kawasaki Disease should therefore watch out for these complications and address them promptly when they occur to improve patient outcome.

P09

Incidence, spectrum and timeliness of specialty reviews of surgical disorders at the children's emergency room of a referral hospital in Nigeria

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Introduction: Surgical emergencies constitute an important part of childhood illnesses encountered in the children's emergency room (CHER). Timely surgical specialty review is critical for adequate evaluation and management of such children. This study evaluated the incidence, spectrum and timing of specialty reviews of surgical emergencies in our CHER.
Methods: This study adopted a descriptive, cross-sectional design. Data were collected using a semi-structured questionnaire eliciting patient's diagnosis, duration of admission at time of reviews and management. Early review was defined as review before the fifth hour on admission in CHER. Binary logistic regression analysis was done to identify variables associated with timely surgical reviews using odd ratio (OR) and 95% confidence interval (C.I.). The level of significance of each test was set at $p < 0.05$.
Results: The incidence of surgical emergencies in CHER in this study was 5%. The mean age of affected children was 6.8±6.3 years. The commonest surgical disorders were Intussusception (23.8%), Intestinal obstruction (19.0%), Appendicitis (9.5%), Typhoid perforation (9.5%) and ruptured viscous (4.7%). The mean± (SD) surgical review time was 6.2±3.7 hours. Determinants of early surgical review include: female gender (OR= 0.160, 95% C1: 0.650-0.393; p=0.0001), vomiting (OR=4.00, 95% CI: 1.367-11.703; p=0.011) and abnormal sonographic findings (OR= 0.125, 95% C1: 0.043 – 0.360; p=0.0001).
Conclusion: Surgical disorders encountered in CHER are reviewed within a few hours. Early consultation and prompt diagnostic radiologic investigations may shorten surgical review times.
Keywords: surgical disorders, surgical reviews, children emergency room

P10

Inhalational meperfluthrin poisoning from mosquito repellent fumes in a 14-year-old male adolescent: a case report and literature review

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Background: Mosquito repellent is a common means of mosquito control in different parts of the developing world where mosquito-borne diseases like malaria, are endemic. Mosquito coils are slow-burning sticks that emit smoke containing one or more mosquito repellents, commonly pyrethroid compounds like meperfluthrin. Adverse effects following inhalation of smoke from a coil containing meperfluthrin include liver damage, renal impairment, and lung injury reportedly in rats. In humans, there is documented little or no side effect to inhaled meperfluthrin. We report a case of meperfluthrin toxicity following inhalation of mosquito coil fumes.

Case presentation: a 13-year-old boy who developed multiple episodes of vomiting, respiratory distress, altered consciousness, following overnight inhalation of mosquito repellent fume containing 0.25% meperfluthrin. He slept on a mat with the burning coil placed at a 20cm distance from his face. He received initial care of oxygen, steroids, and antibiotics at a private hospital before being referred 24 hours later to the teaching hospital. At presentation, his Glasgow Coma Score was 12, but otherwise normal CNS finding. He developed irrational talk, violent behaviour and insomnia three days after the initial symptoms. He was managed with supportive care with intravenous fluids, oxygen, and diazepam. He was discharged home fully conscious and oriented, memory intact with no residual neurologic deficit one-week post-admission.

Conclusions: Meperfluthrin poisoning is rare at low doses but excessive inhalation of meperfluthrin may lead to neurotoxicity and pulmonary toxicity.

P11

Maternal Care, a road map to the eradication of NOMA

Justin Udochukwu Leo[1], Opeyemi Opeyemi Victor[2], Effiong Itoro Marvellous[3]

1. Justin Udochukwu Leo: University of Jos, Plateau State (BDS, in view).

2. Opeyemi Opeyemi Victor: Ahmadu Bello University, Zaria (BDS, in view).

2. Effiong Marvellous Itoro: University of Benin, Edo State (BDS, in view).

Background: Noma, a neglected NTD with a 70-90% mortality is a fulminating gangrenous lesion of the mouth and face which despite being preventable remains a health care burden in the noma belt regions with Nigeria being a leading nation in the statistics of the disease. Women are known to be the primary caretakers and play a key role in the etiology of diseases in children, the scale up of sustainable development goals (SDGs) that empower women enables a better response in disease prevention. The aim of this study is to identify the role of maternal care in the prevention and eradication of Noma.

Methods: The project embarked on an opinion poll of student advocates passionate about noma response with Nigeria as a case study. The study was carried out via online platform with respondents engagements solely online. The opinion poll sought to know their perspective on the link between maternal care & noma, the gaps and possible recommendations about the role of maternal care and it's scale up by stakeholders in the response to noma and it's eradication. The opinion poll was well structured and reviewed by a team of experts.

Results: The results showed that they is a significant link between maternal care and noma as mothers are the primary caretakers; low maternal education and gender inequality can tremendously contribute to increase the risk of poor oral health by low immunization uptake response, poor oral hygiene, risk for malnutrition and poor feeding practices, poor uptake of health care services, close childbirth spacing, low household income and even poor child supervision. Most of the maternal related risk factors for noma are sociobehavioural decimals that can be effectively addressed to prevent noma. Hence, the scale up of SDG 6 among other relevant SDGs to empower women can be a road map to the eradication of noma.

Conclusion: NOMA and indeed other diseases affecting children has been linked with insufficiency in maternal care. Improving maternal care as well as intentional efforts aimed at scaling up relevant SDGs that empower women by all stakeholders could be a possible lead to reducing incidence of medical harm to children and breach the gap in the eradication of the scourge called noma.

P12

Palatability and Acceptability of Emzor Pharmaceutical Flavoured Zinc Sulphate in the Management of Acute Diarrhoea in under-five children in Lagos, Nigeria

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Background: Acute diarrhoea remains one of the leading causes of morbidity and mortality among children under the age of five years, especially in sub-Saharan Africa, The WHO now recommends the use of paediatric zinc as an adjunct to oral rehydration therapy for the management of acute diarrhoea in children. The strong after taste of zinc make masking of the taste in zinc formulation a necessity. The objective of this study was to determine the acceptability of the Emzor Pharmaceutical Industiries formulated dispersible paediatric zinc sulphate tablets in children aged less than five years with acute diarrhoea.
Method: The study was a prospective, multi-centre, open label, interventional study among children with acute diarrhoea aged 3months to 59 months in three health facilities in Lagos. Zinc tablets, 10mg or 20 mg per day for 10 days were prescribed for children aged 3-5 months and 6- 59 months respectively. Participants were followed up for a period of 10 of 14 days. A participant diary incorporating a smiley face hedonic scale was used to record study events daily. Data collected were analyzed using SPSS version 25.
Results: Two hundred and ninety-five participants were recruited from two government and one private health facilities. Majority was male (160; 54.2%) and aged less than 18 months (154; 52.2%). Adherence and acceptability of the zinc formulation were assessed in 261 participants (88.5%) who returned their participant diary. Adherence levels of ≥ 80% was attained by 89.3% of all participants (87.4% and 91.3% respectively for 3-17 months and 18-59 months). Mean adherence was 93.03% (95% CI: 90.95 – 95.10), and 91.93% ([88.82 - 95.03] and 94.21% [91.46-96.95] for 3-17 months and 18-59 months respectively. Adherence levels did not vary significantly by gender or age.
Majority of participants (77.0% [78.5% and 74.6% in 3-17 month and 18-59 months respectively) found it acceptable with a taste score of ≤3.0 (60%).Acceptability did not vary significantly by age or gender. Vomiting occurred at least once in 18.8% of participants. However, the rate of vomiting decreased from 18.8% on Day 1 to 0.5% by Day 10.
Conclusion: The study findings show that the dispersible flavoured zinc sulphate tablet by Emzor Pharmaceutical Industries is acceptable to children aged 3 months to 59 months for the management of acute diarrhoea. Future studies comparing palatability and acceptability palatability of the Emzor Pharmaceutical Industries formulated dispersible Paediatric zinc sulphate tablets with other zinc tablets in children is warranted.

P13

Profile of picu admissions in a tertiary centre in Nigeria

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Background: A Paediatric Intensive Care Unit (PICU) is a unit where critically ill children, usually the most ill patients, are cared for. This study describes the admissions and the impact of the services provided in a new four bedded Paediatric Intensive Care Unit (PICU) over a 6-month period in a tertiary hospital in Nigeria.
Methods: A retrospective review of admissions was done to obtain information on the reason for admission, care received, duration of stay and outcome.
Results: There were 43 admissions, 27 males and 16 females, aged 40 days to 14 years. Ten were infants and 30 were under 5 years. Thirty-one (72.1%) were admitted for respiratory failure, 16 (37.2%) for coma, 10 (23.3%) for circulatory collapse, 3 (6.9%) patients had upper airway obstruction and a patient had intractable seizures. There were 17 post-operative patients (9 Cardiac and 8 Neurosurgery), 11 had sepsis while 5 had pneumonia. Other cases were status epilepticus, aspiration pneumonitis, head injury and poisoning. Twenty-two (51%) were intubated while 21 (49%) received non-invasive ventilatory support. Twelve patients required invasive blood-pressure monitoring, others received continuous non-invasive monitoring. Seventeen (39.5%) required central vascular access, 6 serial Echocardiography and 3 patients RRT (peritoneal dialysis). Duration of admission was 5 hours to 79 days. Three patients were discharged, 14 (32.5%) died, others were transferred to appropriate units.
Conclusion: Paediatric intensive care is an emerging field in Nigeria with potential for positively impacting child mortality. Efforts geared towards its establishment and sustenance is critical.

