NIGERIAN JOURNAL OF PAEDIATRICS

https://www.njpaediatrics.com

PRINT: ISSN 0302-4660

ONLINE: ISSN 2814-2985

OFFICIAL JOURNAL OF THE PAEDIATRIC ASSOCIATION OF NIGERIA

VOLUME 52
NUMBER 2
APRIL - JUNE 2025

Nigerian Journal of Paediatrics 2025 (April-June); Volume 52(2): 173-222.
https://dx.doi.org/10.63270/njp.2025.v52.i2.2000020.

Conference Proceedings (Abstracts)
56th Annual General Meeting and Scientific Conference of the Paediatric Association of Nigeria (PANCONF), 22nd to 24th January 2025

ORAL PRESENTATIONS

PAN-GME-001

The Current Trends and Global Prevalence of Acute Rheumatic Fever. The African Experience. A Systematic Review and Meta-Analysis

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Introduction: Acute rheumatic fever (ARF) is an autoimmune disease. The current trends and prevalence are not well established.

Aim: To determine the various prevalence rates and to establish the current trends.

Methods: Search engines for the published articles included in the study were PubMed, the Cochrane Database of Systematic Reviews, Google scholar, Institute for Scientific Information (ISI) "Web of Science," and Medline. Articles published between 1978 and 2016 were included in the study.

Results: Thirty-eight thousand, nine hundred and ten citations were identified in our search strategy, but this consisted of different forms of ARF/RHD and rheumatoid arthritis including both children and adults. The estimated random effect (accounting for heterogeneity between studies) was 0.01, but the confidence interval was wider ([0.01; 0.02]). The tau^2 (variance of random effects) was 2.5043, suggesting substantial heterogeneity. I^2 (percentage of total variance due to heterogeneity) was 98.2%, confirming a very high degree of heterogeneity across studies within nations but across the nations, the Q statistic was 3.23 with a p-value of 0.5197, suggesting that there was no significant difference in the effects across the subgroups.

Conclusion: There is a clear statistical difference in prevalence rates and a very high degree of heterogeneity in individual studies. While the estimated prevalence rates vary slightly across the regions, these differences are not significant. The heterogeneity within each region, particularly in Northern Africa and Western Africa, suggests that the prevalence may still vary within these regions, even if there are no overall differences between them.

PAN-GME-002

Polyarthritis nodosa: A Case Report

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Introduction: Childhood polyarthritis nodosa (PAN) is a medium-sized vasculitis accounting for 3% of childhood vasculitis. Vasculitis is an uncommon finding in tropical paediatric practice. It has many causes including infections and autoimmune reactions. The site and size of vessels involved, the extent of the damage on involved arteries and the underlying pathology define disease severity. PAN could be cutaneous or systemic. Cutaneous PAN is limited to skin and muscles. Systemic PAN
leads to systemic inflammation which frequently affects the skin, muscles, kidney and GIT while sparing the Lungs. The brain, heart, and peripheral nervous systems are least affected.

Case: AJ, a 12-year-old female, presented to EFSTH Gambia in August 2024 with complaints of a sore on the forehead, fever, weight loss, darkening of the fingers, vomiting and abdominal pain which was worsened by feeding. Symptoms were present for weeks. Parents were in a polygamous consanguineous marriage. Examination revealed a severely wasted child, hanging skin folds, significant peripheral lymph node swelling in the cervical region, forehead superficial lesion measuring 4 by 5 cm with granulating base. Gangrene of the right fingers, involving the second and third digits of the left hand were noted. Mid-Arm-Circumference was 10 cm, body weight was 10kg (40% of expected), and body length was 140cm. Scaphoid anterior abdominal wall moved

with respiration, diffusely tender but with no palpable organomegaly. The pulse rate was 160/minute. Blood pressure was 150/90 mmHg on the right arm and 120/90mmHg on the left arm. The first and second heart sounds were normal with no murmurs. The cardiac apex was not displaced. Ultrasound scan showed increased echogenicity of both kidneys; the right kidney measured 7.5 to 7.8cm, the left kidney measured 8.3cm, there was gall bladder sludge, with multiple intestinal lymph nodes. Urinalysis showed protein 2+, blood 3+, serum electrolytes, urea, creatinine were essentially normal. ESR was 60mm/hour, INR was 1.2, while WBC was 22,000/mm^3 with granulocytes 60%, lymphocytes 40%, and serology for Hepatitis B and C, and HIV 1 and 2 were negative.

The child received intravenous methyl prednisolone at 5mg/kg per day for 5 days, intravenous ampicillin was given for five days, following which she was commenced on oral Vasoprin, Omeprazole and Prednisolone. Appetite improved and the child gained 3kg in two weeks and was referred to the orthopaedic surgeon for the management of the gangrenous digits.

Conclusion: Systemic idiopathic PAN in children can mimic sepsis or complicated diabetes mellitus therefore, a high index of suspicion is required to identify this uncommon form of vasculitis.

PAN-GME-003

Left Ventricular Dysfunction and its Associated Factors in Children with Severe Acute Malnutrition: A Cross-Sectional Comparative Study

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Introduction: Severe acute malnutrition is defined as wasting with Weight for Height Z-score below -3SD or mid arm circumference less than 11.5cm and or bilateral pitting oedema. It is a major public health issue in a resource-limited setting. Malnutrition causes generalized muscle wasting, including cardiac muscles with subsequent reduction in left ventricular mass. The reduction in cardiac mass might result in left ventricular (LV) systolic and diastolic dysfunctions causing heart failure.

Aim: To describe the prevalence of left ventricular systolic and diastolic functions and the associated factors among children aged 6-59 months with severe acute malnutrition using 2-Dimension and Doppler echocardiography.

Methods: This was a comparative, cross-sectional study carried out at the Aminu Kano Teaching Hospital, Northwest Nigeria over six months. Eighty-two children with SAM aged 6-59 months were recruited and matched for age and sex with apparently healthy controls. An interviewer-administered questionnaire was used to obtain sociodemographic and clinical data, while LV systolic and diastolic functional indices were obtained using transthoracic echocardiography.

Results: Most of the children were within the age group of 6-11 months (33.3%) with a median age of 16 months. There were slightly more males (M: F of 1.3:1). Majority (40.7%) of the respondents' parents belonged to social class V. The prevalence of Left Ventricular systolic dysfunction (58%) was significantly higher in children with SAM compared to controls ($p<0.001$). Similarly, there was a high prevalence of LV diastolic dysfunction (43.2%) in children with SAM when compared to apparently healthy control ($p<0.001$). Nutritional oedema was significantly associated with diastolic dysfunction ($p = 0.017$).

Conclusion: Severe acute malnutrition affects both LV systolic and diastolic functions in varying degrees. The presence of oedema may contribute to the burden of morbidity in the severely malnourished children.

PAN-GME-004

Latencies in The Trajectory to the Diagnosis and Repair of Structural Cardiac Lesions Among Children in Limi Hospital, Abuja

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Introduction: Delay in the diagnosis and repair of congenital heart diseases (CHD) are multifactorial and portends avoidable morbidity and mortality.

Aim: To explore delays in diagnosis and repair of CHD, with related factors among children at the Limi Hospital from May to November 2024.

Methods: This cross-sectional study was conducted at the Limi Hospital Group, Abuja. All registered paediatric congenital heart disease patients with echo diagnosis were included. Baseline data were retrieved from medical records and participants responded to an interviewer administered questionnaire.

Results: Twenty children with age ranging from 3 months to 15 years and male predominance (55%, n =11) were studied. The proportion of delayed diagnosis was 100% and 12.5% in children with

cyanotic and acyanotic CHD respectively. Delays in diagnosis were mostly related to doctors, and service availability factors (30% each), financial constraints and social factors (20% each). At diagnosis, 55% of the children were hospitalized for recurrent bronchopneumonia (63.6%) and heart failure (36.4%). While 70% of participants had definitive repair of cardiac lesion, 64.3% were funded by charity foundations and 35.7% by out-of-pocket expenditure. Of the 30% yet to be repaired cases, reassurance from doctors (16.6%), and financial constraints (84.4%) were the reasons.

Conclusion: One in 8 children with acyanotic, and cyanotic CHD had delayed diagnosis which were commonly associated with comorbid complications. Unfortunately, diagnostic delays were predominantly health system-related. Repairing cardiac lesions is not sustainable as they are predominantly donor driven.

PAN-GME-005

Biventricular Dysfunction and Left Ventricular Thrombus in a Case of Delayed Repair of Tetralogy of Fallot. A Case Report

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Background: Tetralogy of Fallot (TOF) is the commonest cyanotic congenital heart disease. If left untreated, right or biventricular dysfunction can develop overtime. Ventricular dyskinesis or akinesis can predispose to the formation of cardiac thrombus. Also, the tapering nature of left ventricular apex predisposes to stasis of blood and thrombus formation**.**

Aim: To raise awareness on this uncommon presentation of delay in repair of tetralogy of Fallot.

Case: NQ is an 8-year-old boy who presented with cough and generalized body swelling of 1 month with associated worsening, fast breathing with bluish discoloration of lips and extremities. He was suspected of having congenital heart disease at two years of age and echocardiography confirmed TOF at the age of six years. The child defaulted from follow-up care but later represented with the current symptoms.

Examination revealed a small-for-age child who was dyspneic, tachypneic, deeply cyanosed, plethoric with bilateral pedal oedema, Grade 4 digital clubbing, tender hepatomegaly and Grade 3/6 ESM at the left upper sternal border. Echocardiography showed Tetralogy of Fallot with biventricular dysfunction (LVEF of 26.5%, FS of 11.3% and RV TDI of 7cm/sec) and apical left ventricular mural thrombus. He was managed for congestive cardiac failure (CCF), Tet spell and was also anticoagulated. The symptoms improved, LV thrombus size regressed and the family was counselled for urgent corrective cardiac surgery.

Conclusion: Though CCF is not common in TOF, if surgery is delayed, there is the risk of developing life-threatening complications like BV dysfunction and cardiac thrombus among others.

PAN-GME-006

Bronchial Asthma Precipitating Recurrent Hypercyanotic Spell in a Child with Tetralogy of Fallot

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Background: Hyper-cyanotic spells are often triggered by a precipitant including coexisting undiagnosed comorbidity like asthma. This case highlights the likelihood of missing bronchial asthma in a child with hyper-cyanotic spells and the impact of delayed diagnosis and the likely role of prophylactic propranolol as an asthma trigger.

Case: A seven-year-old boy diagnosed with TOF at three years of age and has been stable on propranolol prophylaxis until four months prior to presentation, when he developed recurrent hyper-cyanotic spells. He was admitted five times within this period and managed as a case of hyper-cyanotic spell precipitated by ARI. At the last admission he presented with a day history of cough, dyspnoea, cyanosis, and intermittent squatting. He is not a known asthmatic and has no family history of asthma. Physical examination revealed a Grade II finger clubbing, pansystolic murmur loudest at the left parasternal area with widespread rhonchi. The packed cell volume was 51%, and Chest X-ray showed hyperinflated and oligaemic lung fields. A diagnosis of hyper-cyanotic spell precipitated by asthma was entertained. He had oxygen, morphine, hydrocortisone followed by oral prednisolone and nebulized salbutamol. Prophylactic propranolol was stopped and he progressively improved and was discharged after seven days on a metered-dose inhaler and has remained free of hyper-cyanotic spells since discharge over two months ago.

Conclusion: This case highlights the importance of looking out for precipitants in children with TOF presenting with hyper-cyanotic spell especially when there is a change in the already established

clinical pattern. Prolonged use of prophylactic propranolol could trigger asthma in children with TOF.

PAN-GME-007

Inflammatory Bowel Disease Co-Existing with Systemic Lupus Erythematosus in an Eight-Year-Old Girl: A Case Report

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Introduction: Inflammatory bowel disease is a chronic inflammatory disease because of the effect of dysregulated immune system on the gut microbiome. It comprises of ulcerative colitis, Crohn's disease and indeterminate colitis. It was previously thought to be very rare in people of African descent. However, the incidence has increased significantly over the last decade in many African communities. We report a case of inflammatory bowel disease (ulcerative colitis) co-existing with systemic lupus erythematosus in a female child in Sokoto State, Northern Nigeria. To our knowledge, this is the first report of its kind in the study area.

Case: She presented with a two-year history of recurrent abdominal pain and passage of muco-bloody stools. There was associated weight loss, fever, drenching night sweats, anorexia, and malaise. She also had joint and leg pain, but no swelling or eye pain. The mother and maternal uncle were on treatment for similar illnesses. Full Blood Count showed microcytic hypochromic anaemia with elevated CRP and ESR. Colonoscopy showed pan-colitis with histologic findings of non-specific chronic colitis. ENA panel done revealed positive anti-nuclear antibody. The patient was on oral prednisolone and weekly methotrexate. She had remained stable, and symptoms have improved significantly. She was still on follow- up care at the paediatric gastro-enterology and rheumatology clinic at the time of reporting.

Conclusion: Inflammatory bowel disease is becoming frequently diagnosed in African children as a result of improved diagnostics and specialist care. A high index of suspicion is needed to aid in prompt diagnosis and early treatment

PAN-GME 008

Prevalence of Dysglycaemia and Relationship with Clinical Outcomes in Children with Severe Acute Malnutrition in Federal Teaching Hospital, Birnin Kebbi

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Introduction: Malnutrition is a significant global health challenge, especially for children under five, ranking as the third leading cause of death in developing nations. Dysglycaemia, a disruption in normal blood sugar levels, can present as hypoglycaemia or hyperglycaemia. In children with Severe Acute Malnutrition (SAM), hypoglycaemia often results from depleted glycogen and low glucose reserves, while hyperglycaemia may arise from stress-related hormone release and increased insulin resistance.

Aim: This study was to determine the prevalence of dysglycaemia and assess its relationship with clinical outcomes in children with SAM admitted to the Federal Teaching Hospital, Birnin Kebbi.

Methods: This descriptive, cross-sectional study involved 132 children with SAM aged six months to five years, admitted to the Emergency Paediatric Unit over one year period (September 2023 - August 2024). Random blood glucose levels were evaluated on admission and at 24 hours. Dysglycaemia was defined as hypoglycaemia (RBS <3.0 mmol/L) or hyperglycaemia (RBS >11.0 mmol/L). Hypoglycaemic children received 10% dextrose via NG tube; no intervention was given for hyperglycaemia.

Results: Of the 132 subjects, 11.4% had dysglycaemia, with 2.3% experiencing hypoglycaemia and 9.1% hyperglycaemia. Dysglycaemia was associated with a mortality rate of 4.5%, with all deaths occurring in the hyperglycaemic group (statistically significant compared to normoglycaemic children; p<.00001).

Conclusion: Dysglycaemia, present in 11.4% of children with SAM, was linked to increased mortality. These findings emphasized the need for diligent glucose monitoring and management in malnourished children to improve outcomes.

PAN-GME-009

Pattern, Comorbidities and Outcome of Under-5 Children with Severe Acute Malnutrition at the Federal Medical Centre Nguru

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Introduction: Malnutrition is believed to contribute to nearly half of deaths among children under five

years of age in Asian and African continents. The incidence of Severe Acute Malnutrition (SAM) is rising due to multifactorial factors.

Aim: To examine the pattern, comorbidities and outcome of under-5 children admitted with SAM at the Federal Medical Centre Nguru.

Methods: A descriptive, retrospective study of under-5 children with SAM were studied for their comorbidities and outcome over a 12-month period from 1st December 2023 to 30th November 2024. Information regarding age, sex, diagnosis, duration of hospital stay and outcome were extracted from the patients' medical records.

Results: There were 932 SAM admissions overall, over the 12 months period, with a male-female ratio of 1.48:1. Eighty-six (9.2%) of the SAM patients were oedematous, while 846 (90.8%) were non-oedematous SAM. Diarrhoeal diseases, acute respiratory infections and measles were the leading comorbidities for SAM admissions. Eight hundred and five (86.4%) of the admitted patients were discharged to OTP, 91(9.8%) died, five (0.5%) left on DAMA while 31 (3.3%) patients defaulted.

Conclusion: Severe acute malnutrition is very rampant in the environment studied. Comorbidities usually worsen the outcome of the condition. Early identification of danger signs, prompt health seeking behaviour, enrolment of more citizens on insurance scheme, and early treatment of SAM and comorbidity may help reduce child mortality.

PAN-GME-010

Fasting Lipid Profile of HIV-Positive Children at the University of Maiduguri Teaching Hospital, Maiduguri, Borno State, Nigeria

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Introduction: Dyslipidaemia is common in HIV-infected children receiving antiretroviral therapy (ART). Few studies have evaluated the effect of ART on dyslipidaemia in the era of increasing ART use.

Aim: To determine the Fasting Lipid Profile of HIV-infected children receiving Antiretroviral Therapy at the University of Maiduguri Teaching Hospital (UMTH) and its associated risk factors.

Methods: This was a descriptive, cross-sectional study involving 249 HIV-positive children aged 2-15 years who were receiving ART. They were selected by systematic random sampling. Their socio-demographic and clinical characteristics were recorded in a proforma. Fasting serum lipids were measured using enzymatic methods and low-density lipoprotein (LDL-c) was calculated using the Friedewald formula. Dyslipidaemia was defined by any combination of these: low HDL-c of ≤40mg/dl, high LDL-c of >130mg/dl, hypertriglyceridaemia of >145mg/dl and a hypercholesterolemia of >200mg/dl.

Results: The median age of HIV-positive children on ART was 11 years [IQR 7-13]. The median age at diagnosis of HIV was 2.50 years [IQR 1.50-5.00] and the median duration on ART was 6.10 years [IQR 4.00-9.00] with mild disease being more frequent (95; 38.2%). The prevalence of dyslipidaemia in HIV positive children on ART was 63.1%; of these, 96 (38.6%) had hypertriglyceridaemia, 78 (32.3%) had hypercholesterolaemia, 62 (24.9%) had high LDL and, 53 (21.3%) exhibited low HDL. The duration of ART ($p<0.001$), the WHO clinical stage of HIV ($p = 0.031$) and being on a PI-based regimen ($p = 0.016$) were associated with dyslipidaemia.

Conclusion: There was a high prevalence of dyslipidaemia among HIV-positive children on ART with hypertriglyceridaemia being the most common form. Severe HIV disease, longer duration on ART and being on PI-based regimen were significantly associated with dyslipidaemia.

PAN-GME-011

Testicular Volume of HIV-Infected Boys Attending the University of Uyo Teaching Hospital, Uyo, Akwa Ibom State, Nigeria: A Comparative Study

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Introduction: The Human Immunodeficiency Virus infection in children has been reported to be associated with delayed puberty. Guidelines stipulating that all children be on HAART have led to increased life expectancy among HIV-infected children.

Aim: To assess the testicular volume of HIV-infected boys and compare it with age-matched non-infected boys attending the University of Uyo Teaching Hospital, Uyo, Akwa Ibom State.

Methods: A total of 52 HIV infected and 52 non-infected boys, aged 8-17 years were recruited consecutively from the Paediatric Out-patient Clinic. A study proforma was filled for each participant and anthropometric measurements were done. Testicular volume was assessed using an orchidometer. The pubertal stage using testicular

volume was evaluated with the Sexual Maturity Rating (SMR) Chart by Tanners.

Results: The mean age of the participants was 12.5 years. All HIV-infected participants were in WHO clinical stage I, with a mean CD4 count of 770.5 cells/ml and an undetectable viral load in 67.8%. The proportion of males in SMR I - III was significantly higher among the HIV-infected children. SMR stage IV -V had 26.93% of HIV-infected boys and 38.46 % of HIV non-infected boys. The lower proportion of HIV-infected males in advanced Testicular Volume stages IV and V was statistically significant when compared to the HIV non-infected group.

Conclusion: A lower proportion of HIV-infected boys were in advanced testicular volume when compared to the control. This suggests that the chronic nature of HIV infection may negatively affect testicular volume despite the absence of immunologic decline.

PAN-GME-012

Prevalence and Predictors of Hyperglycaemia Among Children Admitted into an Emergency Paediatric Unit

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Introduction: Hyperglycaemia is one of the metabolic derangements commonly complicating illnesses among children admitted into Emergency Paediatric unit and could lead to adverse clinical outcome.

Aim: To determine the prevalence and factors associated with hyperglycaemia among children admitted into the EPU.

Methods: It was a cross-sectional, descriptive study carried out at the University of Maiduguri Teaching Hospital among children aged 1 month to 15 years. The subjects were recruited consecutively after meeting the inclusion criteria. Blood glucose was determined using ACCU-CHECK® Glucometer and strips. Hyperglycaemia was defined as RBG of >7.8mmol/l.

Results: Of the 340 subjects, 206 (60.6%) were male and two-third, 226 (66.5%), were aged 1 month < 5years. Eighty-one had hyperglycaemia with a prevalence of 23.8%. Hyperglycaemia was seen more commonly among those with tachycardia, tachypnoea, convulsion and vomiting though none of these features independently predicted hyperglycaemia. Febrile convulsions, (OR = 4.659{1.543-14.065, p = 0.006), and severe sepsis, (OR = 6.091[1.370-27.089], p = <0.001) were significantly associated with hyperglycaemia. The odd of having hyperglycaemia was 3½ times higher among those with meningitis (OR = 3.409 {0.789-14.764), though this relationship was not significant, p = 0.101.

Conclusion: The prevalence of hyperglycaemia was high among children admitted into the EPU. We recommend routine blood glucose determination for every child admitted into the EPU and closer blood glucose monitoring among those with severe sepsis, febrile seizures and meningitis.

PAN-GME-013

Prevalence, Pattern and Outcome of Blood Transfusion in Children Admitted into the Paediatric Department in Bingham University Teaching Hospital, Jos

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Introduction: Blood transfusion is one of the important life-saving supportive therapies used in paediatric practice worldwide. There are about 40% of under-five children suffering from anaemia in the world and 60% out of these are from Sub-Saharan Africa.

Aim: To evaluate the prevalence, pattern and outcome of blood transfusion in children admitted into the Paediatric department of BHUTH.

Methods: This was a retrospective (record based) cross sectional study carried out over a 24- month period. Information regarding age, gender, clinical presentation, diagnosis, treatment with blood transfusion and outcome were obtained and analyzed.

Results: One hundred and one (4.8%) children had blood transfusion out of 2,096 children admitted within the period under review. The male to female ratio of the children transfused was 1.2:1. Out of the children transfused, children aged 5 years and below made up to 64% while children aged 6-10 years made up 24%. The most frequent indications for transfusions were neonatal diseases (30; 30%), surgical diseases (17; 16.7%) and sickle cell anaemia (15; 14.8%). Sedimented red blood cells were the most frequently transfused blood product in 75 (75%) of cases, while whole blood constituted 25%. Most of the children transfused (76; 75.2%) recovered and were discharged, while 18 (17.8%) died.

Conclusions: Blood transfusion is a supportive therapy administered in paediatric patients with various medical illnesses.

PAN-GME-014

Comprehensive Summer Camp Program for Adolescents with Sickle Cell Disease: My Experience as a Camp Doctor

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Introduction: Sickle cell disease (SCD) significantly affects adolescents' physical and emotional well-being. Summer camps provide opportunities for social interaction and personal growth.

Aim: To describe the experiences of adolescents with SCD at Camp Jumoke, highlighting the impact of such programs on their quality of life.

Methods: In July 2023, Camp Jumoke sponsored 11 adolescents with SCD (ages 13–16) to attend a residential camp in Muskoka, Ontario Canada alongside healthy peers (ages 5–16). Some participants attended for two weeks, while others attended for one week. The camp featured recreational sports, arts and crafts, team building, water activities, and an overnight out-tripping experience. Medical support was provided throughout the program.

Results: Campers actively participated in activities, fostering enthusiasm and peer connections. Three campers required significant medical interventions, including one hospital visit for fever management, while three others experienced minor pain episodes managed with appropriate care. Most adolescents engaged fully in camp activities, building camaraderie and developing resilience despite their health challenges. The camp doctors provided timely medical interventions, and the collaborative efforts of medical staff and camp counsellors ensured a safe and supportive environment for all campers.

Conclusion: Camp Jumoke successfully delivered a comprehensive summer camp experience for adolescents with SCD, promoting physical and emotional well-being through engaging activities and dedicated medical support. Although limited funding reduced the number of participants, the program demonstrated the value of such initiatives in enhancing the quality of life for adolescents with SCD.

PAN-GME-015

Clinical Presentations and Outcomes of Children with Nephroblastoma in Zaria, Nigeria

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Introduction: Children with nephroblastoma present with local and/or metastatic disease with varying clinical features many of whom do not afford effective treatment or care. This often leads to a decline in accepting treatment or abandonment of therapy with consequent mortalities.

Aim: To document the clinical features and management outcomes of children with Nephroblastoma.

Methods: Retrospective data and histological reports of nephroblastoma managed based on the International Society of Paediatric Oncology (SIOP) protocol at the Ahmadu Bello University Teaching Hospital, Zaria between 2010 and 2024 were retrieved.

Results: The data of 51 children was extracted. The ages ranged from 4 months to 9 years with a mean and modal age of 4.2±2.3 and 3 years respectively. There were 26 (51%) males and 25 (49%) females, accounting for a male-to-female ratio of 1.04:1. Females had more left-sided tumours while males had more right-sided tumours, which was statistically significantly different ($p = 0.04$). Twenty-nine (56.9%) of the patients were ill at presentation. Weight loss, abdominal pain, and fever were observed in 49%, 39%, and 35% of the patients respectively while 52.1% and 18.7% had stages 3 and 4 diseases, respectively. Regrowth of tumours occurred in 6 (12.5%) of the patients while they were undergoing cytotoxic chemotherapy. Seventeen (35.4%) patients abandoned therapy while 15 (31.3%) completed the chemotherapy but 10 (20.8%) died while the cytotoxic chemotherapy was ongoing.

Conclusion: The clinical presentation of nephroblastoma was frequently in the advanced disease forms. The outcome was poor probably due to late presentation, abandoned therapy, and high mortality.

PAN-GME-016

Sickle Cell Disease Morbidities, Clinical Outcomes and Associated Factors in Hospitalized Children at the Federal University Teaching Hospital, Lafia, North-Central Nigeria

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Introduction: Nigeria has the highest burden of Sickle Cell Disease (SCD) globally, but it is not receiving the needed attention. **Aim:** To describe the morbidities, outcomes, and associated factors among children hospitalized with SCD at FUTH Lafia.

Methods: The clinical notes of patients with Sickle Cell Disease admitted to the Paediatrics Department of FUTH Lafia between December 2023 and November 2024 were analysed.

Results: Sickle Cell Disease accounted for 126 of 1898 paediatric admissions (6.64%). The median age at diagnosis was 2 years (IQR = 4). The indications for admission were vaso-occlusive crisis (57.1%), hyperhaemolytic crisis (20.6%), acute chest syndrome (7.2%), cerebrovascular accidents (6.3%), splenic sequestration (5.6%) and infections (3.2%). Infections leading to admission or precipitating crises were septicaemia (48.2%), malaria (36.4%), urinary tract infection (8.6%), osteomyelitis (3.6%), and pneumonia (3.6%). There were 5 deaths caused by CVA (60%), ACS (20%), and severe sepsis (20%). Health insurance cover was significantly associated with compliance to follow-up ($p = 0.001$), and follow-up, in turn with duration of hospitalization ($p = 0.028$). Twenty-three per cent of those not on hydroxyurea (HU) had a PCV <15% compared with 13.7% of those on HU; 14.9% of those not on HU were hospitalized for > 2 weeks as against 3.6%. Remarkably, all the mortalities but one were not on HU, follow-up, or with an insurance cover.

Conclusion: Institution of the newborn screening programme, a specialised health insurance programme, and comprehensive care for SCD children is recommended to reduce SCD-associated morbidity and mortality drastically.

PAN-GME-017

Exchange Blood Transfusion Averts Blindness in A Child with Sickle Cell Anaemia

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Introduction: Sickle cell disease (SCD) is a global health problem whose complications may result in decreased function and reduced quality of life. Central retinal artery occlusion (CRAO) is usually not common during a vaso-occlussive crisis. Exchange blood transfusion is one of the modalities that halt blindness in this group of affected children as it helps to decrease the percentage of sickle cells in the blood.

Case: A 7-year-old boy with Hb SC presents with skin rashes and fever of one week duration, body pains, and inability to see for a day duration. The inability to see progressed to total blindness. On examination, he was acutely ill-looking, moderately pale, moderately icteric, and had multiple crusted rash all over his body. The Glasgow Coma Score (GCS) was -15/15 and the patient had no light perception. Investigations revealed WBC - 15,000/mm^3, PCV - 18% (steady state PCV- 22%) Platelet - $357\times10^3/mm^3$, neutrophils -28%, lymphocytes - 69%, monocytes - 9%, and eosinophils - 01%. He was managed as a case of Vaso-occlusive crises with central retina artery occlusion. Exchange Blood Transfusion (EBT) with two units of fresh, genotype AA blood was done in less than 12 hours of presentation. In less than 24 hours of post-EBT, the patient was able to perceive light, thus his sight gradually improved. On the third day, the patient could see better, and the ophthalmologist's review showed a clear retina, with no signs of non- proliferative or proliferative retinopathy. Visual acuity was RE - 6/24, LE - 6/18. The patient is currently stable at the time of the report.

Conclusion: Sickle cell anaemia can potentially cause blindness which can be successfully averted with exchange blood transfusion using genotype AA donor blood.

PAN-GME-018

Snake-Bite Envenomation: Case Series Among Children Managed at the Emergency Paediatrics Unit of The Federal University Teaching Hospital Lafia Nigeria

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Introduction: Snakebite is more deleterious in children because of their larger body surface area. It has a 12% death burden per year in Nigeria. The victims are usually rural dwellers and farmers/herders.

Methods: The medical records of all children managed for snakebite from January 1st to December 31st 2023, were reviewed.

Results: A 14-year-old boy had a snakebite on the foot while fetching water at the stream. He presented 18 hours after, with progressive pain and swelling and deranged clotting time. He had antibiotics, fluids and anti-snake venom (Echitab®), and was

discharged after five days.

The second case was a 9-year-old boy sustained a snake bite on his foot 12 hours earlier while on the farm. There was swelling, pain with bleeding from the site and was placed on antibiotics, fluids and Echitab®, and was discharged three days later. The third was an 8-year-old girl who had a snake bite while defecating in the bush at night. She had altered consciousness, extensive leg swelling, ecchymosis and frank haematuria following the bite. She had severe anaemia, acute kidney injury, thrombocytopaenia and coagulopathy warranting blood transfusions and Echitab®. Her condition improved but the persisting renal injury necessitated referral for haemodialysis after seven days. She was discharged after another seven days at the referral facility.

Conclusion: There was no mortality in the three snake-bites cases managed over one-year. All the three were rural dwellers, bitten on their legs with two presenting within 24 hours. These cases highlight the importance of early presentation, use of the anti-snake venom and prompt referral for further management to avert mortalities.

PAN-GME 019

Human Immunodeficiency Virus-Exposed Infants: Audit of Care Since Inception at the University of Maiduguri Teaching, Maiduguri

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Introduction: Nigeria has the third -largest HIV burden in the world, after Mozambique and South Africa. In 2020, there were an estimated 21,000 new child HIV infections in Nigeria, the highest in the world, which accounted for 14% of the global estimate. Furthermore, at 15% and 10% respectively, Nigeria had the second-highest six-week and breastfeeding mother-to-child transmission of HIV (MTCT) rates in 2020. Reducing MTCT rates and new child HIV infections, uptake of, and compliance with interventional services in the prevention of mother-to child transmission of HIV (PMTCT) cascade are critically important.

Aim: To determine the final outcomes (PMTCT) of care among HIV-exposed infants in Nigeria.

Methods: This retrospective study focused on care for all HIV exposed infants whose mothers either had ANC and delivered at the same facility or their mothers did not benefit from ANC or was delivered out of health facility from 2008 to 2020.

Results: Over these periods, a total of 1729 HEIs were cared for and of these 1219 HEI had complete data and were analysed, giving a 71% retrieval rate. Sixty-three percent of HEI benefitted from PMTCT programme, 37% did not benefit from PMTCT. Males accounted for 49.8% of the cohort. The polymerase chain reaction test at first six weeks after was positive in 22 HEIs and PCR2 was positive in 31 HEIs. Anti-bodies test performed at 18 months after birth showed positivity in 31 HEIs and were diagnosed as HIV infected and were referred for paediatric care.

Conclusion: PMTCT and HEIs care programme have successfully prevented nearly all children being delivered to mothers infected with HIV once they adhere to their antiretroviral therapy (ART).

PAN-GME-020

Prevalence of Hepatitis B And Hepatitis C Co-Infection and Alanine Transferase Levels in HIV-Positive Children at Faith Alive Foundation, Jos

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Introduction: Nigeria has a high proportion of paediatric HIV infection, and children infected with both the Hepatitis B and C viruses face significant public health threats. The fact that these viruses have similar routes of transmission may help to explain claims of a high frequency of co- infection.

Aim: To determine the prevalence of hepatitis B and C co-infection with HIV and the alanine aminotransferase (ALT) levels among children receiving antiretroviral therapy in a secondary health facility in Jos, North-central Nigeria.

Methods: A cross-sectional study of 120 HIV/AIDS children was conducted at Faith Alive Foundation Hospital and PMTCT Centre Jos from August to November, 2022.

Results: The median age was 12.0 years; 45.8% were males, 96.7% were perinatally infected, all the children were on antiretroviral therapy (ART) and 10.3% had unsuppressed viral load. The prevalence of hepatitis B co-infection was 0.8% (1/120) while hepatitis C co-infection was not found in any of the participants. The median ALT was 19.0 IU/L and 7.5% of the participants had elevated values. There was no significant relationship between elevated ALT and HIV-Hepatitis co-infection. A viral load >1000 copies/ml and WHO clinical staging were significantly associated with an elevated ALT.

Conclusion: These findings indicate a low

frequency of HIV/hepatitis B and C co-infection in the studied group. ALT abnormalities, while unrelated to hepatitis infection, do develop in HIV-infection.

PAN-GME-021

Antimicrobial Prescription Pattern in the Paediatric Outpatient Clinic of Abubakar Tafawa Balewa University Teaching Hospital, Bauchi, Nigeria

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Introduction: The emergence of antibiotics in the 20th century marked a turning point in the reduction of communicable diseases worldwide. Overuse of antibiotics is a common problem in healthcare that leads to antimicrobial resistance, unnecessary expenditure and increased risks of adverse effects with no associated benefit. Inappropriate use of antibiotics is a principal modifiable risk factor for antibiotic resistance, and it is worse in Sub-Saharan Africa where infectious diseases have remained a serious healthcare threat. This underscores the role of antimicrobial stewardship, using data on antibiotic prescription patterns.

Aim: To assess the pattern of antimicrobial prescription among paediatric care practitioners in a tertiary out-patient setting.

Methods: A retrospective review of medical records of paediatric outpatients at the Abubakar Tafawa Balewa University Teaching Hospital (ATBUTH), Bauchi, from 1st January to 31st December 2021, was done. Demographic, diagnostic and prescribing variables were extracted from the patients' case folders.

Results: The median age was 2 years (IQR: 0.5-6 years). Out of a total of 531 patients, 56.3% (n = 299) were males. Antibiotics constituted 51% of all drugs prescribed (n = 582/1142). Most patients (90.4%, n = 480) received one antibiotic per consultation, predominantly via oral route (95.5%, n = 556). Upper respiratory tract infections were the commonest indications for antibiotic prescription (36.4%), while penicillin was the most prescribed antibiotic group (48.9%). The percentage of antibiotics from the essential list of medicine was 94%.

Conclusion: This study reveals high antibiotic prescription patterns, indicating a need for continuous antimicrobial stewardship and further studies.

PAN-GME-22

Hyperparasitaemia Among Children Presenting with Uncomplicated Falciparum Malaria in a Rural Community in Adamawa State, Nigeria

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Introduction. The WHO defines uncomplicated malarial hyperparasitaemia as parasite density of ≥ 4% parasitaemia but without signs of severity. These patients are at increased risk of severe malaria and treatment failure and are considered an important source of antimalarial drug resistance.

Aim: To examine the clinical outcomes of patients with uncomplicated malaria hyperparasitaemia with no initial features of severe malaria.

Methods: A prospective study of 91 children aged 6 months to less than 96 months with uncomplicated malaria hyperparasitaemia was carried out at Gyawana Primary Care Centre in Adamawa. A proforma was completed, history was taken, clinical examination along with malaria parasite density and Hb levels of all recruited children were also done.

Results: About forty-two percent (41.8%) were under five children and 99% of the total population had fever. The parasite density range was 202,909-1,198,571 with a geometric mean of 289,369. Only 23.1% of the patients had haemoglobin between 6-8g/dl, others had higher haemoglobin levels. The relationship between haemoglobin levels and geometric mean of parasite density were not statistically significant [p = 0.372 (Kruskal Wallis Test)]. All the children were treated with ACT, and all had zero parasitaemia on day-3 post-treatment. There was no case of progression to severe malaria or death.

Conclusion: The malaria parasite density criterion alone may not be adequate to make a clinical decision about the severity of the disease in a region of high malaria endemicity.

PAN-GME- 23

Prevalence and Outcome of Typhoid Intestinal Perforation in Children at the University Of Ilorin Teaching Hospital, Ilorin, Kwara State From January 2019 to December 2023

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Introduction: Typhoid fever is a potentially lethal systemic illness that is a global health concern, especially in resource-limited settings. A fatal

complication is typhoid intestinal perforation.

Aim: To determine the prevalence and outcome of typhoid intestinal perforation in children at University of Ilorin Teaching Hospital, Ilorin, from January 2019 to December 2023.

Methods: This was a 5-year retrospective study of children from birth to 15 years managed for typhoid intestinal perforation at University of Ilorin Teaching Hospital, Ilorin, Kwara State, from January 2019 to December 2023. The medical records of all the managed children were retrieved and evaluated.

Results: Sixty-seven (67) children were managed for typhoid intestinal perforation out of the 1324 paediatric surgical cases giving a prevalence of 5.1%. The prevalence was highest between 7 and 9 years. The highest prevalence was in 2019 (40.3%). The male- to-female ratio was 1.12:1. The most common management modality was exploratory laparotomy and simple closure (77.6%). The majority (71.64%) had various complications such as, surgical site infection (43.3%), malnutrition (17.91%), and wound dehiscence (13.43%). There were three deaths with a fatality rate of 4.48%.

Conclusion: The prevalence of typhoid intestinal perforation in children at UITH was low with a corresponding low mortality. However, it contributes to significant morbidity which remains a burden in developing countries. Therefore, concerted efforts by relevant health stakeholders to raise awareness about typhoid intestinal perforation should be encouraged.

PAN-GME-24

Pattern of Biochemical Parameters and Clinical Outcome in Childhood Cerebral Malaria

Alabi AO, Sayomi BA, Oladibu OT, Ojedokun SA, Oloyede TW, Akinbola AI.

Introduction: The outcome of children with cerebral malaria (CM) involves an interplay of many factors including clinical and biochemical parameters. Therefore, a deep knowledge of these biochemical parameters is essential.

Aim: To assess the pattern of the biochemical parameters in children with cerebral malaria and how it may affect the clinical outcomes.

Methods: A prospective observational/ cohort study of fifty subjects was done at the Children's Emergency Unit of LAUTECH Teaching Hospital, Ogbomoso. The participants were children admitted with fever, altered sensorium, demonstrable malaria parasite in the blood film and cerebrospinal fluid analysis not suggestive of central nervous system infections. Detailed history was taken with thorough examinations on each child. Samples were collected for malaria parasite, serum electrolytes, urea, creatinine, blood glucose estimation.

Results: Overall, 60% of the children survived without any sequelae with the highest proportion (70%) of survivors being above five years of age. Children with hypoglycaemia had a 3.5-fold higher risk of poor outcome (RR = 3.65, p = 0.014), hyperkalaemia (RR = 2.57, p = 0.009), hypochloraemia (RR= 3.07, χ^2 = 8.519, p = 0.004) and metabolic acidosis (RR = 1.99, χ^2 = 4.089, p = 0.043) were also significantly associated with poor outcome and mortality. The parasite density was significantly associated with serum bicarbonate and chloride, $p< 0.05$.

Conclusion: Hypoglycaemia, hyperkalaemia, hypochloraemia and metabolic acidosis were significantly associated with poor outcomes and are thus, good predictors of clinical outcomes in children diagnosed with CM. Periodic evaluation and monitoring of these parameters is essential for prompt intervention to forestall devastating outcomes.

PAN-GME-025

Exploring TB Contact Investigation as Underused Intervention for Childhood TB Case Finding in Southwest Nigeria in USAID TB-LON 3 Project

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Introduction: Tuberculosis (TB) remains a major public health issue in Nigeria. Childhood TB (CTB) is often overlooked, leading to delayed diagnosis and treatment. Despite being a promising strategy, TB contact investigation (CI) remains untapped in finding the CTB cases. Although it also has its implementation challenges – limited resources, weak healthcare infrastructure, and low awareness among healthcare providers and communities.

Aim: To showcase the importance of the strategy in finding CTB cases.

Methods: CI is an approach that encompasses assessment and evaluation of TB patient's household/close contacts followed by prescribing appropriate drug therapies for newly diagnosed cases or preventive treatment. A multifaceted strategy was devised for the implementation of CI - comprehensive training programs for healthcare

providers; guidelines and protocols adaptation and provision; community engagement initiatives to raise awareness and participation; and innovative technologies to facilitate data collection and reporting.

Results: The CI implementation yielded promising results. A steady increase in CI contribution to the total TB cases and more significantly, its contribution to total CTB cases. In the period under review, FY 2021 to FY 2023, a total of 77048 TB cases were identified and 4459 were CTB cases while 41113 of 77048 diagnosed cases were contact investigated and it yielded 2524 new TB cases; 423 of these 2524 were CTB cases.

Conclusion: CI is a vital yet underutilized strategy that needs to be scaled up significantly to increase TB detection, ensuring early diagnosis and treatment particularly in children. Without such a strategic approach, most of the CTB cases will be missed perpetuating the disease in the communities.