P14

Using the Human Centered design to investigate perceptions on how to improve vaccine communication among vaccinators in Kano, Nigeria

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Introduction: Vaccination saves 2-3 million children worldwide annually, leading to the eradication of some infectious diseases. Universal vaccine coverage, however, is still low in many LMIC. In Nigeria, there is a 3% reduction in national number of zero children from 2019 to 2021. Drop out from DPT1 to DPT3 at the national level is 14%. An earlier survey by PAN and AAP showed communication issues around adverse events following immunization and off-schedule immunization. Based on these findings, Human centered design was used to investigate perceptions on how to improve vaccine communication among vaccinators in Kano.
Aim: To identify perceptions of Paediatricians and other vaccine providers on how to improve discussions on off-schedule immunizations, adverse events following immunization and vaccine side effects with care givers.
Methods: Human centered, qualitative design was used to collect data by conducting focus group discussions with paediatricians and vaccinators. Open-ended semi-structured FGD guide was used with brain storming, fish bone analysis and prototyping. Audio recording and transcription was done. Data analysis, guided by grounded theory was done using manual inductive analysis.
Results: Fifty-nine participants (29 doctors,30 vaccinators) participated in the FGD. All work in public health services. Major themes identified were: lack of accessibility, poor immunization knowledge by mothers, misconceptions, occurrence of adverse events following immunization and lack of empowerment.
Conclusion: Improving communication skills of providers, and supporting mothers by improving their awareness on vaccine importance will go a long way to improve off schedule immunizations and vaccine communication among vaccinators.

Haematology and Oncology

P15

Burden of childhood sickle cell disease on caregivers: a cross sectional study at the chantal biya's foundation in Yaounde

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Background: Sickle cell disease, one of the most common inherited blood disorders with several clinical manifestations which puts at risk not only the patients, but also the caregivers (parents, guardians). Identifying and understanding the factors associated with the multifaceted strain perceived among caregivers of children with sickle cell disease will allow us to assess and improve the process of caregiving burden in caregivers of children with SCD.
Methods: A cross-sectional analytic study over 03 months was done, and data collection was consecutive using the Zarit Burden Interview (ZBI). Data was analyzed usingEpi Info version 7.2.2.6 and the statistical significance was set at p-value <0.05.
Results: One hundred and seventy-four caregivers were included in the study among which more than half (77.59%) were female caregivers. Almost half (49.42%) of these caregivers were assessed to have moderate to severe burden with mean score of burden being 42.78. Factors associated to the care givers burden were job loss (p=0.01, OR=2.2 at 95% CI [1.1-7.3]) and social stigmatization (p=0.0022, OR=2.8 at 95% CI [1.5-5.5]).
Conclusions: Our findings revealed that about 50% of caregivers of sickle cell children deal with some psychological and socioeconomic issues with a ZBI score of moderate to severe burden. Social stigmatization and job loss were the main factors fueling the burden on caregivers, thus emphasizing on the importance of Multicomponent interventions in the lives of these children and their parents will go a long way to improve quality of life.
Keywords: Sickle cell disease, burden, risk factors

P16

Childhood cancer treatment uptake and outcomes in two paediatrics oncology units in North-western Nigeria

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Background/Aims: Limited access to treatment, late presentation and treatment abandonment have mitigated successful treatment of childhood cancers in the low-middle income countries. The present study was conducted to understand the treatment uptake and outcomes at two paediatric oncology centres in north-west Nigeria.
Methods: An 18-month retrospective review of hospital records was conducted. Case notes of patients with a confirmed diagnosis of cancer were analysed.
Results: There were 94 patients across the two centres aged 0.5 - 14 years, (mean 6.1 $\pm$ 3.5SD), male: female ratio 1.9:1. The duration of hospital stay was 1-89 (mean 21.3 $\pm$ 19.3SD) days. The diagnoses were nephroblastoma 25(26.6%), leukaemia 18(19.1%), retinoblastoma 16(17.0%), lymphoma 15(16.0%), rhabdomyosarcoma

12(12.8%), neuroblastoma 2(2.1%) and 1(1.1%) each of Haemangiopericytoma, Hepatoblastoma, Hepatocellular carcinoma, Parosteal osteosarcoma, Soft-tissue sarcoma and Testicular carcinoma.
The patients received chemotherapy 86(91.5%), surgery 25(26.6%) and radiotherapy 7(7.5%). Nephroblastoma had the most surgeries 18(19.1%), followed by 2(2.1%) each in retinoblastoma and rhabdomyosarcoma, and 1 (1.1%) each for neuroblastoma, leukaemia and soft tissue sarcoma. Radiotherapy was done in 4(4.3%) of nephroblastoma and 1(1.1%) each of rhabdomyosarcoma, haemangiopericytoma and neuroblastoma.
There were 8(8.5%) who did not receive treatment; two died before treatment, while six refused treatment. Four others were referred to another facility to continue treatment. Overall, abandonment was 35(37.2%), mortality 33(35.1%), and compliance was 26(27.7%).
Conclusions: The study shows that treatment abandonment and mortality were quite high among these patient groups. This calls for a need to improve the uptake of cancer treatment through strengthening of the services for childhood cancer in the region.

P17
Clinical severity of children attending the Paediatric sickle cell clinic of a tertiary institution in Southwest Nigeria

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Background/Aims: Sickle cell disease (SCD) is the commonest haemoglobinopathy worldwide. Its effects are pan-systemic, affecting every organ in the body, hence the manifestations are variable and diverse. This study aimed to determine the severity score of children attending the Paediatric sickle cell clinic of a tertiary institution using a set of clinico-laboratory parameters.
Methods: This was a prospective study that involved children attending the Paediatric sickle cell clinic of Bowen University Teaching Hospital, Ogbomoso, Nigeria. A semi-structured questionnaire was used to obtain relevant socio-demographic data. The clinical severity of the population was determined by a set of clinical and laboratory parameters.
Results: A total of 100 children with SCD who were in their steady state were included in the study, the under-5 age group constituted about a fifth of the study population, while the adolescents constituted the majority. There were more males 59 (59%) than females 41 (41%), giving a male-to-female ratio of 1.4:1. Concerning severity, most 63(75.9%) of the children had mild disease, a quarter had moderate, while none of them had a severe clinical disease. The mean ±SD severity score was 5.20 ±3.20.
Conclusion: Although most of the children in our study had a mild severity score, regular assessment of the clinical severity index of a patient with sickle cell disease is still recommended.

P18
Renovascular hypertension in a sickle cell disease Patient

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Introduction: Renovascular hypertension (RVH) is implicated in 5-25% of hypertension in children. It results in alteration of the renin-angiotensin mechanism secondary to an obstructive vascular lesion, reducing blood flow to the kidney. RVH from renal artery stenosis/ occlusion secondary to Vaso-occlusive crises (VOC) is a rare occurrence that was observed in our patient.
Case presentation: A 2-year-old sickle cell anaemia patient diagnosed at 8 months old, referred from a private hospital with a 2-week history of continuous, high-grade fever; bilateral leg pain and difficulty in breathing. Patient had been transfused with genotype AA blood prior referral.
At presentation, he was febrile (Temperature= 40.5ºC), in respiratory distress, mildly pale, with bilateral pitting pedal oedema, SPO2 of 86% in room air. Had Stage 2 Hypertension (128/80 mmHg). Initial diagnosis was VOC with acute chest syndrome secondary to sepsis to rule out Acute kidney injury.
There are bilateral patchy opacities on chest X-ray, leucocytosis of 23,000 cells/mm^3 and packed cell volume 30%. Urinalysis, blood chemistry and urine output were normal. Renal doppler ultrasound showed elevated Resistivity Index (RI) and Systolic/Diastolic ratio (SD), suggestive of bilateral renal artery stenosis. He was managed with intravenous antibiotics, fluid and oral antihypertensive, had 2 sessions of partial exchange transfusion with subsequent normalization of blood pressure and RI on repeat ultrasound. Child was discharged after remarkable improvement
Conclusion: Routine blood pressure monitoring and renal doppler ultrasound is essential in younger children with sickle cell anaemia to forestall potential complications from RVH.