PAN-GME-026

The Impact of Molecular Stool Analysis in Finding Missing Child Tuberculosis Cases in Nigeria

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Introduction: Nigeria is a high TB burden country with paediatric incidence of over 60,000 child TB cases each year making 12 to 15% of the total estimated burden. TB in children thrives due to their low immunity and its non-classical symptoms. Additionally, the difficulty in expectorating sputum specimen for diagnosis and limited technical skill of healthcare workers to conduct a gastric lavage (to obtain specimen) contribute to the low case detection in children that lingered for two decades. In 2020, Nigeria piloted the use of stool analysis using Xpert MTB/Rif molecular platform and upscaled in 2022.

Aim: To estimate the contribution of stool Xpert MTB/Rif for the diagnosis of child TB to case notification in Nigeria.

Methods: This was a retrospective, descriptive, cross-sectional study covering five years and using secondary data extracted from the National TB Programme repository for children aged 0-14 years.

Results: The number of stool samples tested improved from about 7,642 in 2022 to about 80,279 in 2024 (Jan-Sept). MTB-detection and Rifampicin-resistance detection from stool improved from 442 and 16 in 2022 to 3,399 and 131 in 2023 respectively, and 3255 and 78 in 2024 (Jan-Sept). Total child TB cases identified also improved in both absolute numbers and in proportion from 12,977(6%) in 2021 to 36,197(10%) in 2023 and 2024 January to September 32,382(10%).

Conclusion: The use of stool-based diagnosis requires less skill and has helped improve child TB case-detection in Nigeria

PAN-GME-027

Impact of Training on Human Papilloma Virus Immunization-Related Activities of Immunization Champions in Nigeria

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Introduction: The deployment of HPV vaccine has been hampered by vaccine hesitancy occasioned by unfounded concerns about its safety and potential side effects. PAN/IPA trained immunization champions (IC) who would be resource persons for providing correct and accurate information on HPV and its vaccination while also advocating for vaccines in general.

Aim: To describe the impact of training on the HPV immunization-related activities of Immunization Champions.

Methods: ICs were recruited from 36 states and FCT. They were trained in national and regional workshops. Prior to the workshops, each IC filled in a pre-workshop assessment form. They also filled a post-workshop assessment form 6-8 months after the workshops.

Results: Majority of the ICs were health care workers. There were 326 ICs in the trained cohort, of which 268 (82.2%) and 260 (79.8%) filled the pre-workshop and post-workshop assessment forms respectively. One hundred and seventy-nine (66.8%) had ever recommended the HPV pre-workshop and this significantly increased to 260 (100%) post-workshop ($p<0.0001$). Prior to the workshops, 206 (76.9%) had been asked about the utility of HPV vaccine and this significantly increased to 251 (96.5%) post-workshop ($p<0.0001$). The number of ICs who had never responded to a negative vaccine sentiment reduced from 55 (20.5%) to 16 (6.2%) ($p<0.0001$) while the frequency of making a vaccine-related post increased significantly from 14.9% to 33.1% weekly ($p<0.001$). More ICs rated

themselves more competent to handle vaccine hesitant parents post-workshop.

Conclusion: Training of ICs is an effective intervention in improving the number of persons who provide accurate and reliable information on vaccine related topics, thus helping in combatting vaccine hesitancy occasioned by misinformation.

PAN-GME-028

Determinants of Insecticide Treated Mosquito Net Usage in Adamawa State, Nigeria

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Introduction: Insecticide-treated nets (ITNs) are a critical component of malaria prevention in Nigeria. Despite extensive distribution campaigns, usage rates and maintenance practices vary widely, particularly in North-eastern Nigeria. Examining socioeconomics and behavioural factors affecting ITN usage can guide targeted interventions to reduce malaria transmission effectively.

Aim: To investigate key determinants influencing ITN usage in Adamawa State, focusing on factors such as household characteristics, seasonal usage patterns, net maintenance practices, and sources of nets.

Methods: A cross-sectional survey conducted during the 2022 End of round Seasonal malaria chemoprevention programme, using questionnaire administered by research assistants visiting 1,008 households randomly selected from 6 LGAs in Adamawa state. Information generated includes ITN ownership, washing and drying practices, seasonal usage, and demographic characteristics. Descriptive statistics and chi-square tests evaluated associations between ITN usage and these factors.

Results: ITN ownership was high, with 83.2% of households owning at least one net, primarily provided for free. While children were prioritized, net usage fluctuated seasonally, with 54.8% using nets year-round and 44% only in the rainy season. Maintenance practices varied, as 56.8% dried nets in direct sunlight and 45.1% used detergent for washing, potentially compromising net integrity. Notably, 39.9% reported mosquitoes perching on nets, indicating decreased efficacy.

Conclusion: High ITN ownership in Adamawa State does not translate to optimal usage. Seasonal variability and maintenance habits, particularly improper drying methods, may reduce ITN effectiveness. Community education on consistent, year-round use and best practices for net care could significantly enhance malaria prevention efforts in the region.

PAN-GME-029

Enhancing Childhood Tuberculosis Case Detection in Nigeria: Insights from The *NigeriaQual* TB Project

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Introduction: The NigeriaQual TB Project seeks to improve the quality of TB service through infrastructure, performance measurement, and continuous quality enhancement. While adult TB case detection in Nigeria rose by 50% from 2020 to 2021, childhood TB detection increased only by 1%, falling short of the 10-15% expected in high-burden settings. This highlights a pressing need for targeted interventions to improve childhood TB diagnosis and reporting.

Aim: To identify barriers and enablers affecting childhood TB case detection in Nigeria, with the goal of achieving a 15% detection rate among all TB cases.

Methods: This study employed a mixed-method approach, reviewing six months of program data (January to June 2023) from 36 DOT sites across Nigeria's' six geopolitical zones. Quantitative data were analysed with R software, while qualitative data from key informant interviews (n = 36) were examined through inductive thematic analysis.

Results: Among the 36 respondents from each facility, 24 (67%) represented public health facilities and 21 (61%) had received training in childhood TB management. Facilities with 1-2 screening officers comprised 39% (14) of respondents; 3-4 officers in 31% (11); those with 5+ in 19% (7) while those without any were 11% (4). Child TB detection was notably higher in public facilities (57%), among staff with previous training (71%), and in facilities with 3-4 screening officers (31%).

Key informant interviews highlighted the shortage of screening officers at facilities' entry points, knowledge gaps among healthcare workers and inadequate funding for contact investigations as major barriers. Conversely, initiatives like “Child Testing Week” were recognized as effective in increasing TB detection.

PAN-GME-030

Unveiling Possible Gender Differences in Childhood Tuberculosis (TB) Case Detection: Insights from Nigeria's TB Testing Week

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Introduction: Case finding for tuberculosis (TB) in Children in Nigeria is low, with only 7% of estimated cases notified in 2022 when compared with the WHO benchmark of 12%. The Childhood TB Testing Week initiative was launched to enhance TB case detection among children while assessing the gender prevalence in Childhood TB. This is important to inform childhood TB epidemiology and attending interventions.

Aim: To assess Childhood TB cases during National TB Testing Week through a cascade and gender lens of identification, screening, diagnosis, and linkage to care.

Methods: Data from the Childhood TB Testing Week conducted from May 27 to 31, 2024, across Global Fund-supported sites across all states in Nigeria were analyzed by gender along the TB care cascade. Microsoft Excel was used to calculate proportions and percentages for key indicators across the TB care cascade from screening to treatment linkage.

Results: Of the 250,141 children reached, 53% were females (n = 132,527) and females represented 51% of presumptive TB cases (n = 23,469) compared to males 49%. However, a higher proportion of males were diagnosed with drug-susceptible TB (DSTB) at 1,062 (64%) compared to 893 (46%) for females ($p<0.05$).

Conclusion: TB case findings in children might have a gender prevalence like what is obtained in adults. More insight is required in gender-focused childhood TB case diagnosis which could better inform scientific and program interventions and decisions for enhanced outcomes and improve the overall yield of childhood TB care.

PAN-GME-031

Pattern of Severe Malaria Deaths at the Emergency Paediatric Unit of The Federal University Teaching Hospital, Lafia, Nigeria

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Introduction: Nigeria has the highest number of malarial deaths globally, contributing 39% of under-five malarial deaths but there may be spatial and temporal differences across and within geopolitical regions and institutions. Seven years ago, severe malaria (SM) accounted for 17.9% of childhood mortality with a case fatality rate of 7.3% in our institution. Has much changed since then, particularly in light of recent interventions such as seasonal malarial chemoprevention?

Aim: To describe the patterns of severe malaria deaths among children admitted into the Paediatric Emergency Unit of FUTH Lafia.

Methods: This was a retrospective study of severe malaria deaths among children aged 29 days to 18 years admitted to the Emergency Paediatric Unit between 1st November 2023 and 31st October 2024.

Results: SM constituted 16% (298/1868) of total admissions. There were 17 SM deaths, giving a case fatality rate of 5.7%, and comprising 8.6% each of overall (17/198) and under-five (13/151) mortalities. The mean age of SM death was 3.2±2.6 years; the under-fives and males made up 76.5% and 59% of the deaths respectively. Sixty-five percent of SM deaths were underweight. Cerebral malaria (53%) and severe anaemia (18%) were major contributors to mortality. The mean duration of symptoms and hospitalization were 3.7±2.0 days and 24.8.0±21.9 hours respectively; those with severe anaemia had delayed transfusion, most dying within 5 hours of admission.

Conclusion: The under-fives still bear the brunt of severe malaria deaths in Lafia even if current data seems to indicate declining mortality rates. Further, data suggest possible association of undernutrition with SM death. The recently introduced malaria vaccine is one of the control measures that should be targeted at this vulnerable group.

PAN-GME-032

Timeliness and Completion Rate of Vaccination and its Predictors Among Children 12- 23 Months In Obi L.G.A. Nasarawa State Nigeria

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Introduction: To maximize protection from vaccine-preventable diseases, the doses of childhood vaccines should be completed and within recommended time frames. This is because too early vaccination produces uncertain immune responses, and delayed vaccination prolongs susceptibility periods.

Aim: To assess the timeliness and timely completion rate of vaccination and its predictors in Obi L.G.A. of Nasarawa State Nigeria.

Methods: A secondary analysis of a dataset collected between October 2020 and January 2021 via a two-stage household-level cluster survey that assessed Vaccination coverage in Obi L.G.A. Three hundred and fifty-five vaccinated children aged 12 to 23 months with vaccination cards were included in this analysis. Timely vaccination was defined as receipt within 4 weeks of the recommended ages. Logistics regression was performed to identify the predictors of timely completion of vaccination.

Results: The mean ages of the children and their mothers were 16.5±3.4 months and 25.7±5.7 years respectively. Yellow fever had the lowest rate of too-early vaccination (2.8%) while PENTA 1 was the highest (18.4%). Between 10.7% (HepB at birth) and 30.6% (PENTA 3) of vaccinations were delayed. The timely administration ranged from 58.1% (PENTA3) and 56.4% (IPV) to 85.5% (BCG). Only 27% had timely completion of vaccines. Mothers' age <25yrs (AOR = 0.438, 95%CI:0.209-0.918, p = 0.029) and polygamous families (AOR = 0.435, 95%CI:0.191-0.987, p = 0.046) negatively predicted timely completion of vaccination.

Conclusion: In the study communities, a considerable percentage of vaccinations are administered too early or delayed. To guarantee the timely and complete uptake of childhood vaccinations, interventions aimed at both healthcare professionals and the general public are required. Mainstreaming of vaccination timeliness in programmatic evaluation is recommended.

PAN-GME-033

Clinical Presentation and Predictors of Hospital Mortality of Diphtheria in Nigeria, July 2023 to April 2024: A Single-Center Study

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Background: Despite recurrent outbreaks of diphtheria in Nigeria, there is a lack of in-depth analysis of hospitalization outcomes.

Aim: To describe the sociodemographic, clinical, and laboratory features that were associated with hospitalization outcomes (defined as death or discharge) during the recent diphtheria outbreak in Nigeria.

Methods: This prospective, observational study included 246 confirmed diphtheria cases managed in a dedicated isolation ward of a health facility in north-western Nigeria from July 1st 2023 to April 30th 2024. We analyzed clinical and laboratory features, immunization status, socio-demographics in relation to hospitalization death.

Results: The median age (interquartile range) was 7.00 (4–10) years, and 49.6% (122) were aged 5–10 years. Common clinical features were fever (95.9%), sore throat (91.9%), painful swallowing (90.7%), pseudomembrane (93.1%), and cervical-submandibular lymphadenopathy (91.5%). Most children were unvaccinated (158; 64.2%), and 199 (80.9%) received diphtheria antitoxin and both were related to the outcomes. Mortality rate was 23.5% (58/246). After adjusting for confounders, predictors of hospitalization deaths were neck swelling with an adjusted odds ratio (AOR = 9.80; 95% CI: 1.68–56.47), abnormal respiratory findings (AOR = 149.99; 95% CI: 15.60–1442.02), hypoxemia AOR = 37.79; 95% CI: 4.26–331.96), and elevated serum creatinine above 1.5 mg/dL (AOR = 107.78; 95% CI: 7.94–1462.38).

Conclusions: Diphtheria constitutes a significant burden in Nigeria, especially among children. Neck swelling, hypoxemia, abnormal respiratory findings and impaired renal function were predictive of hospitalized death. While anti-toxins and vaccination were related to the outcomes, they did not predict the hospitalization death.

PAN-GME- 034

Neonatal Predictors of Long-Term Severe Neurodevelopmental Impairment Among Survivors of Perinatal Asphyxia at Age 12–24 Months: An Ongoing Prospective-Cohort Study

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Introduction/Aims: Perinatal asphyxia is a leading cause of neonatal deaths and chronic neurodevelopmental impairment (NDI), affecting sensori-motor, intellectual/cognitive and socio-emotional functioning. Maternal and neonatal predictors of severe NDI (sNDI) may be potential targets for preventive and ameliorative interventions. However, predictors of long-term NDI among asphyxiated babies in Nigeria is little known.

Methods: Preliminary data from an ongoing prospective, cohort study of asphyxiated babies admitted at the Outborn Neonatal Ward, LASUTH, then followed up till 12-24 months when trained researchers conducted standardized

neurodevelopmental assessments (Bayley Scales of Infant/Toddler Development Screening Test, 4th-Edition). Numerical scores from each of five domains were classified as severe, moderate and mild/no NDI, respectively. sNDI was defined as severe NDI in all five domains. Mann-Whitney test and simple logistic regression (SLR) were used to compare baseline maternal and neonatal clinical/biochemical characteristics between those with/without sNDI.

Results: Of 23 children, sNDI occurred in 30.4% (7/23). T-test identified 5 neonatal admission factors associated with sNDI: worse Sarnat staging/scores ($p = 0.003$), longer neonatal hospitalisation ($p = 0.013$) and higher serum potassium ($p = 0.016$), bicarbonate ($p = 0.030$) and absolute neutrophil counts ($p = 0.002$). However, only higher serum potassium was associated with sNDI with SLR (unstandardized beta [95% CI] =2.5 (0.1, 5.0), OR [95% CI] =12.7 [1.1, 149.1], $p = 0.043$).

Conclusion: This limited data suggests that hyperkalemia, possibly a marker of asphyxia-induced neonatal kidney injury, is a predictor of later global neuro-developmental delay among asphyxiated neonates. Perhaps, early optimal and aggressive renal interventions among asphyxiated neonates (possibly including aminophylline) may have indirect impact on sNDI. However, larger samples are needed for verification.

PAN-GME-035

Congenital Hemidysplasia with Ichthyosiform Erythroderma and Limb Defect in a Nigerian Child: A Case Report

Solomon A, Adeniji Y, Hassan K, Raymond M, Jalo I.

Introduction: CHILD syndrome (Congenital Hemidysplasia with Ichthyosiform Erythroderma and Limb Defect) is an X-Linked dominant disorder caused by mutation in NAD(P)-dependent steroid dehydrogenase-like protein (NSDHL) gene which encodes an enzyme "3beta-hydroxy sterol dehydrogenase", essential for cholesterol synthesis. The gene is localized at Xq28. It mostly affects female and is lethal in males. It can be present at birth or manifest within the first week of life and persist in affected individuals. Patients with left-sided involvement have poor prognosis as the heart is likely to be affected. Cardiovascular malformations are responsible for early deaths in these patients. We report this case due to unique presentation and rarity.

Case: The patient presented at 1 hour of life following spontaneous vertex delivery to a 31-year old P3+0 (3 alive) at term at the Federal Teaching Hospital Gombe. Parents noticed right sided patches of the skin and limb defects at delivery. There was no history of ingestion of unprescribed medications, exposure to radiation or alcohol during pregnancy. No similar presentation in other family members. She has normal APGAR scores. On examination, the baby was conscious, with a sharp midline demarcation, including the scalp, right-sided erythematous patches of the skin covered with yellowish flaky scales, and ipsilateral hypoplastic limbs The birth weight was 2.7kg and other examination findings were unremarkable. Abdomino-pelvic USS and Echocardiography findings were normal. On the fourth day of life, she was managed for ophthalmia neonatorum and neonatal jaundice after which she was discharged. At follow-up, she failed to thrive and developed severe anaemia (PCV 13%) necessitating transfusion at three months of life**.**

PAN-GME-036

Congenital Neuroblastoma with Metastases at Birth: A Report of a Novel Case

Hassan L, Abdullahi FL, Abemi AM, Sambo MN, Uduu EJ, Suleiman A, Iduze AA, Abdulkadir I.

Introduction: Neonatal malignancies are rare with neuroblastoma being the commonest. Congenital neuroblastoma is diagnosed prenatally or within 28 days after birth. It originates in the neural crest cells, and metastasizes to the liver, lymph nodes, bone marrow and spleen. This is the first documented case in our centre.

Case: A term male baby, a product of a non-consanguineous marriage, was delivered via emergency caesarean section on account of severe maternal preeclampsia and abruptio placentae. The pregnancy was booked, USS at 24 and 28 weeks were normal and uneventful until 38 weeks when the mother developed severe preeclampsia and USS done then showed placental abruption. The birth weight was 3.1 kg with spontaneous respiration. The baby was pale at birth, had genaralised hard, nodular, non-tender subcutaneous nodules, sparing only the palms and soles, massive ascites, multiple, ballotable hard/firm intra-abdominal masses. He was tachypnoiec with SpO_2 of 98% in room air and clear lung fields. Normal cardiovascular features with blood pressure of 82/54mmHg and normal nervous findings.

Results/Discussion: Full Blood Count showed

severe leucopaenia, severe anaemia and mild thrombocytopaenia with no blast cells. Abdominopelvic USS and CT scans showed multiple intra-abdominal solid masses with intra-lesional calcifications and bilateral hydronephrosis from compression. The biopsy of the skin nodules showed a tumour disposed in solid sheets with uniform tumour cells having round to oval darkly stained nuclei and scanty cytoplasm within a moderate neutrophil fibrillary stroma and areas of necrosis. He had clinically advanced metastatic congenital neuroblastoma at birth with a poor prognosis and progressively deteriorated with manifestations of multiorgan metastases, compressive effects from tumour masses and died seven days into admission before a definitive diagnosis and appropriate/definitive treatment could be instituted.

Conclusion: Undiagnosed congenital neuroblastoma with metastases at birth is uniformly fatal. Universal health coverage would have aided prenatal diagnosis with possibly better outcomes.

PAN-GME-037

Newborn Screening for Sickle Cell Disease in Benue State Nigeria

Michael A, Mokuolu OA, Eseigbe EE.

Introduction and aim: Sickle cell disease (SCD) is the commonest inherited disorder in tropical Africa, and it is associated with poor health and social outcomes. Nigeria being the most populous African country contributes about half of the estimated 300,000 newborns with SCD annually. Early identification of SCD through Newborn Screening (NBS) is a highly effective strategy in reducing SCD morbidity and mortality, but despite the proven efficacy of NBS, large-scale implementation in Nigeria is lacking due to inadequate financial, laboratory, and technical resources. However, inexpensive easy- to-use tests that can differentiate common haemoglobin genotypes in newborn babies and can be done at remote sites have been developed, hence this study sought to pilot newborn screening in Benue State Nigeria.

Methods: This was a multi-centre cross-sectional study involving newborns attending immunization clinics at three selected facilities in Benue State. Newborns aged 0-6 weeks who presented for immunization during the study period were screened following informed consent using *Sicklescan* (BioMedomics, Morrisville, NC, USA). Sociodemographic data was collected, and results were given to the mothers following documentation while data was analysed using Microsoft Excel.

Results: A total of 955 newborns were screened over 9 months with 499 males and 456 females. The distribution of haemoglobin phenotypes showed HbAA (84%; 802), HbAS (14%; 138), and HbSS (2%; 15). Acceptance of NBS was 99.7% and post-test counselling was carried out.

Conclusion: The incidence of Sickle Cell Anaemia among Nigerian neonates was 2% and NBS can easily be incorporated into the immunization programme for large-scale newborn screening.

Funding: This work is sponsored by the RSTMH/NIHR grant

PAN-GME-O38

Neonatal Jaundice: Prevalence and Associated Factors at BUTH, Bauchi, Northeast, Nigeria

Musa AZ, Mustapha SS, Jibrin MA, Shuaibu K.

Introduction: Jaundice is the yellowish discolouration of the skin and sclera resulting from the deposition of excess bilirubin (hyperbilirubinemia) on the skin and mucous membranes. Most cases of neonatal jaundice are self-limiting with an excellent prognosis but in some cases, complications can ensue.

Aim: To determine the prevalence, associated factors and outcome of neonatal jaundice at the Special Care Baby Unit of a tertiary hospital in Bauchi, Nigeria.

Methods: This prospective, descriptive study was conducted over one year. Information captured included sociodemographic variables, maternal obstetric history, and physical findings of babies. Jaundice was assessed both clinically using visual assessment as the yellowish discolouration of sclera and mucous membranes and laboratory assessment using *Selectra ProS* chemistry analyser.

Results: One hundred and twenty (16%) out of 748 babies admitted were diagnosed with jaundice during the study period. Of these, 65 (54.2%) were males and 55 (45.8%) were females giving a M: F ratio of 1.2:1. Majority of the babies developed jaundiced within the first 72 hours of life. Sepsis (72.5%), ABO Incompatibility (25.8%) and prematurity (22.5%) were the leading causes of neonatal jaundice. All babies had phototherapy (100%) while only 29 (24.2%) of them had EBT. The number of patients with BIND scores of 4-6 (10.8%) and 7-9 (10.0%) were similar.

Most of the patients (81%) were discharged, eight (6.7%) were discharged against medical advice

(DAMA) and 14 (11.7%) cases resulted in mortality.
Conclusion: Neonatal jaundice is a common cause of morbidity and mortality in our environment, predominantly affecting males. Sepsis is identified as a significant causative factor. Effective management and early intervention are crucial in reducing the burden of this condition.

PAN-GME-039

Malaria Parasitaemia and Bacteraemia Among Preterm Babies at the Federal Teaching Hospital, Gombe, Nigeria

Adeniji Y, Hassan K, Raymond M, Amaza M, Jalo I.
Introduction: Neonatal malaria remains a significant but underexplored contributor to neonatal morbidity and mortality in malaria endemic regions. These newborns are also commonly at risk of sepsis. Malaria and bacteraemia in newborns have overlapping risk factors and clinical features making separating the clinical entities difficult.
Aim: To characterize the prevalence of malaria and bacteraemia amongst preterm babies who were screened based on clinical suspicion.
Methods: A retrospective study was conducted using medical records of 334 preterm neonates admitted to the Special Care Baby Unit (SCBU) of the Federal Teaching Hospital Gombe, from January 2023 to October 2024. Socio-demographics, clinical details and available laboratory results were recorded using a proforma.
Results: Malaria parasitaemia was present in (19.76 %) of preterm neonates. The prevalence was higher in males (5.1 %) compared to females (1.8%), although this difference was not statistically significant (p = 0.147) Blood culture samples were taken from 64 (19.2 %) preterms and about a quarter yielded no organism (15; 23.4%) while Gram-negative organisms predominated (37; 75.5%). The most frequent isolates were *Klebsiella* (9; 14.1%), *S. aureus* (8; 12.5 %) and *Pseudomonas aeruginosa* (5; 7.8%). *Candida albicans* was isolated from 3 (4.7%) babies; 43% of those with bacteraemia had malaria parasitaemia and 20 (6%) of the preterms had malaria parasite and positive blood culture.
Conclusion: Malaria and bacteraemia occurred in preterm newborns in our setting either in isolation or simultaneously. Therefore, efforts should be made to screen for both conditions on the basis of clinical suspicion.

PAN-GME-040

Prevalence of Neonatal Sepsis in Bingham University Teaching Hospital: A 5-Year Retrospective Study

Ihekaike MM, Uhunmwangho-Courage A. Izugbara DC, Shehu M, Slusher T.
Introduction and Aims: Neonatal sepsis is a systemic illness that occurs in newborns (during the first 28 days of life). It is a significant cause of morbidity and mortality among newborns. The aim of this study is to determine the prevalence and outcome of neonatal sepsis among neonates hospitalized at Bingham University Teaching Hospital's newborn unit.
Methods: A retrospective study of the medical records of all babies admitted with neonatal sepsis between January 2015 and December 2019.
Results: The records of 575 babies admitted during the period under review were analysed. A total of 227 (39.5%) were found to have had suspected neonatal sepsis based on clinical presentation, 64.8% of whom had early onset neonatal sepsis. Of these, 59.0% were male, 26.0% were preterm, and 41.0% were hospitalized within the first 24 hours of life. The majority were outborn (65.2%), and some co-morbid conditions observed were neonatal jaundice in 33.0%, and malaria in 9.3%. The duration of admission was more than seven days in 45.4% of the babies: the parents of 11.5% of them signed to leave against medical advice, and 13.7% died. Only 4.4% of these babies had blood cultures done, a tenth of which had positive blood culture results.
Conclusion: The prevalence of neonatal sepsis in Bingham University Teaching Hospital is high, but the rate of blood culture diagnosis is low. There is a need for improved laboratory support for the diagnosis of neonatal sepsis in our hospital.

PAN-GME-041

Enhancing Infection Prevention Practices in Neonatal Units: A Human-Centred Design Approach to Addressing Healthcare-Associated Infections in Nigeria

Kabir H, Umar HI, Labaran A, Jibir BW, Farouk ZL.
Introduction: The neonatal mortality rate (NMR) in Nigeria has remained alarmingly high, with neonatal sepsis—a leading contributor—accounting for 25% of neonatal deaths. Healthcare-associated infections (HAIs) contribute significantly, with poor hygiene during delivery and postnatal periods being major risk factors. Sepsis care bundles (SCBs) incorporating evidence-based interventions like hand hygiene and judicious antibiotic use are effective but underutilized in low- and middle-

income countries (LMICs).

Aim: To use the Human-Centred Design (HCD) to engage healthcare workers in identifying and solving local infection prevention challenges in neonatal units.

Methods: Conducted at Aminu Kano Teaching Hospital, this participatory study engaged healthcare workers (n = 20) through a workshop incorporating focus group discussions (FGDs), root cause analysis via Fishbone diagrams, and brainstorming sessions to co-create infection prevention solutions. Stakeholders from paediatrics, infection control, and environmental departments participated, supported by HCD-trained facilitators. Key infection prevention practices and local factors contributing to HAIs were identified, and prototype solutions were developed.

Results: Key findings highlighted systemic challenges, including lack of hand hygiene resources, overcrowding, and inadequate waste management. A significant portion of participants had limited understanding of infection prevention bundles (IPBs), identifying correct personal protective equipment (PPE), hand hygiene, and environmental cleaning practices. Through the Fishbone analysis, core issues such as poor infrastructure, inadequate staffing, and financial constraints were identified as primary causes of HAIs. Brainstormed solutions included improving healthcare workers' knowledge through orientation, regular training sessions, SMS reminders, and establishing IPC "champions" within the unit.

Conclusions: The HCD approach provided actionable insights for strengthening infection prevention in neonatal units by engaging frontline healthcare workers. Prioritized solutions focus on resource optimization, ongoing education, and fostering IPC compliance. Further evaluation of these interventions will assess their feasibility and effectiveness in reducing neonatal HAIs, with potential scalability to other LMIC settings.

PAN-GME-042

Enablers and Challenges of Family-Centred Care for Preterm Infants in a Tertiary Health Facility in Nigeria

Adeniji Y, Hassan K, Raymond M, Olabode O, Jalo I.

Introduction: Family-Centred Care (FCC) has been shown to reduce the duration of hospital stay, improve parental satisfaction and increase caregiver-infant bonding. Parents are major stakeholders in the care of their children and FCC equips them to fit into this role.

Aim: This study was part of a quality improvement initiative to enhance FCC in the newborn unit of Federal Teaching Hospital Gombe.

Methods: We used a phenomenological approach in this qualitative study carried out from August 2023 to April 2024. We conducted three Focus Group Discussions (FGD) with 20 parents of preterm babies recruited at the follow-up clinic until data saturation was achieved and one FGD with 14 nurses working in the newborn unit. The FGDs were recorded, transcribed, and thematic analysis was done. Data was managed using Nvivo version 1.0

Results: From the parents' perspective, the major themes that emerged as enablers included spiritual resources, parity, support from family and peers, early physical contact/feeding and skills of health workers. The challenges included fear, exhaustion, competing responsibilities, communication gaps, poor attitude of staff, and cultural interference. The nurses were relieved to have parents participate in the care of their children and felt empowered while teaching them. What they found challenging was mothers refusing to change previous perceptions or didn't keep to feeding time.

Conclusion: Individual, hospital and community-level factors influence the implementation of FCC for preterm babies. Inquiry into these factors and addressing them is likely to improve the experience of FCC.

P**AN-GME-043**

Ten Years of Newborn Respiratory Support and Six Years of Surfactant Replacement Trainings in Nigeria: Opportunities and Partnerships for Saving Newborn Lives

Okonkwo I, Ajanwaenyi J, Eyo-Ita E, Olaniyi O, Ikhurionan P, Bolaji O, Ekienbor O, CAneji C, Ekhaguere O, Ideh R, Okolo A, Omoigberale A.

Introduction: The determinants of newborn deaths in Nigeria are well known and are largely preventable. The training intervention was mainly on basic newborn resuscitation, oxygen use, improvised CPAP, the prevalent service intervention. Advanced newborn resuscitation (mechanical ventilation, CPAP) and surfactant replacement therapy (SRT) has been the missing link for saving Nigerian newborn lives. The respiratory support group (RSG) training began in 2014 and SRT trainings from 2018 in response to a dearth of newborn respiratory support services and

training for newborn healthcare workers.

Aim: To assess the impact of providing newborn respiratory support and SRT skills laboratory using simulation-based training techniques.

Results: In ten years and 30 training courses, 1195 newborn care providers (Consultant Paediatricians, senior registrars, registrars, medical officers, nurses, paramedics) were trained. There were 18 (60%) public and 12 ((40%) private (solicited) trainings at Lagos (6), Abuja (5) Port Harcourt (3), Kaduna, Benin, Ibadan (2), Asaba (2), Okija, Birnin Kebbi, Akure, Uyo, Kano, Enugu (1 each) and Cotonou, Benin Republic (1). The SRT (masterclass) trained 201 newborn healthcare practitioners in its first year at Abuja, Lagos and Port Harcourt on MIST/LISA surfactant administration techniques, subsequently became part of the respiratory support trainings. Surfactant uptake increased from 300 doses in 2019 to 7,535 doses by 2024. Newborn respiratory support services have been on the increase since the start of this project, and above 15 newborn health care facilities have been directly mentored to provide respiratory support and surfactant replacement services. The training materials are published as the manual of newborn respiratory support.

Conclusion: Advanced newborn resuscitation and surfactant replacement therapy using novel methods and simulation-based teaching has indeed increased the provision of newborn respiratory support services and surfactant uptake in Nigeria and the West African subregion. This project has been a partnership with the Paediatric/Neonatal professional societies, associations, college and faculty members of the RSG, in collaboration with the industry and international faculties for saving newborn lives.

PAN-GME-044

Factors Associated with Outcome of Preterm Admission at the Modibbo Adama University Teaching Hospital, North-eastern Nigeria

Bulus WS, Baba FJ, Bulus SG, Bakari HB, Adzu Y, Kumanda V, Samaila S, Mustapha B.

Introduction: Preterm birth is a global challenge, recognized as a major risk factor for child mortality. It is linked to both short- and long-term medical and financial burdens for affected children, families, and the healthcare system. Preterm survival rates in resource-limited settings are low and vary by location.

Aim: To assess the survival rates and factors affecting outcome of preterm babies in Modibbo Adama University Teaching Hospital (MAUTH), Yola.

Methods: This was a retrospective descriptive study conducted in the Special Care Baby Unit (SCBU) of Modibbo Adama University Teaching Hospital, Yola. It involved reviewing case notes of preterm babies admitted between 1st May 2021 and 1st June 2023.

Results: There were 2059 admissions into the SCBU during the two-year period. Out of this, 589 (28.6%) were preterm babies and 542 preterm were studied. Female preterm were 284 (52.8%) and 254 males preterm 254, with the female to male ratio of 1:1.12. The overall survival rate at discharge was 58.86%. The survival rate was lowest in the extremely low birth weight group (5/36; 13.89%) and extremely preterm babies (2/16; 12.5%). Significant association ($p<0.0001$) was observed between birth weight, gestational age, place of birth and survival. Birth weight was a strong predictor (AOR = 7:61; 95%CI = 2.51-23.08; p = 0.001) of preterm survival.

Conclusion: This study observed a high mortality rate among preterm babies, which decreases with increasing gestational age and birth weight. Various neonatal factors, alone or combined, were strongly associated with in-hospital mortality.

PAN-GME-045

Accuracy of Platelet-Lymphocyte Ratio (PLR) And Neutrophil- Lymphocyte Ratio (NLR) In Predicting Neonatal Sepsis at The University College Hospital, Ibadan

Sobande OJ, Tongo OO, Orimadegun AE.

Introduction: Neonatal sepsis require prompt and accurate diagnosis to inform treatment and avert mortality. The menace of antimicrobial resistance makes it imperative to carefully exclude those without infection from unnecessary antibiotic exposure. There are challenges with current methods of diagnosing neonatal sepsis which is worse in resource constrained settings.

Aim: To investigate the accuracy of PLR and NLR which are derived from parameters of the full blood count in predicting neonatal sepsis at the University College Hospital, Ibadan.

Methods: This was a cross-sectional study of 243 newborns with suspected sepsis who had blood cultures, FBC, and CRP tests. The predictive accuracy of PLR, NLR and CRP for sepsis diagnosis was evaluated using the Receiver Operating

Characteristic Curve analysis to determine their optimal thresholds.

Results: Thirty-four neonates (14.0%) had positive blood cultures. The optimal cut-off values for PLR and NLR in predicting culture-proven sepsis were 198.39 and 2.965, respectively. The sensitivity (95% CI) for PLR was 20.59% (8.7,37.9) and NLR 47.06% (29.78, 64.87), while specificity was 95.69% (91.98, 98.01) and 63.16% (56.23, 69.71) respectively. The predictive accuracy for PLR was 85.19% (95% CI: 80.08, 89.40) and NLR, 60.91% (95% CI:54.46, 67.08). The AUC for PLR was 0.51 and NLR, 0.52. Binomial regression for combinations of biomarkers for culture-proven sepsis showed that combinations with CRP had the highest coefficient estimates ($p < 0.05$). The combination of NLR with CRP best predicted culture-proven sepsis ($p<0.001$).

Conclusion: Combination of CRP with either NLR or PLR is recommended to improve the diagnosis of neonatal sepsis

PAN-GME-046

Reasons for Delay in Caregiver Seeking Healthcare for Sick Neonates at the University College Hospital, Ibadan

Akindolire AE, Oladehin TO, Alao MB, Tongo OO.

Introduction: Neonatal mortality remains high in Nigeria with many neonates presenting to tertiary facilities late. Delay in health seeking for newborns contributes to mortality. A knowledge of the reasons for the delay in caregiver seeking healthcare will provide information necessary to address this situation.

Aim: To describe the reasons for delay in presentation for healthcare among neonates presenting at the University College Hospital Ibadan.

Methods: This was a prospective study of consecutive neonates presenting at UCH, Ibadan over a six-month period. Details of patients' demographics, antenatal and perinatal history, delivery and presenting clinical features were entered into a structured questionnaire, while details of prior care and reasons for delay (if any) were recorded using a semi-structured questionnaire. The delay was presenting >24 hours after onset of complaints.

Results: There were 126 subjects comprising 91(72.2%) males and 35 (27.8%) females with a mean age of 5.0±6.5 days. The commonest presenting features were jaundice 42 (33.3%), poor cry at birth 37 (29.4%) and respiratory distress 30 (23%). Half 63 (50%) of the patients had delay in presentation, the mean delay was 71±89.4 hours. The most common reasons given for the delay were: ‘thought it would resolve' (31; 49.2%), 'unaware of the implication' (19; 30.2%) and previous treatment. Of those with delay, 34 (54%) had been to a health facility and cited delay in referral.

Conclusions: Delays in presentation remains common among sick neonates. Efforts targeted at improving caregiver of sick neonates as well as feedback to secondary health facilities on early referral will go a long way in promoting early presentation.

PAN-GME-047

Challenges and Outcomes of Paediatric Dialysis in a Tertiary Referral Hospital in Northwest, Nigeria

Abubakar Y, Bugaje MA, Akuse RM, Abdullahi I, Kazeem A.

Introduction: Acute kidney injury is associated with substantial morbidity requiring urgent intervention like dialysis. Dialysis is usually paid for out-of-pocket posing a high financial burden on the caregivers. This usually leads to irregular dialysis sessions and a high rate of abandonment of dialysis with consequent high morbidity and mortality.

Aim: To highlight the challenges and outcomes of dialysis in children in Ahmadu Bello University Teaching Hospital, Zaria.

Methods: An observational, descriptive study involving 55 children admitted with renal failure who had dialysis as a form of renal replacement therapy.

Results: Fifty-five children aged 3 months to 15 years, with a mean age of 8.0±4.8 years were recruited. The majority were males 31(56.4%) and 74.6% were referred from other health facilities. AKI, CKD, and Acute on CKD accounted for 85.5%, 1.8%, and 12.7% respectively. Sepsis was the commonest cause of AKI accounting for 54.6%. Thirty-nine (70.9%) and 16 (29.1%) had haemodialysis (HD) and peritoneal dialysis (PD) respectively. Seven (12.7%) abandoned dialysis, 24 (43.6%) died, 22 (40.0%) with AKI resolved, while 1 (1.8%) each was referred or discharged against medical advice. Thirty-six (65.45%) of children experienced severe financial difficulties which was significantly related to their poor outcome (abandoned dialysis and death, ($p = 0.003$). Almost half (45.5%) of the patients presented late, which

was significantly associated with mortalities, (p = 0.0003) while 12 (75%) who had PD experienced a lack of PD fluid.

Conclusion: Dialysis in children is a lifesaving procedure but is usually faced with several challenges resulting in the death of patients or abandonment of treatment

PAN-GME-048

Point of Admission Serum Electrolytes in Children with Severe Acute Malnutrition in Usmanu Danfodiyo University Teaching Hospital, Sokoto

Ugege MO, Rufai AI , ,Badru OA, Akintunde O, Abubakar F, Yusuf T, Jibrin B.

Introduction: Severe acute malnutrition (SAM) is a major cause of morbidity and mortality among under-5 children in sub-Saharan Africa. Dyselectrolytaemia has been documented as a major contributory factor.

Aim: To determine the association between serum electrolytes levels, presenting symptoms and comorbidities in children with SAM aged 6-59 months at the Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, Nigeria.

Methods: A cross-sectional study was conducted at UDUTH, Sokoto among 63 children admitted for SAM over a six-month period. A convenience sampling method was used and consent was obtained from the caregivers. Serum electrolytes were done at admission. Biodata, presenting symptoms, anthropometry, comorbidities and electrolyte results were recorded. The association between serum electrolytes derangement and the symptoms/comorbidities was analysed.

Results: Most of the children were males (63.6%) and aged 12-36 months (77.8%). Children with non-oedematous SAM were 52 (82.5%). The mean sodium and potassium were 128.2+8.69 mmol/l and 2.82+1.24 mmol/l respectively. The commonest electrolyte derangement was hyponatraemia in 51 (81%) children, followed by hypokalaemia among 44 (70%). The commonest presenting symptoms and comorbidity were fever (81%) and probable sepsis (60.4%) respectively. There was a statistically significant association between serum sodium and vomiting (p = 0.012). Whereas there was no significant association between the serum sodium and potassium values and presence or absence of the other symptoms and comorbidities.

Conclusion: Hyponatraemia is the commonest electrolyte derangement in children with SAM particularly those presenting with vomiting and sepsis. This study recommends routine electrolytes check at admission of all children with SAM.

PAN-GME-049

Health Education Effect on Oral Rehydration Solution Use for Childhood Diarrhoea Management Among Mothers in Kano State, Nigeria

Kabir H, Ibrahim HU, Farouk ZL, Aliyu IS.

Introduction: Nigeria is still facing high diarrhoea and cholera rates, especially among under- fives. Despite Oral Rehydration Solution's (ORS) effectiveness, its use is still suboptimal, mainly due to inadequate knowledge and improper use among mothers, particularly in rural communities.

Aim: To assess the effect of health education on mothers' use of ORS for home management of childhood diarrhoeal disease in Dawakin Kudu, Kano State, Nigeria.

Methods: A quasi-experimental design with an intervention and control group was conducted over a three-month period. The study participants involved 100 mothers who had children aged 5 years and below and had experienced diarrhoea in the three months prior to the study. The experimental group received health education on proper usage of ORS while the control group did not. Data was collected using an interviewer-administered questionnaire. Pre- and post-intervention test scores were compared.

Results: There was an increase in the mean score in the experimental group from 62.24±20.15456 to 75.18±17.14963, indicating an increase in knowledge by 32% (p< 0.05), and effectiveness of the health education intervention. The control group had a reduction in mean scores by 5.2%, indicating loss of knowledge without any reinforcement.

Conclusion: This study has demonstrated that focused health education significantly improves knowledge and practices of ORS for home management of diarrhoea.

PAN-GME-050

Childcare Practices and Nutritional Status in Children Aged 6-59 Months Living in Orphanage Homes in the Federal Capital Territory, Abuja

Onyenwere VN, Okechukwu AA, Ajanaku I.