P19

Spectrum of structural hemoglobin phenotypes seen in Bingham university teaching hospital Jos, Nigeria

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Background/Aim: Structural haemoglobin abnormalities are inherited genetic disorders, that commonly affects the βglobin chains. There are about 269 million people in the world that are carriers of abnormal haemoglobin gene. It is said that approximately 25% of Nigerians have haemglobin S mutation in their gene. The aim of this study was to determine the spectrum of haemoglobinphenotypes seen in Bingham University teaching Hospital Jos.
Methods: This was a retrospective study. Information was extracted from the data of the haematology department of the hospital, where all the request for haemoglobin phenotype was done from January 2021 to June 2022. The haemoglobin strip machine was use to determine the different phenotype.
Results: A total of 1,102 subjects were studied. The male to female ratio was 1.1 to 1.0. The highest age group that requested for haemoglobin phenotype are aged greater than 21 years with 58%, followed by aged between 6-20 years with 26%. The incidence of normal haemoglobin AA was 766 (69.5%), AS 271 (24.6%), SS 60 (5.4%), SC 3 (0.3%) and AC 2 (0.2%). There was a significant difference between age and the result of phenotype AA, AS and SS, chi square=143, p= <0.001.
Conclusion: The commonest phenotype found among patients receiving care in BHUTH is AA, followed by AS, then SS. The number of adults testing for their phenotype are more than children. The high incidence of hemoglobin AS shows that there is need to increase awareness on people knowing their genotype early, so as to decrease the incidence of abnormal genotype like SCA.
Key words: Haemoglobinopathy, Sickle cell Anaemia, Phenotypes

Infectious diseases

P21

Effects of sociodemographic factors and adherence to antiretroviral therapy on the mucocutaneous manifestations of HIV infected children in a south eastern community

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Background: Socioeconomic status and adherence to antiretroviral therapy are key factors in determining the quality of life for individuals infected by the Human Immunodeficiency Virus .especially in those with mucocutaneous disorders. Mucocutaneous disorders can be the initial presenting feature and may serve as prognostic marker of Human Immunodeficiency Virus (HIV) infection.
Objective: To determine if there is a relationship between mucocutaneous manifestations and sociodemographic factors, and adherence to antiretroviral medications in children attending the paediatric HIV clinic of the Federal Medical Centre (FMC) Umuahia.
Methodology: This descriptive, cross-sectional studywas carried out over a period of six months. Sociodemographic and clinical data were obtained. Diagnosis of mucocutaneous lesion was mainly clinical but where indicated, laboratory investigations were carried out. Data analysis was done using IBM SPSS Statistics version 20.0 for windows.
Result: Twenty seven (40.3%) of the sixty-seven subjects with mucocutaneous lesion were from socioeconomic class III.The prevalence of mucocutaneous lesions among children with HIV infection was 55.8%. Out of the 67 children with mucocutaneous lesions, 54 (80.5%) were on ART and 10 (18.5%) of the latter were not adherent to their medication. Mucocutaneous lesions were predominant in those that belonged to social class III (60.0%), were commoner among those that were not on ART and those who were not adherent to medication-seven though this was not statistically significant.
Conclusion: Introduction and adherence to ART medications should be encouraged in HIV infected children to avoid complications such as mucocutaneous lesions.
Keywords: Sociodemographic, adherence, mucocutaneous manifestation, children.

P22

Empyema necessitans with anterior chest wall mass due to Staphylococcus aureus in a Nigerian child: a case report

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Background: Empyema necessitans is a rare pulmonary condition described as the presence of pus in the pleural cavity with insidious extension into the surrounding soft tissue. The most common microbial aetiology of empyema necessitans is Mycobacterium tuberculosis. It is a disease of pre-antibiotics era with only a few cases being reported after the availability of highly effective antibiotics. We herein present a case of an eight year old girl with empyema necessitans with anterior chest wall mass caused by Stapylococcus aureus.

Case presentation: 8 year old girl presented with complaints of swelling on the right anterior chest wall associated with cough and worsening breathlessness of two weeks. Chest ultrasound demonstrated empyema necessitans with extension into the anterior chest wall. Ultrasound- guided aspiration of the chest wall collection revealed pus cells and surgical drainage of abscess was performed. BACTEC culture system identified the isolate of Staphylococcus aureus. She was treated with intravenous cefuroxime which was changed to intravenous vancomycin and chest tube thoracostomy drainage. After showing improvement patient was discharged and advised to take oral erythromycin based on culture and sensitivity result of the aspirate with periodic follow-up.
Conclusion: As our case demonstrates the possibility of empyema necessitians as a complication of pneumonia, paediatricians should be aware of this rare entity while treating children with pneumonia.

P23

Liver enzymes in hiv-infected children on antiretroviral therapy and treatment naïve in federal teaching hospital Abakaliki (FETHA), Nigeria

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Background: With the introduction of Highly Active Antiretroviral Therapy (HAART), persons living with Human Immunodeficiency Virus (HIV) survive longer and are now faced with the challenges of Non-Acquired Immunodeficiency Disease Syndrome (NAIDS)-related diseases. Children have a more rapid progression of HIV infection and have a longer duration of exposure to HIV and antiretroviral drugs when compared to adults, therefore may be at higher risk for the liver disease. This study assessed and compared the levels and the prevalence of deranged liver enzymes among (ALT & AST) HIV-infected children those on antiretroviral therapy (ART) and those not on ART (ART-naive) with those children who are HIV-uninfected. It also determined the severity of liver enzyme elevation and searched for factors associated with derangement in liver enzymes
Methods: it was a cross-sectional study which evaluated 112 HIV-infected children aged eighteen months to seventeen years with an equal number of gender and age matched HIV-uninfected children. Study was carried out in Paediatrics Department of Federal Teaching Hospital Abakaliki. Liver enzymes were assayed using the manual spectrophotometric methods.
Results; HIV-infected ART-naïve children had significantly higher median level of ALT compared to their HIV-infected ART and HIV-uninfected counterparts ($p < 0.001$, $p = 0.038$ respectively). HIV-infected participants had significantly higher prevalence of deranged ALT and AST 14/112 (12.50%) compared to the HIV-uninfected participants 4/112 (3.60%) with a p-value of 0.001. Gender showed significant association with elevated ALT and liver enzyme derangement was limited to had grade I hepatotoxicity.
Conclusion: HIV-infected ART-naïve children had higher levels and higher prevalence of deranged liver enzymes compared to their age and gender matched HIV -infected and HIV-uninfected counterparts. This study recommended early commencement of ART for newly diagnosed HIV-infected children to prevent and halt the direct inflammatory effects of HIV on the liver.

P24

Lumbar puncture and Bacterial Meningitis in consecutive children admissions in Federal Teaching hospital Gombe, North East Nigeria during the period 2000-2019

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Background/Aims: Lumbar puncture remains both a vital investigation and diagnostic procedure. Accurate analysis of the Cerebrospinal fluid is key in diagnosis and treatment of a variety of infectious and inflammatory diseases of the brain, meninges and spinal cord. We aimed to report Lumbar puncture performed in all children admitted over twenty-year period in our facility.
Methods: Information on all Children 0-18 years who had lumbar Puncture between 2000 and 2019 in all the Paediatric wards of the FTH Gombe were retrieved and analysed.
Results: There were 4821 LPs in 26,681 consecutive children admissions, giving a LP rate of 0.18 per patient admission. 2757(57.2%) were males; 2064(42.8%) females. >1-5yrs were 30% (1445); neonates 29.5% (1419); infants > 28days- 1year 19.3% (929), 6-9yrs 12.4% (596), 10-18yrs 9% (432). 64.7% (3124) of CSF was clear/colourless; 15.7% (758) bloody; 14.3% (691) xanthochromic;5% (245) turbid and 3 showed cob web. 76.9% (3707) had no wbc;6% (268) wbc<5mm3,15% (763) wbc>10mm3 Gram stain 95% (4588) no bacteria;1.9% (93) Gram negative diplococci;1.4% (73) Gram positive diplococci; 0.7% (34) Gram negative bacilli. 3.2% (156) of CSF cultures grew bacteria isolate. 96% (4665) had no growth. Of the isolates Neisseria meningitidis constituted 32% (50), strep pneumoniae 17.3% (27); staph aureus 11.5% (18); Klebsiella 8.3% (13) E coli 6.4% (10); H. Influenzae 6.4% (10); Pseudomonas 3.2% (5); strep pyogenes 5.7% (9); Proteus 1.9% (3).
Conclusion: Lumbar puncture per patient admission in children remains undetermined Over or under performing of LP in children in the tropics is a clinical challenge.