Introduction: Good nutrition lays the foundation for healthy living. Malnutrition is a direct or underlying cause of deaths of children under 5 years of age. Malnourished children come from the

poorest households and children living in orphanage homes experience a fall in their food intake and have diminished access to health care. Poor nutritional status in orphanage children from inadequate food intake and poor care practices has the potential of placing an enormous burden on the healthcare system in the future and reducing effective workforce in the nation, hence the need for this study.

Aim: To evaluate the childcare practices and nutritional status of children aged 6 months to 59 months of age living in orphanage homes in the FCT.

Methods: It was a cross-sectional, descriptive study carried out in orphanages in the Federal Capital Territory between 3rd January and 30th May 2023. One hundred and twenty children were recruited from 20 orphanages by a multistage random sampling technique. A structured, interviewer administered questionnaire was used to obtain information on the orphanages, study participants and care practices. Physical examinations for signs of malnutrition and anthropometry were carried out. Samples were collected to assay serum albumin and ferritin levels.

Results: There were 120 children aged 6-59 months with mean age of 32.1±16.1 months and female-to-male ratio of 1:0.7. Of these, 108 (90%) were not breastfed at all. Of the fifteen children who were wasted, 12 (80%) commenced complementary feeds at 4-5 months. The age at introduction of complementary feeds had a positive significant correlation with wasting ($p = 0.040$). Eighteen (15%) had regular growth monitoring, 97 (80.8%) had vitamin A supplementation, 108 (90%) had regular deworming, 72 (60%) used ITN and all (100%) were up to date with their immunizations.

The prevalence of wasting, underweight and stunting were 12.5%, 21.7% and 18.4% respectively. Fifty-three (44%) of the study participants had clinical signs of malnutrition. The commonest was hair depigmentation present in 20 (37.7%) of them.

The mean serum ferritin level was 100.9±16.1ng/ml and there was no statistically significant correlation between serum ferritin levels and the nutritional status of the children. The mean serum albumin level among the study participants was 40.2±7.6g/l. Serum albumin level had significant positive association with underweight, stunting and wasting ($p = 0.003$, 0.010 and 0.026 respectively).

Conclusion: The high prevalence of wasting, underweight and stunting among children residing in orphanages in the Federal Capital Territory is of public health significance. Early introduction of complementary feeds is a significant contributor to wasting. There is need for further studies on institutionalized children in Nigeria and urgent need for the Government and other stakeholders to ensure adequate support and monitoring of children in orphanage homes.

PAN-GME-051

Cutaneous Larva Migrans in a Nigerian Male Neonate with Scalp and Facial Cellulitis: A Case Report

Oyedokun A, Hamza A, Mohammad A, Garba NA, Farouk Z.

Introduction: Cutaneous larva migrans (CLM) is a helminthic infection usually demonstrated by creeping migration of larva through the skin. It is transmitted when animal faeces containing eggs are deposited in the soil, and the larvae enter the humans through direct contact with skin. CLM is an erythematous, serpiginous, cutaneous eruption caused by accidental percutaneous penetration and subsequent migration of larvae.

Aim: To describe a case of CLM with associated scalp and facial cellulitis seen in Special Care Baby Unit of Federal Medical Centre Nguru Yobe State.

Case: An 8-day-old male neonate presented with a progressive migratory lesion involving the scalp, which started on the 6th day of life. The lesion was a raised serpiginous-like lesion which gradually progressed in a tortious manner extending to involve the face, right upper limb, trunk and later, rest of the body, with some areas ulcerating along its tract. There was no associated fever. Traditional medications were applied to lesion/ulceration on the face and scalp. Baby was seldom laid on a mat while mother did domestic chores but there were lots of cats in their home. The examination of the skin integuments showed multiple thread-like lesions progressing to erythematous, tortuous serpiginous tract involving the scalp, abdomen, arm and leg with extensive discharging ulceration on the scalp and right side of face. He was managed with albendazole and antibiotics.

Conclusion: This report creates awareness about the condition and provides guidance to treatment in a low-resource setting environment.

PAN-GME-052

A Two-Year Review on Acute Bacterial Meningitis Outcome at the Edward Francis Small

Teaching Hospital, The Gambia

Jay T, Isatou J, Anna K, Edward B, Pa Lawrence M, Uwaezuoke NA.

Introduction: Acute bacterial meningitis (ABM) is a severe infection in children affecting the meninges and its subarachnoid space. If not treated, it always results in death.

Aim: To elucidate the outcome of all children managed for ABM in 2023 and 2024 in the Edward Francis Small Teaching Hospital Banjul, Gambia.

Methods: The case notes of all children managed for meningitis between 2023 and 2024, were retrieved and standard proforma information retrieved. A total of 46 ABM cases were managed in the period under review but only the data of 26 children were retrieved and analysed.

Results: The mean age of those who had ABM was 3.54 ±3.89 years with equal sex distribution. Most (61%; 16/26) of the patients were referred; of the referred cases, 31% (5/16) were from Farafenni Health Center, 18% (3/16) from BMGH FMG and eight other health facilities. Most referrals were in April and June 2023, and January 2024 with three referrals each.

Lumbar puncture was successful in 84% (22/26) of the cases with one dry tap and one done as post mortem. The Cerebrospinal fluid (CSF) was turbid in 9% (2/22), cloudy in 18%. Dipstick bedside test was done on three samples and only 18% of the samples had CSF biochemistry done. One sample had gram positive cocci and one sample cultured *Salmonella* spp.

PAN-GME-053

Visual Impairment Among Children with Epilepsy at the Jos University Teaching Hospital, Nigeria

Uhunmwangho-Courage AO, Alfin RJ, Lagunju IA, Ejeliogu EU.

Introduction: Visual impairment (VI) may be one of the least reported neurologic comorbidities among children with epilepsy. However, its impact on the child's development and quality of life makes it of public health importance.

Aim: To determine the prevalence of VI and the clinical and schooling factors associated with VI among children with epilepsy (CWE).

Methods: This was a cross-sectional comparative study. Eligible CWE being managed at the neurology clinic of Jos University Teaching Hospital (JUTH) and their age and sex-matched controls from schools and the community were recruited. Vision was assessed using the American Academy of Paediatrics guideline for visual systems assessment and categorised using the ICD 11 guidelines.

Results: One hundred CWE and 100 controls aged between 1-18 years were recruited, with a male-to-female ratio of 1.2:1. The prevalence of VI among CWE (5.0%) was significantly higher than the prevalence (2.0%) among the controls ($p< 0.001$). Vision loss in both groups was in the moderate VI category. No association was found between patients' clinical parameters and VI. Similarly, although the CWE had significantly poorer schooling history compared to the control group ($p< 0.001$), no statistically significant relationship was found between VI and schooling history ($p = 0.363$) or school performance ($p = 0.130$) of CWE.

Conclusion: VI is more common among CWE compared to their controls but has no significant association with clinical parameters, schooling history or school performance of CWE. An interdisciplinary approach involving caregivers, teachers, paediatricians and ophthalmologists will enhance early detection and management of VI in childhood epilepsy.

PAN-GME-054

Septic Cavernous Sinus Thrombosis in a 14-Year-Old Male Adolescent from Sokoto, Nigeria

Rufai IA, Jiya FB, Ibitoye PK, Olabisi IY, Mahmud A, Magaji GM, Zago A, Adamu IL.

Introduction: Septic cavernous sinus thrombosis (CST) is a rare but lethal condition. It is commonly caused by *Staphylococcal aureus* and often mis-diagnosed as orbital cellulitis or meningitis. There's limited report of CST from sub-Saharan Africa, including Nigeria. We report a case of CST managed at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, Nigeria.

Case: A 14-year old male adolescent presented to the Emergency Paediatric Unit of UDUTH, Sokoto, with a three-day history of fever, headache, photophobia and neck pain, and a day history of altered level of consciousness with left eye swelling. While on admission, he developed right eye swelling. Symptoms were preceded by upper lip and tooth ache. He also had six-month history of recurrent purulent right ear discharge. He was afebrile (37.1℃) with Glasgow coma score of 9/15 and had no signs of meningeal irritation. He had tender peri-orbital oedema, proptosis and chemosis on the left eye and lateral rectus palsy on the right eye. The diagnosis of septic CST was entertained.

Full blood count showed leukocytosis (predominantly neutrophilia). Cerebrospinal fluid and blood cultures yielded no growth. Brain CT findings were normal. There was no facility for Brain MRI with contrast and venography. Intravenous ceftriaxone, metronidazole and dexamethasone were commenced and he was co-managed with the Otorhinolaryngologist and ophthalmologist. He improved significantly and had good vision. He was discharged and has remained stable on follow-up visits.

Conclusion: Septic CST if promptly detected is treatable and preventable. A high index of suspicion is however, required.

PAN-GME-055

Sotos Syndrome with Right Sided Hemiplegia: A Rare Case in a 14-Month Old Girl

Ahmed HK, Ahmad MM, Sani UM, Mikailu AJ.

Introduction: Sotos syndrome, also known as cerebral gigantism, is a rare genetic disorder characterized by increased physical growth, distinctive facial appearance and developmental delay. It is due to mutation in the NSD1 gene on chromosome 5. This is the first known reported case from Northern Nigeria.

Case: A 14-month-old girl was seen at the Paediatric Neurology clinic with complaints of seizures from three months of age, delayed motor and speech milestones, and right-sided hemiparesis also from three months of age. Perinatal history was uneventful. Seizures had evolved since onset from generalized tonic-clonic to atonic and presently mixed type. Examination findings showed a plumply girl, with large hands and feet. Her hight was 87cm (97th percentile) and weight of 12.5kg (>97th percentile). Craniofacial dysmorphic features of prominent broad forehead, dolichocephaly, high anterior hairline, sparse hair in frontoparietal region, down-slanting palpebral fissures, hypertelorism, and prominent long pointed chin. Additionally, there was a right sided hemiplegia with muscle power of 4/5. Haemoglobin electrophoresis showed AS pattern, EEG revealed focal epileptiform discharges at the mid temporal region with slowed background activity. Brain CT scan was requested.

Patient was initially on carbamazepine which was changed to oral phenobarbitone and seizures had since been controlled. She is also on physiotherapy with improvement in motor milestones (can sit unsupported).

Conclusion: Sotos syndrome should be considered in children who present with accelerated growth, developmental delays and facial dysmorphism. The diagnosis is clinical, but complimentary tests help as they rule out other possible causes for such an association of symptom. Treatment should be individualized and follow ups are important as or when complications arise.

PAN-GME-056

Is Estimation of Blood Levels of Lead, Arsenic, and Mercury Indicated in Children with Autism?

Hamza N, Lagunju IA, Zoaka H.

Introduction: The pathogenesis of the development of autism is unknown till date. There have been speculations that exposure to high levels of heavy metals is one of the environmental factors responsible for the development of autism. This has led some clinicians to routinely test for these heavy metals and offer chelation therapy to those identified with high levels. Very common among these metals are lead, arsenic, and mercury; all of which do not have biologic levels.

Aim: To identify the level of evidence for the routine estimation of serum/blood lead, arsenic and mercury in children with autism.

Methods: An online search was conducted with the key words, autism, blood levels, lead, arsenic, and mercury. The recovered articles were evaluated, the key findings were summarized, and the evidence weighted.

Results: Lead (Pb) appears to be the most identified heavy metal in the blood of children with autism and controls alike as seen in five of the papers reviewed. Despite some authors making a recommendation for routine testing, none of the reviewed articles established a relationship between the metals and development of autism or autism severity levels. The overall findings in this review are inconsistent with all the reviewed articles having low level of evidence.

Conclusion: There is no tangible evidence in support of routine estimation of blood levels of lead, arsenic and mercury in the evaluation of children with autism spectrum disorder.

PAN-GME-057

Neurodevelopmental Assessment of Survivors of Perinatal Asphyxia at Age 12–24-Months Using Bayley-4-Screening Test: An Ongoing Prospective Cohort Study

Ubuane PO, Salisu MA, Igbekoyi OC, Kehinde OA, Onu CC, Latremouille S.

Introduction/Aims: Perinatal asphyxia, defined as inability of newborns to initiate/sustain post-birth respiration, is a leading cause of neonatal death and lifelong neuro-disability, in the developing world, Nigeria inclusive. However, there is data scarcity on the spectrum of long-term neurodevelopmental impairment (NDI) among perinatal asphyxia survivors, to guide preventive and rehabilitative interventions.

Methods: Preliminary data from an ongoing prospective, cohort study of asphyxiated babies discharged from the Out-born Neonatal Ward, LASUTH, Ikeja. Trained researchers conducted standardized neurodevelopmental assessments (NDA) with Bayley Scales of Infant/Toddler Development Screening Test (4-thEdition) at ages 1-2 years. Numerical scores from each of the five domains (cognition, receptive-communication, expressive-communication, fine-motor and gross-motor) were categorised as high- risk, moderate-risk and low-risk; then re-classified as severe, moderate and mild/no NDI, respectively.

Results: Twenty-three children, comprising 78.3% boys (n = 19/23) were assessed at median age of 28.5 months (IQR = 18.4, 22.4; Range = 12.2-27.4) The incidence of severe, moderate and mild/no NDI for cognition: 47.8%, 30.4% and 21.8%; receptive-communication: 47.8%, 47.8% and 4.3%; expressive-communication: 30.4%, 52.2% and 17.4%; fine-motor: 30.4%, 30.4% and 39.1%; and gross-motor: 30.4%, 21.7% and 47.8%, respectively. Severe NDI in at least one domain occurred in 56.5% (13/23). Severe/moderate NDI was commonest with expressive-communication (82.6%) and cognition (78.2%) and least in gross-motor (52.1%). Overall, global neurodevelopmental delay (severe NDI across all domains) occurred in 30.4% (7/23).

Conclusion: This limited data suggests high incidence of serious life-limiting neuro-impairments/neuro-disabilities (especially communicative and cognitive) among surviving asphyxiated children, requiring intensive life-long neurodevelopmental interventions. Expanded access to optimal antenatal-care-for-all, effective neonatal neuroprotective interventions, routine NDA and targeted early-life neurodevelopmental interventions are urgently advocated.

PAN-GME-058

Pilot Study: Training Traditional Birth Attendants on Helping Babies Breathe and Essential Care of the Newborn at Ifako Ijaiye Local Government Area Lagos State

Ajayi-Obe EK, Disu EA, Ekpo O, Olutekunbi O, Oluwabiyi O, Esan O, Akande A, Odukoya O, Oyesanya A, Akin-Obembe O, Aina O.

Introduction: Seven million babies are born annually in Nigeria, mortality rate 39/1000LB (271,000 deaths) according to the 2018 NDHS, second to India. Traditional birth attendants (TBAs) deliver 60% of all births. In Lagos State 600,000 births occur annually, mortality rate 35/1000LB, (21,000 deaths). The high newborn mortality is often linked to TBA deliveries. Neonatal sepsis, birth asphyxia and prematurity, are the leading causes of death.

Aim: To document evidence that TBAs can be trained on helping babies breathe (HBB) and essential newborn care (ENCC) consequently reducing neonatal mortality.

Methods: Controlled intervention study to train and continually assess TBAs on HBB and ENCC using the train-the-trainer model for 9-months. Intervention and control LGAs were Ifako-Ijaiye and Agege respectively. Eleven health professionals and one TBA from the Ifako-Ijaiye were trained at a three-day workshop, they in turn trained 48 TBAs using an adapted pictorial manual, supervised by Master Trainers.

Results: Two (2) TBAs had scores below 50% in pre and post-tests for ENCC, median score 66% and 83% respectively ENCC. Median HBB pretest score was 90.5% and 10 months later the median score was maintained at 93.3%. During the nine-months period of TBA follow-up: 491 births, 33 resuscitated all with good outcomes, no deaths, 17 referrals, 477 referred for immunisations.

Conclusion: Trainers demonstrated readiness to train and TBAs the ability to imbibe, knowledge and skills in HBB and ENCC. Language instruction needs to be considered. The training of TBAs in HBB and modified ENCC has the potential to substantially reduce newborn mortality and morbidity

PAN-GME-059

Social Determinants of Health Associated with Hypoglycaemia and Outcomes Among Children in North-western Nigeria: A Cross- Sectional Study

Ibrahim O, Amudalat I, Abdulkareem JF, Rafiu TB.

Introduction: Social determinants of health (SDH) are an emerging concept with significant influence

on health and may have an impact on children presenting with acute illnesses including those with hypoglycaemia.

Aim: To explore the relationship between SDH and the prevalence of hypoglycaemia and outcomes among children presenting with acute emergencies in north-western Nigeria.

Methods: This was a descriptive, cross-sectional study of children admitted into the emergency ward of a tertiary hospital in north-western Nigeria. At the presentation, we obtained socio-demographics and relevant clinical information along with random blood glucose.

Results: A total of 597 children were studied, with a median (interquartile range) age of 3.5 (1.3 to 8) years. Most children were under 5 years of age (337; 56.64%), and males (328; 54.9%). Most mothers of the children included had no formal education, 76.7% (458). The prevalence of hypoglycaemia (< 2.8 mmol/L) was 8.2% (49/597), with a 99% confidence interval (CI) of 6.3 to 10.7%. Based on the age, children aged 13 to 59 months had the highest prevalence of hypoglycaemia (11.0%) with 99% CI of 7.4 to 16.1%. At presentation, gender, parents' occupations, parents' education levels, and socio-economic classes were not associated with hypoglycaemia. The case fatality rate for hypoglycaemia was 16.3% (8/49), which
was higher than children without hypoglycaemia (4.1%; 20/482), $p<0.05$.

Conclusion: This study shows that among the SDH evaluated in this study, only children aged 13–59 months were associated with hypoglycaemia. In addition, the presence of hypoglycaemia increased the odds of death by 4. 5.

PAN-GME-060

Impact of Training on Human Papilloma Virus Immunization-Related Activities of Immunization Champions in Nigeria

Sadoh AE, Ekure E, Duru C, Ughasoro M, Tahir Y, Edoama F, Aliu R, Farouk Z, Balogun F, Okpokowuruk F, Okpala S, Thacker N and PAN/IPA immunization champion project

Introduction: The deployment of HPV vaccine has been hampered by vaccine hesitancy occasioned by unfounded concerns about its safety and potential side effects. PAN/IPA trained immunization champions (IC) who would be resource persons for providing correct and accurate information on HPV and its vaccination while also advocating for vaccines in general.

Aim: To describe the impact of training on the HPV immunization related activities of Immunization champions.

Methods: ICs were recruited from the 36 states and FCT. They were trained in national and regional workshops. Prior to the workshops each IC filled a pre-workshop assessment form. They also filled a post-workshop assessment form 6-8 months after the workshops.

Results: Three hundred and twenty-six ICs were trained, of which 268 (82.2%) and 260 (79.8%) completed the pre-workshop and post- workshop assessment forms respectively. Majority of the ICs were health care workers. One hundred and seventy-nine (66.8%) had ever recommended the HPV pre-workshop and this significantly increased to 260 (100%) post-workshop ($p<0.0001$). Prior to the workshops, 206 (76.9%) had been asked about the utility of HPV vaccine and this significantly increased to 251(96.5%) post-workshop ($p<0.0001$). The number of ICs who had never responded to a negative vaccine sentiment reduced from 55 (20.5%) to 16 (6.2%) ($p<0.0001$) while the frequency of making a vaccine-related post increased significantly from 14.9% to 33.1% weekly ($p<0.001$). More ICs rated themselves more competent to handle vaccine hesitant parents post workshop.

Conclusion: Training of ICs is an effective intervention in improving the number of persons who provide accurate and reliable information on vaccine related topics, thus helping in combatting vaccine hesitancy occasioned by misinformation.

PAN-GME-061

Transforming Adolescent Health and Education in Africa: Pathways to Achieving the Sustainable Development Goals

Balogun FM, Orimadegun AE, Adediran KI, Maniragba F.

Introduction: Adolescents are vulnerable and constitute approximately a third of Africa's population. Their well-being is pivotal to the continents' future prosperity. Therefore, it is important to pay attention to their needs for Africa to achieve the sustainable development goals (SDG).

Aim: To determine the strategies in place for adolescent health (SDG 3) and education (SDG 4) with focus on the achievement of sustainable development in Africa, and the barriers to adolescents' access to health and education services.

Methods: This was a narrative literature review where relevant national policies and literature from Egypt, Ethiopia, South Africa, Nigeria and Democratic Republic of Congo (DRC) were critically reviewed, and their content analysed to develop the relevant themes.

Results: All the countries had policies for adolescent education and health except Egypt and DRC which did not have adolescent health policy. There was a lot of focus on adolescent sexual and reproductive health service provision which were mostly donor driven. However, the implementation of both adolescent education and health policies was poor. The main barriers to adolescents' access to education and health services were poor policy implementation, socioeconomic and cultural restrictions. Effective strategies like deployment of digital technology and integration of health and education services improved the achievement of SDG in some of these countries.

Conclusion: Adolescent education and health policies remain poorly implemented in Africa because of the identified barriers. Decisive steps are required to address these barriers, while learning from the already effective strategies across the countries.

PAN-GME-062

Clinical and Sociodemographic Profile of the 1st 1000 Post-Neonatal Medical Admissions in Paediatrics, Federal Teaching Hospital Gombe (January to October 2024)

Isaac WE, Chiroma TH, Adamu A, Useni RE, Daniel FG.

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Introduction/Aim: Clinico-socio-demographic characteristics of children are essential in providing valuable insights into their health, developmental outcomes, and overall well-being. This study aimed to determine these factors.

Methods: Data from clinical notes and Questionnaires administered to parents/caregivers of all admitted children from January to October were analysed.

Results: Males constituted 59.3% (593/1000) while 61.6% (616/1000) were under-five and 22.5% (225/1000) were adolescents; 91.5% (915/1000) resided in Gombe, 62.2% (622/1000) were self-referred while 29.5% (295/1000) had written referrals. Mothers accompanied 80.1% (801/1000) and 58% (580/1000) presented with fever. Almost all (97.1%; 971/1000) children were born via spontaneous vaginal delivery (SVD) and 87.1% (871/1000) were fully vaccinated. A total of 40.6% (406/1000) were undernourished with MUAC <13.5cm, 20.3% (203/1000) had severe acute malnutrition with MUAC <11.5cm. Socioeconomic distribution showed that 119/537 belonged to the middle socioeconomic class (SEC) and 180/402 to the lower SEC with a ratio of 1: 1.1. Overall, 89.4% (894/1000) were from married homes, with 40.2% (402/1000) from low socioeconomic backgrounds. The mortality rate was higher among children from low socioeconomic backgrounds (7.7%; 31/402) compared to 3% (16/537) from middle socioeconomic backgrounds, ($p = 0.003$). Similarly, 19.5% (195/1000) had mothers with no formal education, 62.6% (626/1000) had secondary education and higher. A third (32.4%;

324/1000) were from polygamous homes and 57.5% (575/1000) from households with $\geq$ 4 children. Of the 5.1% (51/1000) children that died, the majority 68.6% (35/51) were under-five and 27.4% (14/51) were adolescents.

Conclusion: Undernutrition remains a major concern, with fever being the most common reason for presentation.

PAN-GME-063

Relationship Between Dietary Pattern, Nutritional Status and Atherogenic Factor Indices In Pregnant Women Attending Barau Dikko Teaching Hospital Kaduna State

Sunday AD, Ameh DA.

Introduction: Malnutrition remains one of the major problems confronting pregnant and lactating mothers in sub-Saharan Africa (SSA). Micronutrient deficiencies, particularly lack of vitamin A, iron and iodine have severe adverse effect on women and children and contribute to some of the highest rates of child mortality in the world.

Aim: Dietary pattern of pregnant women attending Barau Dikko Teaching Hospital, Kaduna, their nutritional status, micronutrient status and atherogenic factors indices were assessed.

Methods: Barau Dikko Teaching Hospital was purposively selected because of its high level of attendance by pregnant women. One hundred and eighty pregnant women were involved in the research. Food Frequency Questionnaire (FFQ) was used to assess food intake, MUAC was used to asses nutritional status, serum zinc and iron were assayed using atomic absorption spectrophotometry (AAS),

vitamin A was assayed spectrophotometrically and lipid profile and serum proteins were assayed using test kits.

Results: Cereals were the most commonly consumed (34.2%), followed by meat and fish (30.7%). Overall, 78% of the pregnant women had a normal serum iron while 22% had below normal (<10.74 µmol/L) though iron supplementation was given.

Conclusion: Severe acute malnutrition mainly occurred in the third trimester, at a value of 20% unlike first trimester which was 2% and second trimester which was 4%. Also 26% of the pregnant women are susceptible to cardiovascular diseases. Higher percentage of malnutrition occurred in the third trimester when the foetus is drawing a lot of nutrients from the mother. Dietary pattern of the pregnant women also expose them to high risk atherogenic indices.

PAN-GME-064

Bridging the Gap: An Assessment of WASH Inequalities in Public and Private Primary Schools in Nnewi Area

Onubogu CU, Anugoh VN.

Introduction: Adequate Water, Sanitation, and Hygiene (WASH) facilities are essential for promoting optimal health and learning in schools.

Aim: To assess disparities in WASH facilities between public and private primary schools in Nnewi and Ukpor and to identify gaps and inform targeted interventions.

Methods: A cross-sectional study was conducted among 879 public and 683 private school pupils. Data were collected using an interviewer-administered semi-structured questionnaire.

Results: The male-to-female ratio was approximately 1:1, with no significant differences in sex or class distribution between the school types. Public school pupils were older (9.3 ± 2.03 years versus. 8.6 ± 1.78 years, p<0.001) and predominantly from lower socioeconomic backgrounds (70.9% versus 18.4%, p<0.001). Handwashing basins were available to 90.2% of public and 100% of private school pupils, but only 27.2% of public school pupils had water in their classrooms compared to 95.6% in private schools (p<0.001). Soap availability was also significantly lower in public schools (13.9% versus 89.0%, p<0.001). Ventilated improved pit latrines were more commonly used in public schools (53.6%), with 37.9% of pupils also using nearby bushes, while private school pupils exclusively used water cisterns. Broken floors were more prevalent in the classrooms of public school pupils (64.3% versus 0%), and 94.5% of public-school pupils rated their schools as having fair or poor general cleanliness compared to 19.6% in private schools. Superficial fungal infections were more frequent among public school pupils (39.9% versus 14.6%, p<0.001).

Conclusion: Significant disparities exist in WASH infrastructure between studied public and private schools. Targeted investments to improve WASH facilities in public schools are urgently needed to enhance hygiene, health and educational outcomes.

PAN-GME-065

Stillbirth in a Nigerian Tertiary Hospital - Burden and Trends During the Period 2008 to 2022

Isaac WE, Jalo I, Raymond MP, Adeniji Y, Musa A, Adamu A, Chiroma T, Daniel FG, Useni RE.

Introduction: Nigeria has the second highest burden of stillbirth rate globally at 42.9 per 1000 births. There has been a reported increase in stillbirth between 2000 to 2019.

Aim: To determine the burden and trend of stillbirths in Federal Teaching Hospital Gombe during the period.

Methods: This was a retrospective study from January 2008 to December 2022 using ICD -10 Classification. The data retrieved and analysed included live and stillbirths, age of mothers, month and year.

Results: There were 33,506 total births and 1,759 stillbirths with a cumulative SBR of 5.2%. Stillbirth rate was highest at 110/1087 (10.1%) and lowest at 439/10,081 (4.4%) in women >40years and 25-29 years respectively. Those aged 15-19 years had 204/2659 (7.7%); 35-39 years 237/3951 (6%); 30-34 years 392/7316 (5.4%) and 20-24 years 377/8412 (4.5%) (p = 0.001). Birth rate was least in women 40 years and above at 3.6% (1,197/33,506); highest in 25-29 years 31.4% (10,520/33,506). Distribution were as follows: 20-24 years (8,789/33, 506; 26.2%); 30-34 years (7,708/33,506; 23%), 35-39 years (4188/33,506; 12.5%) and 2,863/33,506 (8.5%) for 15-19 years. (p = 0.001). The year 2010 recorded the highest still birth rate in this survey at 18.2% in women >40. Still birth showed a steady decline over the period of study, from 2008 to 2012 – (6.3%; 655/10,444), 2013 to 2017 (5.6%; 554/9,966) and 4.2% (550/13,096) between 2018 and 2022.

Conclusion: Women >40 years have higher

stillbirth rates despite having lower birth rates.

PAN-GME-066

Health Care Workers, Immunization and Social Media: What Is The Nexus In Nigeria?

Sadoh AE, Ekure E, Duru C, Ughasoro M, Tahir Y, Edoama F, Aliu R, Farouk Z, Balogun F, Okpokowuruk F, Okpala S, Thacker N and PAN/IPA Immunization Champions Project.

Introduction: Social media is a major tool for disseminating rumours and misinformation which contribute to vaccine hesitancy. Health care workers are a veritable source of health information for many caregivers. It is thus important that they get into the social media space and provide correct information to caregivers and the general public.

Aim: To report the social media experience of prospective participants being trained as immunization champions.

Methods: Three hundred and twenty-six participants were recruited to be trained as immunization champions. Prior to the trainings, participants were asked to complete a pre-workshop assessment form to provide information on their age, gender, years of practice (for HCW) experiences with vaccine hesitancy on social media and immunization related activities on social media.

Results: Only 268 filled the pre-workshop assessment form giving a response rate of 82.2%. There were 174 females and 92 males. Majority of the participants were paediatricians and nurses. Most (250; 93.3%) had encountered vaccine hesitant parents. More than half, (176; 65.7%) had read or heard about negative vaccine sentiments. Almost all were on social media. With regard to posting messages, 102 (38.1%) had never posted any vaccine-related messages. Vaccine-related messages were posted monthly by 110 (69.2%) and weekly by 40 (25.2%). Majority (208; 77.6%) had responded to negative vaccine related post and this was mostly to selected posts.

Conclusion: Health care workers immunization activities on social media are inadequate. Strategies to encourage them to be more active in providing correct information on vaccines and responding to misinformation on the social media are needed.

PAN-GME-067

The State of School Health Services of the School Health Programme in Nigeria: A Position Paper by the Paediatric Association of Nigeria (PAN) Sub-Committee on School Health Programme

Ughasoro MD, Jiya FB.

This position paper summarizes the current understanding of the School Health Services (SHS) component of the School Health Programme (SHP) in Nigeria considering the Nationwide Situation Analysis (SITAN) Survey conducted, existing literature, and interactive sessions with relevant stakeholders on SHP. This article on SHS complements and is intended to integrate with parallel position papers on other components of the School Health Programme: Healthful school environment, School feeding services, Skilled based health education, and School home and community relationship aspects of SHP in Nigeria. Challenges and solutions related to pre-entry medical screening, routine health screening/examinations, immunization, school health records, sick bay, first aid and referral services were all reviewed. Gaps in our understanding of SHS in Nigeria and avenues for further research are also reviewed. Highlights include mandatory review of the National School Health Policy of 2006, training of staff and students on attitudinal change to become advocates for health in both the schools and communities, Linkage of schools with healthcare providers especially paediatricians and nurses in a hub and spoke model and development of clear performance -monitoring indicators for SHS. Gaps in our understanding of SHS in Nigeria and avenues for further research are also reviewed.

PAN-GME-068

Collaborative Stakeholder Engagement in Guideline Development: A Case Study from the Global Evidence Local Action Project in Nigeria

Esu E, Chibuzor M, Arikpo D, Aquaisua E, Oduwole O, Udoh E, Odey F, Akhigbe-Ikechukwu H, Ayoola O, Oyo-Ita A, Effa E, Meremikwu M.

Introduction: Child healthcare decisions should rely on evidence-informed guidelines developed systematically with identified priorities. The GELA project aims to enhance the use of evidence for children and newborns by strengthening the capacity of researchers and decision-makers in South Africa, Malawi, and Nigeria to create locally relevant guidelines that consider contextual factors.

Aim: To describe the processes and outcomes of the stakeholder engagement approach used in Nigeria during guideline development by the GELA Project.

Method: In Nigeria, the process involved five key steps:

Identification of Key Stakeholders: Conducting a

stakeholder analysis using a power influence grid.
collaborative selection and establishment of Groups: Forming a 14-member national Steering Group and a 13-member multisectoral Guideline Development Group (GDG) representing government, academia, lay persons, WHO, UNICEF, professional groups and non-governmental organisations
Capacity Needs Assessment: Tailoring the Community of Practice (CoP) to meet members' needs.
Establishing Virtual CoP: Conducting quarterly Microsoft Teams meetings on topics selected by CoP members based on their needs and ongoing interactions via WhatsApp.
Enhancing Relationships with SG and GDG: Facilitating connections through virtual meetings, workshops, and phone calls.
Results: Nigerian GDG members showed higher engagement levels compared to other partner countries due to effective stakeholder analysis and support from child health professionals. Previous collaborations in evidence co-production likely contributed as well.
Conclusion: The interactions leading to guideline development fostered strong stakeholder participation, which is anticipated to improve health decisions for newborns and children, ultimately impacting under-five mortality rates in sub-Saharan Africa.

PAN-GME-069

Prevalence and Pattern of Depression in HIV-Infected Adolescents at the HIV Clinic of the University of Nigeria Teaching Hospital, Enugu

Udemba CE, Iloh KK, Ojinnaka NC, Uwaezuoke SN, Okpala SC

Introduction: Due to expanded access to antiretroviral drugs, children infected with the Human Immunodeficiency Virus (HIV) are now growing into adolescence. Consequently, HIV is now evolving into a chronic illness among adolescents and studies have documented depression associated with chronic illness.
Aims: To determine the prevalence and pattern of depression in HIV-infected adolescents, and the relationship between the disease severity and depression.
Methods: Comparative cross-sectional study conducted at the Paediatric HIV Clinic and Children Outpatient Clinic of the University of Nigeria Teaching Hospital for six months. HIV-positive adolescents were recruited as subjects and matched for age and gender with the controls. The Center for Epidemiologic Studies Depression Scale for Children was used to assess depressive illness in adolescents.
Results: A total of 120 HIV-infected adolescents were enrolled, out of which 52.5% were females, and the majority of them (42.5%) belonged to the upper socio-economic class. The prevalence of depression (59.2%) was significantly higher in subjects compared to the controls (44.2%). Depressive symptoms were found more in male subjects than females (63.2% vs. 55.6%) but without statistical significance. The difference in the prevalence of depressive symptoms across early, mid, and late adolescence was also not statistically significant. There was no significant influence of age, gender, and social class on depression. No significant association between disease severity and depression.
Conclusion: There is a high prevalence of depression among HIV-infected adolescents at the University of Nigeria Teaching Hospital.

PAN-GME-070

Experience with Intra-Lesional MMR Vaccine in the Treatment of Anogenital Warts in Children: Report of Three Cases

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Introduction: Anogenital warts, caused by the human papillomavirus, is sexually transmitted (horizontally, vertically or by self-inoculation) and it imposes significant physical and psychosocial burden on affected children and their parents. Treatment options may carry high complication and recurrence rates. Immunotherapy by intralesional injection of Measles-Mumps-Rubella vaccine (MMR) has been shown to be a promising treatment modality which targets complete viral clearance, lesional resolution and reduced recurrence. In view of scarce Nigerian reports, we report our preliminary experience with this approach.
Case 1: RA, a 20-month old girl, presents with 1-month history of painful, tender, erythematous ano-genital cauliflower-like masses which persisted and became more painful despite treatment with topical podophylline. No evidence of sexual abuse. Intralesional injection with a dose of 0.5ml of reconstituted MMR was followed by complete resolution.
Case 2: AG, a 2-year old boy, was diagnosed with AGW after presenting with 8-month history of

multiple skin-coloured verrucous papules coalescing into plaques over the perianal and anal orifice. Lesions completely resolved following four doses of 0.5mls of MMR.

Case 3: AM, a 3-year old girl, presented with a 2-year history of multiple skin-coloured verrucous papules coalescing into plaques over the perianal orifice despite prior treatment with topical podophylline. Despite six doses of 0.5mls of intralesional MMR, there was no resolution of the lesions.

Conclusion: Intralesional MMR resulted in complete resolution of AGW in two of three children treated, suggesting it is a safer, less painless option to podophylline or surgery. However, further observational and interventional studies are required to better understand its potential impact/limitation.

POSTER PRESENTATIONS

PAN-GME- 001P

Isolated Pulmonary Valve Infective Endocarditis in a Nigerian Child

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Introduction: Infective endocarditis (IE) is a fatal condition with high mortality and morbidity particularly in the paediatric populations. IE generally involves the heart valves in the descending frequency of mitral, aortic, tricuspid, and pulmonary valves. Right-sided IE frequently involves the tricuspid valve than the pulmonary valve. Isolated pulmonary valve infective endocarditis (PVIE) is a rare manifestation of IE, occurring in 1-2% of cases. This case report presents a rare occurrence of isolated PVIE in a child without pre-existing heart disease.

Case: A 7-year-old girl presented with a six-week history of recurrent fever, weight loss, cough, dark urine, body swelling with difficulty in breathing. There was no history to suggest congenital or rheumatic heart diseases. Examination revealed high grade fever, cachexia, respiratory distress, tachycardia, elevated jugular venous pressure, displaced apex beat, grade 5/6 pansystolic murmur, tender hepatomegaly and ascites. Initial diagnosis was Severe Sepsis to exclude Endomyocardial fibrosis and Disseminated Tuberculosis. Urgent echocardiography revealed isolated myxomatous vegetation on the pulmonary valve, dilated right cardiac chambers, pulmonary hypertension and blood culture yielded *Pseudomonas* aeruginosa. The child was managed with antibiotics, anti-heart failure regimen, anti-platelet, and supportive therapies with progressive improvement. She was discharged after five weeks on admission with weekly follow-up; she had a relapse at the third visit and was planned for re-admission but this was declined due to financial constraints, we were informed of her demise thereafter.

Conclusion: Isolated PVIE though rare, can occur in the paediatric population. High index of suspicion, early diagnosis via echocardiography with prompt and adequate treatment are essential for good outcome of such cases.

PAN-GME- 002P

Predictors of Hypoglycaemia Among Children Admitted into the Emergency Paediatric Unit of the University of Maiduguri Teaching Hospital, Maiduguri, Nigeria

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Introduction: Hypoglycaemia is a medical emergency, unless promptly identified and treated, it can lead to deleterious consequences with risk of long-term neurologic sequelae or death.

Aim: To determine the predictors of hypoglycaemia among children admitted into the Emergency Paediatric Unit (EPU), University of Maiduguri Teaching Hospital (UMTH) Maiduguri.

Methods: This was a cross-sectional study conducted between February and September 2020. Blood glucose, in addition to other relevant laboratory investigations, was measured for each patient at the time of admission into EPU using point of care test, glucometer (ACCU_CHEK and strips).

Results: Of the 340 children that were recruited into the study, 54 patients had hypoglycaemia (< 2.2 mmol/L), giving a prevalence of 15.9%. Thirty-six (66.7%) children with hypoglycaemia were under the age of 5 years, (OR = 6.218 [1.077-35.912], p = 0.041) and 26 (48.1%) were severely underweight (OR = 3.692 [1.266-10.971], p = 0.017). Duration of at least 16 hours since the last meal, weakness, and coma at presentation, all independently predicted hypoglycaemia (OR = 5.696 [1.768-18.352], 6.556 [1.730-24.850], 9.479 [3.092-29.059], p = 0.004, 0.006 and <0.001) respectively. Severe malaria was the only diagnosis independently related to hypoglycaemia, (OR = 2.720 [0.554-13.365], p= 0.021).

Conclusion: Hypoglycaemia is a common occurrence among children admitted into EPU. Age

under five years, severe underweight, coma, weakness, severe malaria and prolonged fasting are independent predictors of hypoglycaemia. Routine blood glucose monitoring of children admitted into the EPU is recommended but those at a higher risk should be prioritized in the phase of limited test strip.

PAN-GME- 003P

NSAID-Induced Severe Upper Gastrointestinal Bleeding in an Infant: A Case Report

Evinson TD, Ogigbah EP, Diriyai GB, Akinbami FO.

Introduction: Upper gastrointestinal bleeding (UGIB) in children is a medical emergency that poses a challenge to the paediatrician. Severe upper gastrointestinal bleeding following acute use of Nonsteroidal anti-inflammatory drugs (NSAIDs) are rare but can be life threatening.

Case: We report an 8-month-old male who presented with fever of three days duration and vomiting of blood three hours prior to hospital presentation. He was given NSAIDs (ibuprofen) procured from a chemist shop by the mother for the treatment of the febrile illness and had received three doses prior to presentation. He subsequently had massive haematochezia; passing copious blood per rectum, ten times a day and estimated to be 1500mL. This led to a packed cell volume drop exceeding 10% in less than six hours alongside the development of a haemic murmur. Upper gastrointestinal endoscopy showed massive duodenal ulcers with multiple vessels oozing blood. He was placed on nil per mouth, had multiple blood transfusions (seven sessions) over 48 hours while receiving omeprazole, tranexamic acid, and antibiotics. He had multiple endoscopic haemostasis done using a cellulose oxide haemostatic powder spray. Following these interventions, he recovered and was transitioned back to oral diet within the next 72 hours and was subsequently discharged. This case illustrates the potential for severe upper gastrointestinal bleeding with the use of NSAIDs in infants. Caregivers should be educated routinely on the dangers of self- medications and indiscriminate use of over-the-counter medications.

Conclusion: Severe UGIB following acute use of Nonsteroidal anti-inflammatory drugs (NSAIDs) are rare and can be life threatening.

PAN-GME- 004P

Failure To Thrive in a Female Toddler with Ectodermal Dysplasia: A Case Report

Garba NA, Muhammad A, Hamza A, Oyedokun A.

Introduction and aims: Ectodermal dysplasia is an inherited disorder that is defined by primary defect in the development of two or more tissues derived from the embryonic ectoderm.

Aim: To describe a case of ectodermal dysplasia in a female toddler with failure to thrive seen at the Federal Medical Centre Nguru Yobe State.

Case: A case of 24-month-old female toddler who presented with failure to gain weight adequately since birth, recurrent fever, diarrhoea and vomiting for three months. There was suboptimal nutrition and had delayed motor milestone. She was a product of term pregnancy; delivery occurred at home unsupervised. She cried immediately after birth. On physical examination, she was pale, not cyanosed but small for age and not dehydrated. She weighed 3.4kg; mid-upper-arm circumference, occipito-frontal circumference and body length were 9cm, 45cm and 65cm respectively. There was dry, thick scaly skin with dysplastic nails as well as short metatarsals and metacarpals but no joint abnormalities. There was no tooth eruption but the respiratory and cardiovascular systems were normal. She was managed for ectodermal dysplasia with therapeutic foods, antibiotics and zinc.