P25

Prevalence of malaria in children seen at the emergency unit of a teaching hospital in Makurdi North Central Nigeria

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Background: Every 75 seconds, a child under 5 years dies of malaria and many of these deaths are preventable, hence malaria continues to be an urgent public health priority. Nigeria accounted for 27% of the global malaria cases and 31% of the global malaria deaths in 2020. The prevalence of malaria in children under 5 years in Nigeria is decreasing, and nationally there was a marginal decline from 27% in 2015 to 23% in 2018. Therefore, this study examined the prevalence of malaria at the Benue State University Teaching Hospital, Makurdi
Methods: A 5 year (Jan 2018- Sept 2022) retrospective study was carried out at the Emergency Paediatric Unit (EPU). Records of all children presenting to the EPU with an assessment of malaria were retrieved and reviewed and data was analyzed using SPSS version 23.
Result: The age range of children seen was from 1 month -15 years. Male to female ratio was 1.1:1 Total admissions was 1,960 out of which 206 children had an assessment of malaria. 128 (62.1%) were tested using malaria RDT or microscopy with 69 positive cases (RDT=57, Microscopy=25) giving a prevalence of 3.5%. Classification of cases showed that 14(20.3%) had uncomplicated malaria while 55(79.7%) had severe malaria. Age distribution showed that malaria cases were more amongst children aged 3-5years (39.1%) followed by those aged 1-2years (21.7%)
Conclusion: The prevalence of malaria was 3.5% and reported cases were mostly from children under 5 years of age. Hence preventive strategies targeted at this age group must be sustained.

P26

Pattern of bacterial isolates and antimicrobial susceptibility in urine and stool of children seen at a private multi-specialty health facility in Abuja, Nigeria; a 5-year review

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Background: Bacterial infections remain a major cause of morbidity and mortality in children. The changing pattern of isolated pathogens and their susceptibility, and the growing menace of antimicrobial resistance call for more evidence on the subject matter.
Aim and Method: This was a retrospective descriptive study that aimed to document the pattern of isolated bacterial pathogens in urine and stool cultures, and the percentage antimicrobial susceptibility among children aged 0 to 17 years seen in our facility between January 2017 and May 2022.
Results: Of 543 urine samples plated, the yield was 28.5%. Of 611 stool samples, the yield was 33.4%. Females had more positive urine cultures than males (3.6:1) while the distribution of positive stool cultures was the same for both sexes. Children less than five years old accounted for most positive urine cultures (38.1%) and most positive stool cultures (75.0%). The most common pathogen isolated in urine was *Escherichia coli* (47.7%), followed by non-aureus *Staphylococcus* (25.2%). The most common pathogen isolated in stool was *Escherichia coli* (77%), followed by *Salmonella species* (21.6%). In urine cultures, susceptibility to levofloxacin, ofloxacin, ciprofloxacin, ceftriaxone-sulbactam, gentamicin, nitrofurantoin and ceftriaxone was 89.3%, 87.2%, 79.3%, 79.2%, 71.3%, 68.8%, and 64.4%, respectively. In stool cultures, susceptibility to ceftriaxone-sulbactam, levofloxacin, ofloxacin, gentamicin, ceftriaxone and ciprofloxacin was 100%, 97.3%, 91.7%, 75.4%, 72.9%, and 72.7%, respectively. Antimicrobial susceptibility in urine cultures was poor to cotrimoxazole (33.6%), amoxicillin-clavulanate (25.6%), Imipenem (25.0%), and ampiclox (0.0%); in stool cultures, the same set of drugs had 17.6%, 14.1%, 14.3%, and 28.6% susceptibility, respectively. Multidrug resistant pathogens accounted for 40.9% and 51.8% of resistant organisms in urine and stool, respectively.
Conclusions: In keeping with previous literatures, *Escherichia coli* is the most common uro- and enteropathogen in children seen in our facility. Fluoroquinolones are the most effective antimicrobials against isolated pathogens, while commonly used antibiotics such as amoxicillin-clavulanate are poorly effective. Implications for clinical management and the increasing burden of antimicrobial resistance are discussed.

Neonatology

P27

A Landscape analysis of clinical practice guidelines in newborn and child health in Nigeria

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Background/Aims: Sub-Saharan Africa has the highest neonatal and under-five mortality globally. The decline in child mortality in Nigeria is slower than global rates. The development and implementation of Clinical Practice Guidelines (CPGs) is important for strengthening new-born and childhood care and improving outcomes. It is unclear, however, which CPGs are available, whether they are evidence-informed and developed using standard methodology. This study assessed the current landscape, and quality of newborn and child health CPGs in Nigeria over a period of five years.
Methods: Search of Google and relevant websites was done. Experts were contacted to identify guidelines. Identified guidelines were screened using predetermined eligibility criteria. Data was extracted from eligible guidelines and their quality appraised using the Appraisal of Guidelines for Research & Evaluation II (AGREE II) tool.
Results: Eleven guidelines were included in the analysis. Nine were developed by the Federal Ministry of Health (FMOH) for all levels of healthcare mostly targeted at infants and neonates. The common conditions covered by the guidelines were newborn care and HIV. Appraisal using the AGREE II tool generally showed that the quality of the guidelines was limited by poor rigour of development, applicability and editorial independence (median scores- 6%, 29% and 8% respectively). Adapted guidelines scored higher than the *de novo guidelines*,
Conclusions: Development/adaptation of newborn and child health CPGs are mainly driven by the FMOH, focusing less on poverty-related diseases and target simultaneously different levels of care. Methods for CPG development/adaptation need to be improved.

P28

Active Euthanasia for Perinatal Osteogenesis Imperfecta; an Ethical Dilemma in a Tertiary Facility in South-Western Nigeria, a case report

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Introduction: The situation surrounding the care of a baby with a potentially lethal condition can be challenging, especially when parents request for the termination of baby's life to ease his suffering. We present a report of a neonate with perinatal osteogenesis imperfecta (OI) whose father requested active euthanasia.
Main clinical features: A term male neonate with multiple limb deformities and respiratory distress. He had short bowed, hypo-mineralised, deformed, multiple fractured bones, beaded ribs riddled with bony prominences (Callus formation). He also had a narrowed chest, flattened forehead, and dark blue sclerae.
Main Challenges: We were faced with the challenges of managing lethal OI and balancing the rights of parents, the rights and morals of the physician, and the best interests of the baby in decision making.
Intervention and outcomes: A multidisciplinary approach to care was implemented, with the participation.of neonatologists, geneticists/endocrinologists, orthopaedic surgeons, nurses, and social workers The patient had supplemental oxygen, IV fluids, IV paracetamol for pain relief, and IV antibiotics for suspected sepsis, while bisphosphonates was offered. The oath of practice and the existing legal framework were followed while providing a ceiling of care. He had progressive respiratory distress and multiple apnoeic episodes and died of respiratory failure on the twelfth day of life from pulmonary hypoplasia.
Conclusion: Osteogenesis imperfecta of the perinatal type is usually a lethal disease, with death often occurring within the perinatal period. The physician must, therefore, balance the parental rights, the ethics of practice and existing legal framework in decision making.

P29

Aetiology of Neonatal Meningitis in the Savanah Region of North East Nigeria Over a 20-year Period

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Background/Aims: Neonatal meningitis is devastating infection. Early diagnosis and prompt treatment are key to prevent lifelong neurological sequalae. Its manifestations are subtle requiring heightened index of suspicion. Lumbar puncture is technically challenging. We report aetiological agents causing newborn meningitis over a 20-year period in our department.
Methods: Case files of infants 0-28 days who had LP in the special care baby unit of Federal Teaching Hospital, Gombe between 2000 and 2019 were reviewed and information obtained analysed.
Results: There were 1419 lumbar punctures in 5819 newborn admissions giving a LP rate of 0.24 per newborn admission. Of the admissions, 3248 (55.8%) were males; 2571 (44.1%) were females. Of those who had LP 745 (52.5%) were males and 665 (46.9%) females. 1129 (79.6%) had LP in < 14 days of age; 286 (21%) in> 14days. CSF was clear in 542 (48%), turbid/cloudy in 35 (3%), xanthochromic 420 (37%) and bloody in 344 (30%). In Gram stain: no bacteria 1232 (86%); gram positive diplococci 19, Gram Negative Diplococci 19, Gram Negative bacilli 10. CSF no wbc 891(???), <5 (115), wbc 5-10 (15), >10-100 wbc (76), >100(24). CSF culture: no bacterial growth 1376 (97%). Of the 39 CSF isolates *Staph aureus* 8 (20%), *Klebsiella* in 7 (18%), *E coli* 6 (15%), *Strep pneumoniae* 5 (13%), *N. Meningitides* 4 (10%), *Strep pyogenes* 3 (8%) *Pseudomonas 2* (5%), *Proteus* 2 (5%), *H. influenzae* 1 (3%), *Citrobacter* 1(3%). *Staph aureus. E coli*, *Pseudomonas* were highly resistant to Ampicillin >70%; *Pseudomonas, E. coli, Citrobacter* highly sensitive to ceftriaxone and cefixime; *N Meningitidis, Strep pneumoniae, Staph aureus* were highly resistant to penicillin.
Conclusion: Gram negative and positive bacteria are aetiological agents in neonatal meningitis in our centre.