Conclusion: This report creates awareness about the condition and highlights some challenges with the multidisciplinary care of ectodermal dysplasia.

PAN-GME- 005P

Enhancing Sickle Cell Disease Education for Medical Students: A Needs Assessment

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Introduction: Sickle cell disease (SCD) is a significant health problem in Nigeria, with high morbidity and mortality rates. Medical education plays a crucial role in preparing future physicians to manage SCD effectively.

Aim: To evaluate clinical knowledge, experiences, and educational needs of fifth-year medical students to inform interventions aimed at improving SCD education.

Methods: A mixed-method, cross-sectional study was conducted among 68 fifth-year medical students at the Rivers State University Teaching Hospital (RSUTH) who had completed paediatric clinical rotations. Data collection involved structured questionnaires and follow-up interviews with subsets of students. Quantitative data were analysed using descriptive statistics, while qualitative

responses underwent thematic analysis.

Results: Three-quarters of the students demonstrated good theoretical knowledge of SCD. Clinical exposure was highest for vaso-occlusive crises (82.4%), followed by acute chest syndrome (35.3%), and hyperhaemolysis (32.4%). Rare complications like priapism and parvovirus infection were seen by only 2.9% of students while 89% reported low confidence in managing SCD complications. Confidence was moderate only for vaso-occlusive crises, while it was low for complications like stroke, acute chest syndrome, and splenic sequestration. Overall, 94.1% believed that video-assisted learning and spending more time in the haematology unit could bridge knowledge gaps; 95.6% expressed willingness to use video-assisted learning, while other suggestions included increased ward exposure (77.9%) and learning directly from experts (63.2%).

Conclusion: The study highlighted significant gaps in students' clinical exposure and confidence in managing SCD. Educational interventions such as video-assisted learning, expert-led teaching, and increased clinical exposure are needed to equip students with the skills required for SCD management in real-world settings.

PAN-GME- 006P

Haemoglobin Genotype Pattern of Neonates Using the Gazelle Device at a Private Health Facility in Abuja, Nigeria

Stephen AS, Suleiman AO, Lawson JO, Joe-Alago O, Misheal I.

Introduction: Sickle cell disease (SCD), the most prevalent inherited blood disorder globally, represents a significant health burden in Nigeria. Early detection of SCD is essential for effective management, as it helps mitigate complications. Newborn screening is recommended for early diagnosis; however, conventional diagnostic methods are often complex, time-consuming, and costly. A more efficient point-of-care rapid test could significantly improve early screening and management.

Aim: To assess the haemoglobin (Hb) genotype patterns of neonates delivered at Zankli Medical Centre, Utako, Abuja, using the Gazelle device, a cellulose acetate-based microchip electrophoresis system.

Methods: This descriptive cross-sectional study, conducted at Zankli Medical Centre, Utako, Abuja, between January 2021 and October 2024, evaluated the Hb genotype of 334 neonates. The Gazelle, a point-of-care rapid test device, was used for screening.

Conclusion: The use of the Gazelle device for newborn screening offers a practical and efficient approach to identifying haemoglobin genotypes in neonates. The results highlight the utility of this rapid test in a resource-limited setting, providing timely and accurate genotype information. Given Nigeria's burden of sickle cell disease, incorporating such point-of-care screening methods could significantly improve early diagnosis and outcomes for affected children, contributing to better public health management strategies.

PAN-GME- 007P

Haematologic Disorders in the Newborn Period: A Retrospective Study in a Tertiary Hospital in Southern Nigeria

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Introduction: Haematologic disorders in neonates are associated with significant morbidity and mortality, particularly in resource-limited settings. Despite their impact, there is limited data on the prevalence and outcomes of these disorders in many regions, including sub-Saharan Africa.

Aim: To determine the prevalence, types, and clinical outcomes of neonatal haematologic disorders.

Methods: A retrospective review of medical records was conducted from July 2021 to April 2024 at the Special Care Baby Unit of Rivers State University Teaching Hospital.

Results: There were 1154 neonatal admissions during the time under review. The prevalence of haematologic disorders was 2.4% (28 neonates). The m ale-to-female ratio was 1.5:1 with 17 males (60.7%) and 11 females (39.3%). Anaemia was the most prevalent haematologic disorder, (75%), followed by haemolytic disease of the newborn (HDN) (21.4%), d isseminated intravascular coagulation (DIC) and Vitamin K deficiency (7.1% each). Twenty-one (75%) neonates had haematologic conditions in addition to other illnesses. Regarding outcomes, 18 (64.3%) were discharged, 4 (14.3%) died, and 6 (21.4%) left against medical advice. The duration of hospitalisation varied: 11 neonates (39.3%) stayed 8-14 days, 10 (35.7%) stayed one day, 3 (10.7%) stayed 15-21 days, and 2 (7.1%) stayed more than 29 days.

Conclusion: Haematologic disorders, particularly anaemia, were the most common bleeding abnormalities identified in neonates during the study period. Haemolytic disease of the newborn (HDN) and disseminated intravascular coagulation (DIC) were also significant contributors to neonatal morbidity. These findings emphasize the critical need for early recognition and management of haematologic disorders in neonates to improve outcomes and reduce complications.

PAN-GME- 008P

Priapism Among Sickle Cell Anaemia (SCA) Patients: A Case Series Amongst Patients in a Tertiary Hospital in Jos Plateau State

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Introduction: Priapism is a sustained painful penile erection. The age of onset is usually in adolescent. The high prevalence of sickle cell disease in our environment makes the incidence of priapism-related cases follows suite.

Aim: To highlight the occurrence of priapism among children with sickle cell disease, and the need for multidisciplinary approach in the management of the disease.

Case 1: A 12-year-old boy with SCA presented with 24 hours history of mildly painful sustained erection. Examination findings revealed an erect, rigid and tender penis. A diagnosis of ischaemic priapism was made and the patient was given intravenous fluids (IVF) and analgelsics. Consent for an emergency surgery was gotten within 1 hour of presentation and a Al-Ghorab shunt was done which relieved the priapism – intraoperative finding was a gush of dark blood on breeching the tunica albuginea followed by bright red blood. The patient was discharged after 8 days and is doing well.

Case 2: A 14-year-old boy with SCA presented with 30 hours history of painful sustained erection. Examination findings revealed an erect, woody hard and tender penile gland. A diagnosis of ischaemic priapism was made and patient had Al-Ghorab shunt after informed consent was obtained. Intra-operative findings revealed dark blood from the bulbocavernosus. The patient had an Exchange Blood Transfusion and was continued on his analgesics. He was discharged four days after the surgery. Since discharge, patient has had seven follow-up clinic attendances and he has remained symptom-free with no recurrence.

Case 3: A 14-year-old boy with SCA presented with 24 hours history of painful sustained erection. Examination findings revealed a hard, erect and tender penis. A diagnosis of ischemic priapism was made. Two units of blood was grouped and cross matched. Patient had an Al-Ghorab shunt and intra-operative findings revealed a hard-erect penis and dark blood. Patient has had five follow up visits and there has been no recurrence of symptom.

Conclusion: Priapism occurs among adolescent children with sickle cell disease. There is the need to treat it as an emergency with a multidisciplinary approach to reduce the morbidity.

PAN-GME- 009P

Knowledge of HPV and Willingness to Accept HPV Vaccine Among HCW in a Tertiary Health Facility in Abakaliki, Ebonyi State

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Introduction: Human Papillomavirus (HPV) is a leading cause of cervical cancer and other malignancies. Despite an effective vaccine, uptake remains low in regions like Nigeria. Healthcare workers (HCWs) are key in promoting vaccination, and their knowledge and attitudes influence vaccine acceptance.

Aim: To assess HPV knowledge and vaccine acceptance among HCWs at a tertiary health facility in Abakaliki, Ebonyi State, Nigeria, aiming to identify knowledge gaps and barriers to acceptance.

Methods: A cross-sectional study was conducted among HCWs at Alex Ekwueme Federal University Teaching Hospital, Abakaliki. A stratified random sample of 242 participants, including doctors, nurses, and laboratory scientists, completed a structured questionnaire.

Results: Among the participants, 92.6% had heard of HPV, with a moderate knowledge score (mean 9.81±4.99 out of 21). Vaccine acceptability had a mean score of 2.39±3.80 out of 8. While 72.7% agreed on the necessity of vaccinating girls, only 50.0% supported vaccinating boys. The main reasons for vaccination were protection against genital cancer (67.8%) and safeguarding future sexual partners (40.9%). Vaccine hesitancy was primarily due to fear of adverse effects (14.9%) and insufficient information (7.4%). A positive correlation ($r = 0.475$, $p = 0.000$) was found between HPV knowledge and vaccine acceptance.

Conclusion: HCWs in Abakaliki show moderate

knowledge of HPV and a willingness to accept the vaccine, especially with medical recommendation. However, concerns about vaccine safety and lack of information are barriers. Educational interventions targeting HCWs are crucial to enhancing HPV vaccine uptake and reducing HPV-related disease burdens.

PAN-GME- 010P

Sequelae in Children with Cerebral Malaria in The Gambia

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Introduction: Cerebral malaria is a severe form of malaria caused by plasmodium falciparum. It is endemic in West Africa and South Asia. It usually occurs in children 5 years and below and results in altered consciousness and other CNS manifestations. It is a diagnosis of exclusion. EFSTH is the only tertiary referral center in Gambia.
Aim: To determine the sequelae associated with cerebral malaria and the regions from where the referral were.
Methods: Using information from the cerebral malaria study proforma the regions referral, evidence of malaria parasitaemia, and response to treatment data was abstracted.
Results: A total of 25 patients were studied. The male-to-female ratio was 1.2:1 with a mean age is 8.27 years. Referrals were mainly from WRC 14, and KMC 8, and 3 from other facilities. Malaria parasite rapid diagnostic test (MRDT) was positive in 12 patients (46%) and blood film was positive in 10 patients (36%) and 2 patients tested positive by both MRDT and blood film. Malaria was treated with IV artesunate in 88% of patients while one patient received IV quinine. Of the 26 patients, 18 had no sequalae of cerebral malaria, one had cortical blindness, two had cerebrovascular accident, and facial nerve palsy (UMNL). Two patients were lost to follow up.
Conclusion: Targeted intervention should be done in the West Coast region to break malaria transmission in Gambia which will also prevent development of severe forms of malaria such as cerebral malaria

PAN-GME- 011P

Acceptance of Human Papilloma Virus Vaccine Among Health Care Workers in Ilorin West Local Government Area of Kwara State

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Introduction: Human Papilloma Virus (HPV) is the most common pathogen in all female cancers. The Nigerian Government has commenced free HPV vaccination for girls aged 9 years in all local governments, and the vaccine has been added to the EPI schedule. The vaccine is to be administered by nurses and community health officers and extension workers in Primary Healthcare settings.
Aim: To assess the acceptance of HPV vaccine among health-care workers in Ilorin West local government area of Kwara State as they are the health educators and those who administer the vaccine.
Methods: A descriptive, cross-sectional design was used while random sampling was used to select 50 health workers as respondents. The instrument used was a self-developed questionnaire which consisted of 24 items.
Results: Overall, 94% of the respondents believed that cervical cancer can be prevented with the vaccine. Sixty-eight per cent agreed that they were comfortable to receive doses of the vaccine, while 50% strongly agreed that they would advise family and friends to accept the vaccine. However, respondents agreed (78%) that there was insufficient information about the HPV vaccine.
Conclusion: Though the healthcare workers mostly accept the HPV vaccine, there is still some level of vaccine hesitancy among them. Healthcare workers in the community should receive regular continuing education on new vaccines added to the EPI schedule for full acceptance before commencing immunization campaigns.

PAN-GME- 012P

Mothers' Awareness and Perceptions of the Causes of Kidney Diseases in Children in Ogbomoso South Local Government Area, Oyo State

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Introduction: Kidney diseases in children present significant health challenges influenced by various factors, including maternal awareness and perceptions. Understanding these factors is crucial for developing effective interventions and improving health outcomes.
Aim: To assess mothers' awareness and perceptions of the causes of kidney diseases in children in Ogbomoso South Local Government Area, Oyo State.

Methods: A cross-sectional survey was conducted with a sample of 181 mothers. Data were collected through structured questionnaires and analyzed using statistical methods including mean scores, and percentages.

Results: The socio-demographic characteristics of the respondents showed that 40% were aged 30-39 years, 66.1% had secondary education. The average mean score for mothers' awareness of the causes of kidney diseases was 3.60 (SD = 1.27), indicating a moderate level of awareness. The sources of information vary, with health professionals being the most significant source (51.9%). Overall, 42% agreed, and 23.8% strongly agreed that certain medications can cause kidney disease, while 47.5% agreed, and 23.8% strongly agreed that kidney diseases can be due to poorly controlled diabetes and hypertension. Also, 18.2% disagreed, and 15.5% strongly disagreed that kidney disease is due to spiritual causes or punishment from God.

Conclusion: The study findings indicate that mothers exhibit a moderate level of awareness and relatively high perception regarding kidney disease causes, but knowledge gaps are influenced by cultural beliefs. It is recommended that health workers develop targeted culturally sensitive educational programs to improve maternal awareness and perceptions of kidney disease causes.

PAN-GME- 013P

Knowledge and Practice of Family-Centered Care Among Nurses in Paediatric Wards in University of Ilorin Teaching Hospital, Ilorin

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Introduction: Family-centered care (FCC) is a model for health services to children and their families through partnerships that show respect to the family and children.

Aim: To assess the knowledge and practices of family-centered care among nurses in paediatric wards in University of Ilorin Teaching Hospital, Ilorin.

Methods: A descriptive survey design was used in this study and a sample size of 70 nurses was used.

Results: All the nurses were BNSc holders, 43% were registered paediatric nurses while 85.7% of respondents in the selected Paediatric units have heard about FCC. The respondents strongly agreed (41.4%) and agreed (31.4%) that a lack of paediatric trained nurses adversely affected the implementation of FCC while 29% of the respondents always allowed family to join or contribute during ward rounds. Also, 45.7% of the respondents agreed that poor communication skills between Nurses and the family was a factor influencing the implementation of practice of FCC. Only 45.7% occasionally allowed the use of family cultural or religious practice to promote the child's health. Further, 67.1% always created a welcoming and supportive environment for families in health care settings. There was a significant relationship between professional qualification and knowledge of FCC among nurses ($p<0.05$).

Conclusion: Family-centered care practices should be part of continuing nursing education for paediatric nurses/nurses working in paediatric units. Nurses should be encouraged to undergo Basic or Postgraduate paediatric nursing programmes to improve paediatric care outcomes.

PAN-GME- 014P

The Adhesive Alliance: Conspiration of Sickle Cell Anaemia and Multifocal Osteomyelitis Against the Body

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Introduction: Nigeria has the highest global prevalence of Sickle Cell Anaemia (SCA), with Kano State having the highest rate at 40.3%.1 Individuals with SCA exhibit an increased susceptibility to infections.2,3 While osteomyelitis is a severe infection that can be devastating, it might be challenging to distinguish it early from SCA vaso-occlusive crises of the bone. We report two cases of patients with known SCA who were admitted with VOC of the bone and were subsequently diagnosed with multifocal osteomyelitis. The Blood culture of one, yielded methicillin resistant *Staphylococcus aureus* (MRSA) and the other, grew *Candida albicans*.

Case 1: A 3-year-old female toddler with known Haemoglobin SS (HbSS), presented to Aminu Kano Teaching Hospital (AKTH), Kano, with body pains and fever of 10 days, and multifocal body swellings, was initially diagnosed with VOC and malaria. She was subsequently diagnosed with MRSA multifocal osteomyelitis and was successfully managed with vancomycin.

Case 2: A 19 month old boy with HbSS presented with fever, body pains and multifocal limb swelling was initially managed for VOC and malaria. He was later diagnosed with *candida* sepsis, multifocal abscesses and probable candida osteomyelitis

complicated by a tibial fracture. This was successfully treated with fluconazole.

Conclusion: These cases highlight the importance of high index of suspicion in considering bacterial and fungal osteomyelitis in children with SCA with VOC and recommend early microbial culture, imagine and targeted therapy to reduce morbidity and mortality.

PAN-GME- 015P

Spasms of Fear, Moments of Hope, the Tetanus Tightrope: Balancing Life and Death in Aminu Kano Teaching Hospital (AKTH), Nigeria.

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Introduction: Tetanus, caused by the soil-dwelling bacterium *Clostridium tetani*, remains a significant cause of mortality in low- and middle-income countries (LMICs) due to low vaccination rates and inadequate wound care practices. In 2019, the WHO estimated 34,000 tetanus-related deaths globally, affecting mainly neonates, children, and women in LMIC. This case series highlights the clinical presentation, management, and outcomes of tetanus in Aminu Kano Teaching Hospital (AKTH), Nigeria.

Aims: To sensitise clinicians about unusual cases for better and prompt recognition of childhood tetanus cases.

Methods: We retrospectively extracted patient's medical records and analysed three cases of generalised tetanus (GT) focusing on the clinical presentation, infection pathways, management strategies, and outcomes.

Results: All the three patients were treated with anti-tetanus serum, staggered oral diazepam, phenobarbitone, chlorpromazine, IV metronidazole, and supportive care.

Case 1: A 3-year-old boy who developed generalized tetanus following circumcision by a local barber, who subsequently recovered and was discharged.

Case 2: A 10-year-old boy who developed generalized tetanus following head injury and primary healthcare center scalp suture who succumbed after tachycardia and increasing pyrexia.

Case 3: A 35-day-old female with fever, focal seizures, inconsolable cry and ear discharge that was initially managed for acute bacterial meningitis and later developed tetanus spasms but subsequently recovered and was discharged.

Conclusion: Tetanus remains life-threatening but preventable in LMICs. Strengthening vaccination programs, safe wound care practices, and healthcare provider training to improve early recognition and management are critical to reducing tetanus-associated morbidity and mortality.

PAN-GME- 016P

Factors Influencing the Use of Self-Medication on Children Among Parents Attending the Outpatient Clinic of Kwara State University Teaching Hospital, Ilorin

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Introduction: Self-medication, especially in children, is a global public health concern. This practice, often driven by socio-economic and cultural factors, can lead to incorrect dosing, drug resistance, and delayed medical intervention.

Aim: To assess the factors influencing self-medication in children, focusing on parents' socio-economic status, level of education, and cultural beliefs.

Methods: This cross-sectional descriptive quantitative study involved 82 parents attending the outpatient clinic at the Kwara State University Teaching Hospital (KWASUTH). Data were collected using a self-designed questionnaire and analysed using descriptive statistics.

Results: The practice of self-medication was recorded in 41.5% of the respondents, with 29.3% doing so for minor injuries and 22.0% for fever. Cultural beliefs influenced 35% of self-medication practices, and 70% of parents with previous positive experiences repeated the practice. Almost half (47.3%) of the respondents identified economic constraints as a primary reason for self-medication, and 35% indicated that cultural norms encouraged them to use herbal or over-the-counter remedies. There is a significant relationship between socio-economic status and self-medication practices ($p<0.05$).

Conclusion: Self-medication among children is significantly influenced by socio-economic status, cultural beliefs, and parental experiences. Public health interventions that address socio-economic barriers and promote culturally sensitive healthcare information are critical in reducing the prevalence of self-medication.

PAN-GME- 017P

Impact of Household TB Contact Tracing on Detecting Childhood TB: TB-Lon 3 Project Experience.

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Introduction: Childhood tuberculosis (CTB) remains underdiagnosed and undertreated in many cases, due to nonspecific symptoms and diagnostic challenges. Household contact tracing is a targeted intervention that holds promise for early detection and management of CTB, especially in high- burden settings like Nigeria which ranked the fifth in CTB burden globally.

Aim: To assess the impact of household TB contact tracing on the detection and management of CTB cases in Southwest Nigeria where TB-LON 3 project is being implemented (Lagos, Ogun, Osun and Oyo).

Methods: A retrospective analysis of TB contact tracing/investigation activities conducted between April 2020 and September 2024 in the project states. Contacts aged 0–14 years (children) were screened using WHO symptom-based screening, and further evaluated using molecular platforms like GeneXpert or clinically. Core indicators included the number of child contacts identified, screened, diagnosed, and initiated on treatment.

Results: Out of 266,007 contacts identified, 265,749 were traced and 23% (60557) were children. Among these, 19% (11,599) were presumed to have TB and underwent further evaluation for diagnosis. Overall, 745 cases of which 547 were bacteriologically confirmed and 198 clinically diagnosed were identified, contributing 9% to the total CTB cases identified in the period. Further, 96% of diagnosed children were successfully initiated on treatment.

Conclusion: TB contact tracing significantly enhances CTB case detection, allowing for early intervention and improved treatment outcomes. Policymakers should prioritize resource allocation to scale up the strategy and integrate it fully into broader TB control efforts to reduce CTB burden.

PAN-GME- 018P

Improving TB Case Identification and Notification Among Children Through Childhood TB Testing Week Strategy

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Introduction: Tuberculosis (TB) among children is associated with high morbidity and mortality. In Nigeria, there is suboptimal case identification and notification for TB in children. In 2022, this stood at 7%, and this is below the expected 12% according to the World Health Organisation (WHO). This gap necessitates the need for targeted interventions to improve TB diagnosis and care in children. Childhood TB testing week which involves awareness creation and testing of children in congregate settings like schools, orphanages, remand homes, and streets and health facilities was launched to address this.