P30

Causes Of Neonatal Morbidity And Mortality In Bingham University Teaching Hospital, Jos Plateau State

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Background/Aim: Neonatal morbidity and mortality continue to be serious public health issues in developing countries, where it also has a considerable impact on the under-five mortality rate. The aim of this research is to ascertain the morbidity and mortality trends of neonates admitted to the inborn Special Care Baby Unit (SCBU) at Bingham University Teaching Hospital (BHUTH), Jos.
Methods: A retrospective analysis of the records of babies admitted into the inborn SCBU of BHUTH over an 18-month period of January 2021 to June 2022.
Results: A total of 196 patients were admitted into the inborn SCBU of BHUTH during the period reviewed and 195 (99.5%) had complete records. There were 99 (50.8%) males and 96 (49.2%) females with M: F of 1.03:1. The leading causes of admission were prematurity (51.3%), asphyxia (21.5%) and neonatal jaundice (10.8%). Nine (4.6%) infants had severe birth asphyxia, while 33 (16.9%) had moderate birth asphyxia. Twenty eight deaths were recorded over the 18-month period giving a mortality rate of 14.4%. Prematurity (71.4%) and severe birth asphyxia (17.9%) were the leading causes of death. Of all the deaths that occurred, 9 (32.1%) occurred within the first 24 hours of hospitalization, while 10 (35.7%) of them died after 72 hours of admission.
Conclusion: In our community, the neonatal mortality rate is still very high. This death rate can be decreased with the support of concerted efforts to guarantee appropriate antenatal care, close monitoring of labour, and enhanced neonatal unit facilities for newborn care.
Keywords: Newborn, mortality, morbidity

P31

Congenital Absence of Sternum in a Preterm Child

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Introduction: Sternal cleft is a rare congenital malformation that results from defective embryologic fusion of paired mesodermal bands in the ventral midline. It is usually associated with cardiac anomalies but, can occur in isolation and can be complete or partial. We report a case of superior sternal cleft and atrial septal defect in a preterm male newborn.
Case Report: A preterm male infant delivered at home, cried at birth and was admitted into the NNU at gestational age 29 weeks. Mother attempted abortion which failed. She received ANC at a private hospital. Examination at admission showed a 4 × 5cm 'U'-shaped concave

defect of the sternum (Fig 1) and baby in respiratory distress. A thin layer of skin covered the sternal cleft with visible cardiac bulge and pulsation with no other abnormalities.
The chest radiographs showed increased interclavicle distance and absence of the superior part of the sternum. Echocardiography revealed a normally located heart in its pericardium with a 3.7 mm moderate ostium secundum ASD. He was managed for prematurity and planned for primary repair of the sternal cleft.
Conclusion: A sternal cleft is a rare congenital anomaly in premature babies and usually asymptomatic. Surgery is indicated to improve respiratory dynamics and protect the mediastinal structures from direct injuries. Adequate follow-up is necessary as these patients can develop chest wall deformities such as pectus excavatum.

P32

Outcome of management of neonatal jaundice in bingham university teaching hospital (BhUTH)

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Background: Jaundice refers to the yellowness of the sclera, skin and mucous membrane. Jaundice is the result of accumulation of bilirubin as foetal haemoglobin is metabolised by the immature liver. Neonatal jaundice (NNJ) is a preventable cause of neonatal morbidity and mortality.
Aim: To assess the outcome of neonatal jaundice in Special Care Baby Unit of BhUTH.
Methodology: A retrospective analysis of records of neonates admitted to both the inborn and outborn SCBU ward of BhUTH from January to December 2018.
Results: A total number of 155neonates were admitted in 2018. Out of these patients, 42 (27%) were managed for neonate jaundice. Majority were males 26 (62%). Of the total number of patients admitted with jaundice, 24 (56%) were preterm. Jaundice was noticed in all patients within the first week of life. The three major causes of jaundice identified were, ABO incompatibility 10 (23%), prematurity 9(21%) and Neonatal sepsis 7 (16%). Prematurity with neonatal sepsis accounted for 9 (21%), Neonatal sepsis with ABO incompatibility 3 (7%), Breastfeeding Jaundice 1 (2.4%), Others 10%. Thirty five (83%) of the neonates had phototherapy only, with 7 (17%) having exchange blood transfusion in conjunction with phototherapy.
The number of days spent on admission ranged from 2 to 44 days with an average duration of stay of 12 days. None had acute bilirubin encephalopathy. One mortality was recorded in a preterm neonate signifying 2% mortality rate.
Conclusion: Majority of the patients managed for neonatal jaundice had a favourable outcome evident by non-development of acute bilirubin encephalopathy and low mortality rate of 2%.
Keywords: Neonatal jaundice, phototherapy, exchange blood transfusion,

P33

Portal vein thrombosis as a complication of neonatal umbilical vein cannulation: A case report

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Introduction: Portal vein thrombosis is a recognised complication from umbilical cannulation. Reports on this occurrence in Nigerian children are limited in literature. We report a case of portal vein thrombosis following umbilical cannulation during the neonatal period.
Case Report: The patient is a 6-year-old female child who presented to the children's emergency ward with a one-month history of recurrent fever, abdominal pain and passage of bloody stool. There was no history of ingestion of non-steroidal anti-inflammatory medication or bleeding disorder. There was history of umbilical cannulation during the neonatal period when she was managed for severe perinatal asphyxia.
This index presentation was at 6 years of age. She had been initially managed at a private health facility where she was admitted for one week, transfused, given intravenous fluids, antibiotics and omeprazole. However, a week after discharge, there was recurrence of passage of bloody stools necessitating presentation to UCH. At presentation, the significant finding on examination was pallor. An upper GI endoscopy revealed oesophageal varices secondary to Portal Vein Thrombosis. Her management also included a splenectomy. She was discharged home and on oral propranolol with caregivers counselled on the need for pneumococcal and meningococcal vaccines.
After the splenectomy, she had two episodes of passage of bloody stools requiring admission and blood transfusion.
Conclusion: Umbilical vein cannulation is a common procedure in neonatology practice. It however has possible complications which may be relatively uncommon. Paediatricians need to be aware of this and obtain this information when evaluating a patient with GI bleeding.

P34

Prevalence and risk factors of Low birth weight amongst neonates delivered in health facilities in Makurdi Benue State Nigeria

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Background: Low birth weight (LBW) is an important marker of fetal health that is predictive of mortality in childhood, stunting and adult onset chronic conditions globally. 20 million LBW births occur every year globally with 96.5% of them in developing countries. LBW contributes to 60%-80% of all neonatal deaths globally and the rates have remained high in developing countries such as Nigeria. This study therefore aimed to determine the prevalence and risk factors of LBW amongst neonates delivered in health facilities in Makurdi, Benue State Nigeria.
Method: A cross-sectional study was carried out in 8 selected health facilities at different levels of care within Makurdi metropolis. 206 neonates were recruited, weighed and examined within the first hour of life while sociodemographic data was collected using an interviewer administered questionnaire and analyzed using SPSS 23
Results: Out of the 206 neonates studied, 24 (11.7%) were LBW. Among the 24 LBW neonates, 75% (18) were term while 25% (6) were preterms. The mean weight of the LBW neonates was 2.18 ±0.18kg. The mean gestation was 38.52±1.61 weeks. Factors that were significantly associated with LBW were; gestational age at birth (p=0.028), type of gestation (p= 0.004), socioeconomic class of the baby (p=0.036), booking for ante-natal care (p=0.040), place of ante-natal care (p=0.028) and hypertension in pregnancy (p=0.033)
Conclusion: The prevalence of LBW was lower than the national prevalence and not Booking for ANC was found to be associated with increased risk for LBW. Hence, early and adequate ANC is recommended.

P35

Prevalence, pattern and outcome of neonatal admissions in a newly created neonatal unit of the national obstetric fistula centre (NOFIC), Abakaliki, Ebonyi State- a two year review

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Background/Aim: National Obstetric Fistula Centre (NOFIC) is a centre responsible for the care of patients with urogynaecological issues such as vesico-vaginal fistula. Recently a maternal and child centre was created. Clinical audit of a newly established neonatal unit is an essential pillar of clinical governance with the overarching aim of achieving quality improvement and better patient outcome. The aim of this study was to determine the pattern and outcome of all the admissions within 2-year period of establishing a neonatal unit of a tertiary centre in Nigeria.
Methods: Neonates admitted within the period of September 2020 to August 2022 were retrospectively studied. Information on the age, sex, birth weight, gestational age, anthropometry, mode of delivery, diagnosis on admission, duration of hospital stay and outcome were reviewed. Data were analysed using descriptive statistics.
Results: A total of 174 neonates were admitted during the period under review. The male to female ratio is 1:1 and mostly term babies (67.8%). The median weight, length, occipito-frontal circumference and duration of hospital stay were 3.0kg, 47cm, 34cm and 3days, respectively. The three commonest diagnoses in the setting were sepsis (24.1%), prematurity (10.9%) and asphyxia (9.2%). Majority (95.4%) of the babies admitted were delivered within the facility, 57.5% via caesarean section and 91.5% were discharged home alive.
Conclusions: The study shows that neonatal sepsis in different severity followed by prematurity and asphyxia are very common in the study setting. However, details of the mortalities recorded will require further review to seek areas of possible improvement in the future.

P36

Risk factors and outcome of preterm admissions in neonatal unit Federal Teaching hospital Gombe, North-East Nigeria

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Background and aim: Worldwide, 15 million babies are born before 37 completed weeks of Gestation and up to 18% of these births occur in sub–Saharan Africa. Preterm births contribute significantly to neonatal morbidity and mortality. In Nigeria, preterm birth rate is increasing with prematurity accounting for 33% of neonatal deaths. Risk factors associated with preterm birth delivery differs across countries and regions. This study was aimed at determining the risk factors and outcome of preterm births in Federal Teaching Hospital Gombe.
Methods: The medical records of 207 preterm Neonates admitted into the special care baby unit of Federal Teaching Hospital Gombe between January 2017 to December 2020 was retrospectively reviewed. Information retrieved were risk factors for preterm births, anthropometry, gestational age, and outcome of admission.

Results: A total of 2488 Neonates were admitted during the review period. Of these, 687 (27.6%) were preterm babies. Complete data was available for 207 preterm neonates and included in the study.
The major risk factors for prematurity were preeclampsia /eclampsia (27.5%), multiple gestation (15.9%), antepartum haemorrhage (15.5%), premature rupture of membranes (8.7%), unspecified (22.7%) and others 8.7%. About 65% of preterm babies were discharged, 24.2 % discharged against medical advice (DAMA) while 11.1% died. Babies categorized as very preterm and extremely preterm low birth weight were significantly at risk of dying (OR= 9 CI =3.3 -27.3)
Conclusion: Maternal hypertension, multiple gestation and APH were the leading risk factors associated with prematurity and outcome was significantly related to gestational age and birth weight.

P37
Risk factors and outcome of preterm births at Bingham University Teaching Hospital, Jos, North Central Nigeria

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Background/Aim: Preterm birth is a major pregnancy complication that imposes tremendous long-term medical and financial burdens on affected children, families, and the healthcare system. The aim of this study was to find out the prevalence, risk factors, and outcome of preterm babies admitted to Bingham University Teaching Hospital's inborn special care baby unit.
Methods: It was a retrospective study of the medical records of all preterm babies delivered in the hospital from January 2021 to June 2022.
Results: A total of 196 newborns were admitted during the period out of which 100 (51.0%) were preterms with gestational ages ranging from 24 to 36 weeks with a mean gestational age of 31.24 weeks (±2.78). The birth weight ranged from 650g to 2450g with a mean birth weight of 1530.22g (±414.11). There were 47 males and 53 females (M: F 0.89:1) and 63 (63.0%) were delivered via caesarean section. The duration of hospital stay ranged from 1 to 182 days with a mean duration of 13 days (±19.53 days). Preterm premature membrane rupture and preeclampsia were the two most frequent risk factors for prematurity. Jaundice was the most prevalent morbidity seen, closely followed by anaemia. The overall mortality rate was 20%.
Conclusion: Prematurity continues to be a major contributor to infant morbidity and mortality in our hospital, thus there is a need to improve the quality of health care delivery in order to improve survival rate of these newborns.
Keywords: Prematurity, morbidity, mortality

P38
Spontaneous Intestinal Perforation in neonates: 2 case reports of babies managed at the University College Hospital, Ibadan

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Background: Spontaneous intestinal perforation (SIP) is a focal bowel perforation commonly involving the terminal ileum. It is usually found in preterm babies below 1.5kg but may occur in term babies often mimicking necrotizing enterocolitis. Etiology is not fully understood but some maternal and foetal risk factors have been suggested. We present a report of two cases of SIP in preterm neonates managed at UCH, Ibadan.
Clinical Presentation and Radiologic findings: Baby 1 is the third of a set of triplets delivered vis CS at 32weeks with a birth weight of 1.95kg and normal apgar scores. Commenced on feeds on the 2nd day of life but developed abdominal distension on day 4, with clinical and radiological features of intestinal perforation by day 5. Baby 2 was delivered at 32weeks via CS, weighed 1.3kg and required bag and mask ventilation at birth. Commenced minimal enteral feeds on the 2nd day of life, developed abdominal distention 6hours later, no erythema or bluish discolouration. There were constitutional symptoms. Main radiologic finding was pnuemoperitonium with no portal gas or pneumatosis intestinalis.
Intervention and outcomes: Both were managed conservatively by NG tube decompression, antibiotics and peritoneal tube drainage. Baby 1 made full recovery after 1 week, however, baby 2 had progressive deterioration and died within 36hours of diagnosis.
Conclusion: SIP, a condition seen in preterms in the early neonatal period, should be differentiated from NEC, a close differential occuring later in the neonatal period with worse prognosis. These cases are highlighted to heighten index of suspicion.

P39
Trado - Modern ways of cord fomentation with resultant near - fatal neonatal sepsis in high brow areas of a Nigerian metropolitan city: A case series

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Background: Neonatal sepsis is a leading cause of Neo-

natal morbidity and mortality globally. It is worse in low income countries especially Sub - Saharan Africa where health facilities are not adequate and where harmful traditional practices are still ongoing. Cord formentation is one of the harmful traditional practices that can lead to fatal Neonatal sepsis.

We therefore present a case series of three newborns who were exposed to a sort of "trado-modern" ways of cord formentation despite the high socio-economic classes of their parents and adequate essential newborn care and counselling.

Aim: These case series are meant to highlight how parents of higher socio-economic class and higher level of education may still bow to the pressure of harmful cultural practices from their relatives thus exposing newborns to the dangers of illness and sometimes death.

Case series: All babies were discharged few days post adversely uneventful delivery following detailed essential newborn counselling. Specifically cord care was started using 2% chlorhexidine gel or methylated spirit.

Baby I however, had cord fomentation using electric pressing iron - heated herbs wrapped into handkerchief at intervals at home.

Baby II and III had their cord fomented using hot tooth paste heated on electric pressing iron and applied on the cord. All babies presented at different periods and subsequently developed features of severe neonatal sepsis with near fatal outcome.

Conclusion: More advocacies and parental education are still needed against harmful traditional practices in newborns.

Keywords: Cord Fomentation, Higher socioeconomic class, Newborn, Trado-Modern.

P41

Umbilical artery doppler indices in second and third trimester in normal singleton pregnancy at NAUTH, Nnewi

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Background: Doppler ultrasound was introduced into clinical obstetric practise over 20yrs ago. It is accepted that a variety of common obstetric complications such as pre-eclampsia and intra-uterine growth restriction (IUGR) have their origin in abnormal development of the placental vasculature which is reflected in abnormal Doppler velocimetry. Feto-placental endothelial cells are key regulators of angiogenesis and vasomotor tone. Feto -placental circulation is unique in that it is regulated by humoral mediators not by autonomic factors synthesized by endothelial cells. Umbilical artery Doppler velocimetry is a recognized way of monitoring high risk pregnancy. It is presently propagated as the best method of fetal surveillance available.

Aim: To determine Pulsatility index (PI), Resistivity index (RI), Systolic/Diastolic ratio (S/D), End diastolic velocity (EDV), Peak Systolic velocity (PSV) of the umbilical artery of normal singleton pregnancy during the 2nd and 3rd trimester.

Methods: Prospective longitudinal study of 141 patients conducted from March -November 2019 in the Radiology department at 21-25 weeks (2nd trimester) and 31-35 weeks (3rd trimester) in collaboration with a consultant Obstetrician.

Results: The Doppler indices in the second and third trimesters were as follows;

PI was 1.29 +/-0.36 and 0.94 +/-0.24.

RI was 0.73 +/-0.11 and 0.60 +/-0.10.

S/D ratio was 3.68+/-2.36 and 2.29 +/-0.63.

PSV was 48.52 +/-18.28 and 65.24+/-24.01.

EDV was 315.23 +/-9.11 and 0.58 +/-14.43.

There is a statistical significant difference between all parameter in that the PI, RI and S/D ratio decrease from the 2nd to the 3rd trimester while the PSV and EDV increase from the 2nd to the 3rd trimester.

Conclusion: Baseline values for normal singleton pregnancy has been established. Thus, Doppler indices of patients in high risk pregnancies could be compared with these as reference values at the same gestational age to reduce perinatal mortality and morbidity.

Keywords: Feto-placental circulation, Doppler, Trimester, Pregnancy.

P47

First round of maternal, newborn, and child health week and optimal child health care in Rivers State

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Background: Maternal Newborn and Child Health Week (MNCHW) was approved in 2010 at the 53rd session of the National Council on Health as an approach for the delivery of integrated high-impact services from health facilities to under-fives, mothers, and women of reproductive age. Aimed at contributing to maternal, neonatal, and child morbidity and mortality reductions and scheduled for nationwide implementation biannual (May/June and November/December) by the National and State Primary Health Care Development Agencies and the State Ministries of Health, over a 5-day period, its 2015 UNICEF's evaluation showed no significant impact on the targets and several challenges to its implementation.

This paper examines the Rivers State's 2022 MNCHW's potential to optimize its child health care.

Methodology: Data from the First Round of MNCHW implemented in Rivers State in September 2022 were extracted, and analyzed. The Week was expected to achieve 80% reach of annual target population and 80% of monthly target population for priority and other inter-

ventions respectively.
Results: The First Round of the Week was implemented in September, outside the scheduled period and only two interventions (Vitamin A supplementation (86%) and MUAC screening (81%)) met the 80% target population, compared to others, (Penta 3 coverage (25%), deworming 45%, Birth registration 7% and wide variations in coverage rates in the LGAs
Conclusion: This report confirms the 2015 UNICEF Evaluation Report of the MNCHW's failure to contribute to optimizing child health and suggests that to optimise the MNCHW's impact, contributory factors to its poor and ineffective implementation should be addressed.

Nephrology

P40
Ultrasound Screening For Congenital Anomalies of The Kidneys And The Urinary Tract In Neonates seen in Aminu Kano Teaching Hospital, Kano

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Background/aim: Congenital anomalies of the kidneys and urinary tract (CAKUT) are structural malformations that occur due to defects in morphogenesis of the kidney and/or urinary tract and represent an important cause of chronic kidney disease (CKD) and end stage renal disease (ESRD) in the paediatric age group and development of hypertension and cardiovascular disease in adult life. There is remarkable improvement when diagnosed and corrected early and ultrasonography is a readily available, non-invasive and cost effective choice in the diagnosis of CAKUT. The study aims at determining the prevalence of CAKUT and the pattern of distribution of the subtypes as well as assesses the risk factors associated with the occurrence of CAKUT in neonates seen in Kano.
Methodology: It was a cross-sectional descriptive study of 375 neonates scanned using an ultrasound scanner (frequency 3.5-7.5 MHz) with focus on the kidney position, number, size, shape, echogenicity/renal parenchyma and the urinary collecting system and each kidney examined in its longitudinal and transverse axis. A pretested questionnaire in addition to partographs and antenatal cards where available were used to obtain relevant information including antenatal, intrapartum, post partum/neonatal history as well as socio demographic variables. A detailed physical examination on the anthropometry and the presence of any obvious congenital malformations was also noted.
Results: 18 of the 375 neonates (251 males and 124 females) scanned had CAKUT with a prevalence of 4.8%. The most common subtype of CAKUT was hydronephrosis which accounted for 61.1% of the total CAKUT seen followed by posterior urethral valve (16.6% of total CAKUT), ectopic kidney (11.1% of total CAKUT), polycystic kidney disease and simple cortical cyst (5.6% of total CAKUT each). The odds of CAKUT increased among neonates of mothers in the low socioeconomic class (AOR = 11.121, C.I = 1.441-85.813, p = 0.021), those with other congenital anomalies (AOR = 13.562, C.I = 4.642-39.662, p = 0.001) and in neonates of mothers who consumed NSAIDs during pregnancy (AOR = 9.675, C.I. = 1.347-69.522, p = 0.024).
Conclusion: The prevalence of CAKUT is low among neonates seen in Aminu Kano Teaching Hospital and hydronephrosis was the most common CAKUT subtype seen. The likelihood of having CAKUT is higher in neonates with low socio economic class, those with other congenital anomalies and neonates whose mothers consumed NSAIDs during pregnancy.
Keywords: Congenital Anomalies of the Kidneys and the Urinary Tract (CAKUT), ultrasound, neonates, chronic kidney disease.

P42
A Review of childhood nephrotic syndrome cases admitted in massey street children's hospital (MSCH) Lagos-Island

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Background/aim: Nephrotic syndrome (NS) is a glomerular disease in children characterized by massive proteinuria, hypoalbuminemia, generalized oedema and hyperlipidemia. It can be steroid sensitive (SSNS) or steroid resistant (SRNS). SSNS has a better outcome than SRNS which is an established risk factor for development of End Stage kidney disease or premature deaths.
This study aimed to determine the clinical presentations and outcome of childhood nephrotic syndrome cases in MSCH
Method: This is a hospital-based retrospective study conducted from June 2021 to May 2022 among children with nephrotic syndrome admitted in MSCH. Case notes of seven patients diagnosed with nephrotic syndrome were retrieved and reviewed. The age, diagnosis, commencement and response to steroids were documented and analyzed.
Results: There were seven children with nephrotic syndrome, three were males and four females (M:F =1:1.3) with age between 18 months to 5 years. Two (28.5%) out of the seven patients had elevated blood pressure and hematuria while five (71.4%) had no elevated blood pressure and hematuria. After 4 weeks of commencement of steroids for the five cases without hypertension and hematuria, they achieved remission, and were diagnosed SSNS. Two of these had a relapse while the two

cases with hypertension and hematuria were referred to a tertiary hospital in Lagos.
Conclusion: Nephrotic syndrome was common among females, aged 18months to 5years. Most of our cases have no elevated blood pressure nor hematuria, and were steroid sensitive.

P43
Profile and Outcomes of Children with Acute glomerulonephritis in Katsina, Nigeria

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Background: Studies on acute glomerulonephritis (AGN) in Nigeria described the epidemiological profile without an in-depth analysis of variables associated with outcomes. Herein, we described the profile and factors associated with hospitalization outcomes (discharge or death) among childhood AGN at a health facility in northwestern Nigeria.
Methods: This prospective cross-sectional study was conducted between 1st January 2018 to 31st December 2019 at a tertiary health facility in northwestern Nigeria. Diagnosis of AGN was based on clinical diagnosis. We also obtained a relevant history, clinical, and laboratory features
Results: Thirty-five children were admitted with AGN during the study period. The mean age was 7.7 ± 3.3 years. Most were aged 5 to 10 years (23; 65.7%), males (60.0%) and from lower socio-economic class (77.2%). The annual incidence of AGN was 11 cases per 1000 children. The most common clinical presentations were generalized body swelling (100.0%), reduced urine output (85.7%), and hypertension (74.3%). The median (interquartile range) of urea and creatinine were 10.0 (4.50 to 23.90) mmol/L and 85 (67.60 to 204.00) µmol/L, respectively. We recorded four deaths (case fatality rate of 11.4%). Clinical and laboratory features were comparable in those that died and those that were discharged except for the fever. Binary logistic regression showed that age, sex, fever, serum urea, and creatinine were not associated with hospitalization death.
Conclusion: This study shows a high incidence of childhood AGN and high mortality in Katsina, northwestern Nigeria. Age, sex, serum urea, and creatinine were not associated with poor outcomes.

P44
Renal Dysfunction among HIV/AIDS Children Attending a Secondary Health Facility in Jos, Nigeria

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Background/Aim: In Nigeria HIV/AIDS contributes to leading causes of morbidity and mortality in children. Chronic diseases including HIV/AIDS continue to be major concerns in development of renal complication. This study ascertained the state of renal complications amongst HIV/AIDS children receiving antiretroviral therapy in a secondary health facility in Jos, North central Nigeria.
Methods: A cross-sectional study of 121 HIV/AIDS children was conducted at Faith Alive Foundation Hospital and PMTCT Center in Jos from August to November, 2022. The serum creatinine level was obtained and the estimated Glomerular Filtration Rate (eGFR) was calculated using the modified bedside Schwartz equation. Renal complication was defined as eGFR <60 mL/min/1.73 m^2 and or dipstick proteinuria ≥2+.
Results: This study included 65 (53.7%) females and 56 (46.3%) males with mean age of 10.8 ± 4.3 years. The children were all on antiretroviral medication, 50 (41.3%) were on tenofovir-based regimen, 96.7% had vertical transmission of HIV infection, 85 (70.2%) had WHO stage 1 illness, and 59 (48.8%) were from low socioeconomic backgrounds. Renal disease was observed in 2 (1.7%) individuals, 6 (5.0%) patients had a mild reduction in GFR (60-89 mL/min/1.73 m2), and none had end-stage renal disease (GFR less than 15 mL/min/1.73 m2). Being on a tenofovir-based regimen was associated with renal impairment (p = 0.008).
Conclusion: In order to prevent progression to end stage disease, it is pertinent to implement measures for early detection of renal impairment in HIV/AIDS children, particularly those on tenofovir-based regimens.
Keywords: HIV, renal dysfunction, tenofovir

Neurology

P45

Aicardi syndrome in a Nigerian female child: A case report of a rare neurodevelopmental disorder from North-Western Nigeria

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Background: Aicardi syndrome is a very rare neurodevelopmental disorder, inherited as an X-linked dominant condition with a triad of infantile spasm, partial or complete agenesis of the corpus callosum, and chorio-retinal "lacunae." We report a case of a female infant with the classical triad of Aicardi syndrome
Case Report: A female infant presented to the Paediatric Neurology Clinic of the Federal Medical Centre Birnin-Kebbi, North-western Nigeria, at the age of two months with complaints of recurrent afebrile convulsions typical for infantile spasms. She was delivered at term with normal Apgar scores and a birth weight of 3.18 kg.
Examination revealed an infant with no dysmorphic features and normal systemic examination. MRI of the brain showed complete agenesis of the corpus callosum and dilatation of the posterior horn of the lateral and third ventricles. Fundoscopy showed multiple yellowish spots along the vascular arcades in the right eye. The left eye had a one-disc diameter lacuna in the superior nasal quadrant adjacent to the optic disc with multiple yellowish spots.
A diagnosis of Aicardi syndrome was made. The child was placed on oral phenobarbital and followed up. At the age of 18 months, the frequency of the seizures had reduced from > 100 times per day to 2-3 episodes per day, but the child had developed right-sided spastic hemiparesis and global developmental delay. She was commenced on physiotherapy and the anti-epileptic drugs were maintained.
Conclusion: To the best of the authors' knowledge, to date, this is the first case of Aicardi syndrome reported from Nigeria. This is also probably the second case of Aicardi syndrome reported in a black African child in more than five decades. We recommend clinicians consider Aicardi syndrome in the differential diagnosis of any child presenting with infantile spasms.
Keywords: Aicardi syndrome, Female child, North-western Nigeria, Case Report

P46

Application of automatic segmentation algorithms to Brain CT and low-field MRI data in an African population.

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Background: Non-communicable diseases (NCD), such as stroke, brain tumours and degenerative conditions like dementia, are rising in Africa, establishing a significant disease burden in the region Stroke is now the leading cause of disability, dementia and death in Africa. Additionally, it affects a comparatively younger population than in the West and recent evidence indicates that Africa could have more than 2 to 3-fold greater stroke incidence rates than western Europe and the USA
Neuroimaging is critically important to stroke diagnosis and outcome. image characterization is crucial in influencing and predicting outcome through stratification and quantitative measures.
Image analysis techniques are rapidly evolving, particularly with the advent of (deep) machine learning (ML). Several neuroimaging analysis tools, mostly for high field (1.5-7T) MRI, have been developed, allowing rapid extraction of quantitative information from scans and providing more extensive characterization of the brain and lesions. However, the most widely available imaging tools for managing stroke in African countries are CT and low field (<1T) MRI systems
The aim of this project was to determine the applicability of brain segmentation tools developed at the University of Oxford to images obtained on a wide range of lower resolution imaging systems, commonly used in resource-limited regions of Africa.
Method: A mixed set of 100 previously uncharacterized, anonymized neuroimaging datasets acquired in Nigeria were curated, annotated and pre-processed to ensure suitability before applying ML methods for lesion segmentation and classification. We applied brain lesion segmentation tools to these CT and MRI images to identify the optimizations required to improve the tools' performance.
Results: The findings demonstrate the adaptations that make the ML tool generalizable and applicable with low resolution CT and MR data.
Conclusion: Artificial intelligence tools may contribution to improve clinical outcome in broader settings if adequately applied

Pulmonology

P01
Clinical features of pneumonia among children admitted in peadiatric department, Bingham university teaching hospital, (BHUTH) Jos, plateau state

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Background: Pneumonia is defined as an acute respiratory infection that affects the lungs. It is a common respiratory disease responsible for most admissions in the pediatric medical ward. The common symptoms they present with include cough, fast breathing and fever. The signs on examination are pyrexia, tachypnea, dyspnea, crepitations and decreased oxygen saturation.
Aim: To determine the common clinical features of pneumonia seen among children admitted into the Paediatric Medical Ward (PMW) of BHUTH, Jos.
Method: This was a retrospective study. Data was obtained from folders of PMW over a one year period from September 2020-September 2021.
Result: A total number of 408 patients were admitted into the PMW. Fifty five (13.5%) were admitted as a case of pneumonia. Fifty-two (94.5%) of the patients diagnosed with pneumonia presented with fever, forty five (81.8%) had cough and thirty-three (60%) had fast breathing. The male to female ratio was 1.4:1. Oxygen saturation of < 90% in room air was seen in 24 (43.6%) and 31(56.4%) of the patient saturated above 90%. On chest examination, 36 (65%) had crepitations, while the remaining 19 (35%) had vesicular breath sounds. They spent an average of 5 days on admission after which 51 (92.7%) were discharged, 2 (3.6%) signed against medical advice (SAMA), 1 (1.8%) was referred and 1 (1.8%) died.
About 41 (75%) of the patients with saturation below 90% had crepitations. The patients that SAMA had an oxygen saturation below 90%. Out of all the patients being managed, 5 (9%) developed complication of congestive cardiac failure.
Conclusion: The most common clinical symptoms of pneumonia are fever and cough. Crepitations, and decreased saturation are prominent features on examination in children with Pneumonia. Prompt and appropriate interventions yields satisfactory outcome.

P48
Effect of face masks use on throat microbiota of primary school children: a cohort study

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Background /Aim: The 2021 Covid recommendation for school pupil ≥ 6years to strictly use facemask may disrupt the microbiota of the throat by interfering with carbon dioxide and oxygen levels.
The study was to determine the microbiota pattern of primary school children aged 6 to 12 years, in the immediate post-holiday period during non-strict face mask use and compare with periods of strict face mask use in the course of the term.
Methods: Sterile throat swab was taken on the first day of the term to study the normal flora of the throat (control). Four weeks after school resumption and following standardized strict face mask use, a second throat swab was taken. Samples were transported in brain heart infusion agar to a tertiary hospital laboratory for studies. Three media; chocolate agar, sheep red cell agar and MacConkey agar were used. Gram stain, colony count, motility test and biochemicals were done on the cultured bacteria.
Results: 56.67% of participants were males. They were aged 6 to 11 years. Eight organisms were grown. The comparison of mean colony count had significant reduction between post-holiday microbiota level and samples taken after four weeks of strict facemask use. E. coli, Staph aureus, Strept viridians (*p* 0.000). Klebsiella pneumonia (*p* 0.001) while Moraxella was also significantly reduced (*p* 0.032). C. diphtheriae, Diphtheroid, and N. meningitidis were not significantly reduced *P* value > 0.05.Preferred mask was surgical mask 83%, cloth 17%.
Conclusion: There is significant reduction in most throat commensals studied following strict face mask use. The commensals with higher colony count and which were found in more participants were those with significant reduction. Strict prolonged face mask use may affect throat microbiota negatively.

P49
The direct cost of breathing oxygen in children with severe pneumonia in Abuja, Nigeria

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Introduction: Nigeria contributes the largest proportion to global childhood deaths from pneumonia. About 13 percent of children with pneumonia have hypoxemia,

increasing the risk for mortality by up to five times. Oxygen is therefore lifesaving but requires payment like other medications. In Nigeria, about 40% (83 million people) of its population live below the poverty line while only 3% are covered by health insurance. This sets a background for challenges and poorer health outcomes for children with severe pneumonia. This study aims to determine the financial cost of oxygen among children admitted for severe pneumonia.
Methods: A prospective study over a 12-month period at the University of Abuja Teaching Hospital among children hospitalised for severe pneumonia. The proportion of children who required oxygen, the duration of oxygen use and mode of payment were assessed and used to determine oxygen cost.
Results: Majority of the 83 sampled patients were males 47 (56.6%), required oxygen59 (71.1%), mostly for a period of one day 49 (59%). The SPO_2 measurements ranged from 55% to 95% with a mean of 84.3% ± 8.04%. Majority of the children 56 (67.5%) had no health insurance cover and paid out-of-pocket. The average cost for oxygen was N42,085.70 ($94.60).
Conclusion: Most children hospitalised required oxygen. The cost of oxygen is beyond the reach of many Nigerians who live below the poverty line. It is recommended that government implement friendly policies for provision and payment of oxygen in health facilities to improve outcome of children with severe pneumonia.

Social Paediatrics

P50
Impact of unguarded utterance: case report of suicidal attempt in an adolescent

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Introduction/Aim: Suicide amongst adolescents is increasing globally and Nigeria is not left out of the menace. Poor academic performance and poor relationship with peers and teachers have been identified as risk factors significantly associated with suicidal behaviours. This case report aims to draw attention to the impact of unguarded utterance on learners and how poor teacher-learner relationship can predispose to suicidal behaviour.
Case Report: A 14-year-old JSS 2 student presented to the EPU with 3-day-history of abdominal pain and vomiting, 1 day-history of passage of bloody urine, dizziness, and a syncopal episode. The symptoms started 48 hours after willful ingestion of small-sized camphor ball. The patient had intention of ending his life because of poor relationship with his teacher who he alleged repeatedly called him “useless” due to his poor academic performance. Examination findings revealed conscious child, afebrile, but severely pale, moderately icteric, with tender hepatomegaly. Investigations revealed PCV of 13%, deranged liver function test, urinalysis showed coke- coloured urine, blood (+++), and bilirubin (++). A diagnosis of camphor poisoning following suicidal attempt was made. He was managed for the camphor poisoning and did well. He was counselled and subsequently referred to the paediatric neurologist and psychiatrist for further management of the suicidal attempt.
Conclusion: Psychosocial conflicts and stresses such as conflicts with schoolteachers and peers are common among students. It is important teachers understand the challenge these stressors pose on the child’s mental wellbeing. This case also brings to fore the importance of school health programme in forestalling such incidences.
Keywords: Suicide, camphor, mental health, teachers, school health programme, Nigeria