Aim: To assess the outcome of childhood TB testing week on presumptive TB identification, diagnosis and notification among children in Nigeria.

Methods: This is a comprehensive review and analysis of program data from childhood TB testing week held from 27 to 31 May 2024 in Nigeria. Aggregated data was stratified and analysed using Microsoft Excel while chi-square was used to test significance.

Results: Of the 364,919 persons evaluated, 83.2% (303,722) were screened for TB, with a higher screening rate in children ≤14 years (86.3%) than in those ≥15 years (76.6%; $p<0.05$). The presumptive TB yield was 22% (67,489/303,722). Among the presumptive cases, 5.1% were confirmed with TB (4.1% for ≤14 years and 7.5% for ≥15 years; $p<0.05$). Of the 3,373 diagnosed cases, 3,305 (98%) were enrolled in treatment.

Conclusions: Special interventions targeting children in TB response have proven to be effective in improving TB detection and notification. There should be efforts to sustain tis achievements through more resource mobilization and relevant stakeholder engagement

PAN-GME- 019P

Hospitalised Measles Cases in Northern Nigeria: Predictors of Complications and Mortality

Ibraheem RM, Ibrahim OR, Aliu R, Bello AO, Ogunkunle TO, Abdulkareem KA, Hassan KS, Adedeji ON, Ameen-Ikoyi IB, Suleiman MB.

Introduction and Aim: Despite the availability of an effective vaccine, measles remains a significant cause of morbidity and mortality in children, particularly in low- and middle-income countries like Nigeria. The measles vaccine booster dose introduction in Nigeria in 2019 underscores the importance of understanding the factors associated with complications and mortality to guide targeted interventions.

Methods: This descriptive, cross-sectional study analysed all measles cases admitted to six tertiary hospitals in Northern Nigeria over five years

(January 2018 to December 2022).

Results: Among 468 hospitalised children with measles, 73.9% experienced complications; with pneumonia (45.3%), severe acute malnutrition (9.6%), and diarrhoea (9.2%) being the most common. The mortality rate was 15.4% (72 deaths), with pneumonia contributing to 54.2% of the deaths. Infants (adjusted odds ratio [AOR] = 3.4, 95% CI: 1.13–10.02) and females (AOR = 2.3, 95% CI: 1.31–4.02) had significantly higher odds of death. Multiple complications (AOR 11.3, 95% CI: 3.75–37.12), incomplete vaccination (AOR = 3.5, 95% CI: 1.44–8.73), and lack of vaccination (AOR = 3.6, 95% CI: 1.25–10.60) were strongly associated with increased mortality. Croup was associated with lower mortality risk (AOR = 0.10, 95% CI: 0.01–0.81).

Conclusion: Measles complications and mortality remain alarmingly high among hospitalised children in Northern Nigeria, with pneumonia, malnutrition, and vaccination gaps as key contributors. Strategies to enhance vaccination coverage and ensure early diagnosis and treatment are critical to reducing the burden of measles-related mortality.

PAN-GME- 020P

Non-Infectious Causes of Childhood Death at the Federal Teaching Hospital Gombe: A Two-Decade Review

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Introduction: Non-infections such as structural, functional and metabolic disorders contribute significantly to mortalities worldwide.

Aim: To determine the leading non-infectious primary causes of childhood death in a tertiary facility.

Methods: This is a retrospective study of children age 0-18yrs with non-infectious pathologies as primary causes of death using ICD-10 between 2000-2019. Variables retrieved and analysed included: age, sex, cause of death, duration of hospital admission, month, year and tribe using Epi-info 3.5.1.

Results: A total of 27,875 patients were admitted during the study period with 3956 deaths representing 14.2% mortality rate. Non-infectious causes accounted for 67.1% (2655/3956). Deaths from 2000-2004 contributed 9.8% (260/2655), 2005-2009 19.43% (516/2655), 2010-2014 - 36.3% (946/2655), 2015-2019 - 35.14% (933/2655). The highest mortality was from severe birth asphyxia (23.7%; 628/2655). Other included preterm low birth weight (17.7%), Congenital malformations (14%), severe acute malnutrition (7.1%), malignancies (6.7%), Rheumatic Heart disease (4.7%), RTA/injuries (4.4%), Neonatal jaundice (3.4%), kidney injury (2.6%), aspiration pneumonitis (2%) while eclampsia contributed (1.5%) and antepartum/postpartum haemorrhage contributed 0.67%. Males were mostly affected (55.9%; 351/628) in severe birth Asphyxia, 59.1 (233/372) in Congenital malformations, 58.4% in Rheumatic Heart disease, 52.9% in severe acute malnutrition. Of the malignancies leukaemias accounted for 28.09% (50/178) followed by Burkitt lymphomas (22.5%; 40/178). Further, 34.9% (219/628) and 29.94% (141/471) of severe birth asphyxia and preterm low birth weight respectively, died less than 24hours of admission while 52.1% (327/628) and 56.48% (266/471) died within 1-7 days of admission.

Conclusion: Non-Infectious pathologies are the leading cause of childhood death in FTH Gombe.

PAN-GME- 021P

Screening for Viral Hepatitis B and C in Children at the Federal Teaching Hospital Gombe: A Two-Decade Review

Isaac WE, Jalo I, Razaki A, Ebisike K, Girbo A, Raymond MP, Lukman O, Adamu A, Useni RE, Usman FA.

Introduction: Hepatitis B and C remain public health burdens. In Nigeria, Hepatitis B vaccine coverage is low; at 41% with most infections occurring in the perinatal period resulting from challenges of prevention of mother-child transmission. Effective screening is crucial for early detection, preventing transmission and timely treatment.

Aim: To determine the burden of viral hepatitis B and C in Federal Teaching Hospital Gombe.

Methods: This is a hospital-based retrospective study of viral hepatitis B and C screened in children aged 0-18 years in our facility from the years 2000 to 2019.

Results: A total of 142,371 and 27,875 children were seen in the POPD or were admitted. Of these, 3,512 children were screened for hepatitis B and C giving a screening rate of 2% (3512/169,087). Five hundred and forty-one (15.4%) tested positive for either hepatitis B, C or both. Males constituted 50.4% (1772/3512) while 13.6% (476/3512) tested

positive for HbSAg, 1.9% (65/3512) for HCV and 0.2% (6/3512) were positive for both HbSAg and HCV. Among the sexes, 15.6% (276/1772) of males screened and 8.2% of females (142/1740) were positive for HbSAg, ($p<0.001$). Of those positive for HbSAg, 18.2% (87/476) were also reactive for HbeAg; 67.8% (59/87) of these were aged 10-18years. HbSAg positivity increased with age; 0.4% (2/476) for <1yr and 73.9% (352/476) for 10-18years ($p <0.001$). HCV was also higher in ages 10-18years (75.4%; 49/65).

Conclusion: Hepatitis B and C screening rates are low and needs to be improved upon to enhance prevention and prompt treatment.

PAN-GME- 022P

Still Scourged by Diphtheria in the 21st Century: Respiratory Diphtheria Fatalities in Two Adolescents in Lafia North-Central Nigeria

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Introduction/Aim: Despite five decades of available effective vaccines in Nigeria, Diphtheria is re-emerging with outbreaks recently reported largely due to low vaccination coverage. Adolescents are now mostly affected partly due to a lack of booster doses in the current Nigerian schedule. We report two fatal cases of respiratory diphtheria in adolescents presenting six weeks apart to the Emergency Paediatrics Unit of Federal University Teaching Hospital Lafia, Nasarawa State.

Methods: The case notes of two children managed for diphtheria in the months of August and October were retrieved and analysed.

Results: The first patient was a 10-year-old unvaccinated boy who presented with fever, throat pain, noisy breathing, and facial fullness. At admission, he was febrile, had a bull's neck appearance, and had a greyish membrane in the oropharynx upon throat examination. Although diphtheria was suspected, the throat Swab culture rather yielded *Klebsiella* species. He only received IV crystalline penicillin, his symptoms significantly improved, and was discharged after four days. However, 10 days later, he represented with features of Myocarditis and died within 8 hours of admission. The second was a 13-year-old, unvaccinated girl with a 5-day history of fever, dysphagia, hoarseness (progressing to whispers), and cough. She also had a 'bull's neck' and oropharyngeal membrane upon examination. A throat swab culture confirmed *Corynebacterium diphtheriae* and she received Diphtheria Antitoxin, intravenous antibiotics, and other supportive treatments but died on the third day of admission from sepsis.

Conclusion: Respiratory diphtheria is still a scourge in our environment with especially high morbidity and mortality among adolescents. This underscores the place of early diagnosis, comprehensive management and a robust vaccination programme which should include booster doses.

PAN-GME- 023P

An Audit of Neonatal Morbidity and Mortality in Federal Medical Centre Birnin Kudu: What Is The Way Forward?

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Introduction: Neonatal morbidity and mortality still pose a serious challenge in developing countries. Low levels of obstetric care, unsupervised home deliveries, and late referrals lead to poor outcomes even in special care baby units (SCBU).

Aim: To identify the common causes of neonatal morbidity and mortality among babies admitted to the SCBU in Federal Medical Centre Birnin Kudu, Jigawa State.

Methods: The case notes of all admitted neonates from January to December 2023 were retrospectively reviewed.

Results: Two-hundred and twenty-one babies, comprising 113 boys and 108 girls were admitted during the study period. Birth asphyxia, neonatal sepsis, and jaundice were the commonest causes of admission, accounting for 40%, 32%, and 8% of total admissions. Seventy percent (154 babies) were discharged, 42 (19%) were discharged against medical advice, while 11% (24 babies) died. Neonatal tetanus had the highest case fatality rate of 80%, followed by neonatal jaundice (20%) and asphyxia (9.5%).

Conclusion: Common causes of morbidity and mortality in this centre as reported from other parts of Nigeria are identical and preventable. Ensuring adequate ANC, and supervised delivery by trained health-care personnel with adequate neonatal resuscitation skills. Strengthening neonatal tetanus elimination program, especially in Northern Nigeria where it is still prevalent. Capacity building of health workers and increasing community sensitization on the causes and preventive measures against neonatal morbidity and mortality.

PAN-GME- 024P

Navigating Complex Neonatal Jaundice: A Case Study

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Introduction: Newborn jaundice (NNJ), especially due to ABO incompatibility, is a major global health concern. Phototherapy is standard treatment, with exchange transfusions reserved for severe cases. However, in some babies, these therapies may be ineffective, requiring additional therapy. Limited access to these treatments in developing countries creates a critical gap, worsening jaundice severity.

Case: A 22-hour-old male term neonate presented with rapidly progressive severe neonatal hyperbilirubinemia (NNJ) within 15 hours of life, consistent with ABO incompatibility based on discordant maternal and infant's blood types (mother – O; baby - BRh-positive). Despite aggressive initial management with phototherapy and multiple sessions of exchange transfusion, the NNJ exhibited limited improvement. Sepsis and G6PD deficiency were considered as potential contributing factors due to the presence of fever and a positive family history of G6PD deficiency. Although confirmatory testing for G6PD deficiency was deferred due to unavailability of the diagnostic test in our setting. Due to a sibling's positive response to methylprednisolone for a similar condition, a short course of low-dose intravenous methylprednisolone (1 mg/kg/day divided into two doses) was carefully administered. This resulted in a rapid and significant improvement in the neonate's hyperbilirubinemia.

Methylprednisolone was prescribed for three days, after which it was discontinued. Following close observation for three days and confirmation of no neurological sequelae, the neonate was discharged home in stable condition.

Conclusion: Managing severe, worsening NNJ, especially with multiple aetiologies, is complex. Standard therapies may be inadequate. While promising, immunomodulatory therapies like IVIG may be limited in resource-poor settings. Methylprednisolone shows potential but lacks strong clinical evidence. Well-designed studies are essential to explore its safety and efficacy, particularly in developing countries with limited treatment options.

PAN-GME- 025P

Giant Congenital Melanocytic Nevus in a Black African Newborn: A Case Report and Review of Literature

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Introduction: Giant congenital melanocytic nevus (GCMN) is a rare congenital anomaly characterized by melanocytic proliferations larger than 20 cm in projected adult size. These lesions carry a risk of malignant transformation and pose diagnostic, cosmetic, and management challenges.

Aim: We report this case of GCMN, a rare and interesting birth discoloration defect which was observed in a 9-day old term female neonate to highlight the anxiety and challenges associated with the case management.

Case Summary: A 9-day-old term female neonate, born to a 33-year-old mother presented with generalized hyperpigmented skin involving the trunk, limbs, and satellite lesions on the face, hands, and soles. The truncal lesion, resembling a "bathing trunk," extended anteriorly to the upper abdomen and chest and posteriorly to the shoulder blades, buttocks, and thighs. Additional raised lesions on the labia majora and sacrococcygeal region were soft and non-tender. Histopathological examination confirmed congenital melanocytic nevus. Ancillary investigations were normal. The patient was managed conservatively with emollients, and a multidisciplinary team, including plastic surgeons, recommended monitoring with consideration for future cosmetic interventions.

Conclusion: This case highlights the rarity of GCMN and underscores the importance of thorough neonatal evaluation. Although the risk of malignant transformation exists, histopathological findings in this case suggest a low premalignancy risk. Early diagnosis and a multidisciplinary approach are essential for optimizing outcomes and addressing potential cosmetic and psychosocial challenges.

PAN-GME- 026P

Potter Sequence in aNewborn with its Challenges: A Case Report from North-western Nigeria

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Introduction: Potter sequence is a rare clinical condition associated with bilateral renal agenesis and pulmonary hypoplasia due to oligohydramnios. We report a case of potter sequence seen at Federal Teaching Hospital, Kebbi state.

Case: A 10-minute old term male neonate was brought into the Special Care Baby Unit on account of difficulty to initiate breathing and bluish discoloration of the body with APGAR score of 1 at one minute and 3 at five minutes. He was ventilated with bag-mask device with some improvement but oxygen saturation remained sub-optimal after 15minutes of resuscitation. He was placed on oxygen therapy. Pregnancy history of the index patient yielded no significant findings though the previous pregnancy of the mother ended as stillbirth. The marriage was consanguineous.

He had features of potter facies which include triangular face, hypertelorism, low set ears, depressed nasal bridge, upward slanting palpebral fissure, retrognathia, and soft dysplastic ears. There was bilateral peri-orbital oedema. The chest was bell-shaped. The abdominal wall muscle was lax with associated cryptorchidism. Respiratory examination revealed tachypnoea with absent breath sound on both hemithorax. He later started convulsing and lost consciousness. The infant received intravenous fluid, intravenous antibiotics and intramuscular phenobarbitone with no improvement. He did not make urine throughout the admission despite having fluid and diuretic challenge. He died at 23hours of life due to respiratory failure from the pulmonary hypoplasia. Autopsy could not be done due to cultural disapproval.

Conclusion: Potter sequence, though incompatible with life, remains a challenging clinical entity.

PAN-GME- 027P

Pattern and Outcome of Neonatal Admissions at the Special Baby Care Unit of the Federal Medical Centre, Nguru, Yobe State

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Introduction: Neonatal morbidity and mortality contributes significantly to under-five morbidity and mortality in sub-Saharan Africa accounting for about 47% of under-five mortality. Neonatal mortality is very high in Nigeria.

Aim: To determine the pattern and outcome of neonatal admissions in the special baby care units (SBCUs) of the Federal Medical Centre Nguru, (FMCN), Yobe State, in North-eastern Nigeria.

Methods: A descriptive, retrospective study of all neonates admitted over one year from January 2022 to December 2022. Information concerning age, sex, diagnosis, duration of hospital stay and outcome were extracted from patients' medical records.

Results: There were 403 neonates admitted over the 12 months period. The main causes of admission were neonatal sepsis (25.3%), prematurity (23.3%), perinatal asphyxia (21.1%), neonatal jaundice (13.6%) and congenital anomalies (6.25%). Three hundred and twelve (77.4%) of those patients managed were discharged, 14 (3.5%) were referred, 20 (5.0%) DAMA and 57 (14.1%) died.

Conclusion: Neonatal mortality is still high in our environment. There may be need for improved infection prevention and control strategies, appropriate antenatal care, close monitoring of labour and enhanced neonatal unit facilities for newborn.

PAN-GME- 028P

Prevalence, Pattern and Outcome of Congenital Anomalies at the Federal Medical Centre, Nguru, Yobe State

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Introduction: Congenital anomalies (CA) are among the leading causes of morbidity and mortality among neonates. The prevalence, pattern and outcome vary with location. Whilst exact aetiology of most CA remains unknown, some result from genetic and/or environmental factors.

Aim: To document the prevalence, pattern and outcome of congenital anomalies among hospitalized neonates.

Methods: A descriptive, retrospective study of all neonates admitted at the Special Care Baby Unit of FMCN, Nigeria, over a three years January 2018 to December 2020. Information concerning age, sex, diagnosis, and duration of hospital stay and outcome were extracted from patients' medical records.

Results: There were 106 cases of CA of the 1204 neonatal admissions, over the 36 months period giving a prevalence of 8.8%. Anomalies of the digestive system (34.9%) and Musculoskeletal system (27.4%) were the most common CA. Fifty-nine (55.7%) of the babies were discharged, 21 (19%) were referred, seven (6.6%) DAMA and 19 (18.0%) died.

Conclusion: CA is common in our environment. There may be a need for adequate antenatal evaluation and immediate careful examination of newborns to detect early cases of congenital anomalies for appropriate intervention. There is also a need for more awareness of CA in developing

countries.

PAN-GME- 029P

Aplasia Cutis Congenita in a Female Nigerian Neonate: A Case Report

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Introduction: Aplasia cutis congenita (ACC) is a rare congenital disorder characterized by localized or widespread absence of skin mainly affecting the scalp. This is a case report of an eight-hour-old female neonate admitted with absence of skin on the lower limbs.

Aim: To describe ACC in a female neonate seen at Yobe State Specialist Hospital Gashua, Yobe State.

Case: We present a case of an eight-hour-old female newborn who presented with absence of skin over the lower limbs noticed at birth. She was a product of term pregnancy; delivery was at home and unsupervised. Pregnancy and delivery were uncomplicated. She cried immediately after birth. The mother took some traditional oral medications during the third trimester. She is a product of a non-consanguineous marriage and had no family history of a similar condition. On examination, she was not pale, not dehydrated and weighed 2.3kg. There was symmetrical well demarcated ulcer with sloping edge around the anteromedial aspect of the lower limbs, extending from the anteromedial part of distal third of the thighs and extending to the dorsal and medial plantar aspect of the feet. The scalp, upper limbs and the mucous membranes were not affected. Other systemic examinations were normal. She was managed with occlusive "sofratulle" dressing. The lesions were healing satisfactorily until she left against medical advice (LAMA) on the 6th day of admission.

Conclusion: This creates awareness about the condition and highlights the success in the care despite LAMA.

PAN-GME- 030P

Fetomaternal Haemorrhage: A Case Report

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Introduction: Fetomaternal haemorrhage (FMH) is the passage of blood from the foetal circulation into the maternal circulation through the placenta. This happens in most pregnancies without symptoms and can also be clinically silent hence a high index of suspicion is required in making prompt diagnosis and effective treatment.

Aim: To highlight this uncommon disease entity, create awareness, aid in prompt diagnosis and improve outcomes of affected children.

Case Report: We report a preterm Low Birth Weight female delivered by a 23-year old G3P0+2 mother at 33weeks gestation by CS on account of bad obstetrics history. Baby had a good cry, was active, not pale, anicteric, afebrile, but in respiratory distress and grunting respiration. Other examinations were normal. She received intranasal oxygen at 2L/min. Five hours into admission, the baby was noticed to be severely pale, fairly active with reduced tone globally. Pulse rate was 160bpm and the respiratory rate was 70-100cpm, with worsened respiratory distress. Urgent PCV was 27%. The parents were informed and counselled on the need for blood transfusion but they refused because of their religion and documented their refusal, opting for other options to correct the anaemia.

The baby's condition deteriorated, and the repeat PCV was 16% terminally. The baby stopped breathing 27 hours into admission. Attempts at resuscitation failed and she was certified dead. Autopsy was also declined by the parents.

Conclusion: FMH is a rare disease condition. A high index of suspicion is needed to make early diagnosis hence reducing morbidity and mortality.

PAN-GME- 031P

Risk Factors for Bacterial Blood Stream Infection Among Neonates in a Tertiary Health Institution in Northern Nigeria

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Introduction: Major risk factors for neonatal sepsis in sub-Saharan Africa include preterm deliveries, premature rupture of membranes, prolonged rupture of membranes (≥ 18 hours), prolonged labour, maternal febrile illness, low birth weight, instrumental deliveries. However, cultural practices and unhygienic delivery are some underlying causes of the infection.

Aim: To identify the risk factors for blood stream bacterial infection using a prospective cross-sectional design.

Results: A total of 1145 live babies were delivered during the period; however, three hundred and forty neonates with suspected sepsis were studied and had blood culture done using BACTEC system. The results showed that one hundred and eight (30.3%) of the 340 neonates enrolled had positive blood culture. Among the positive blood culture neonates,

thirty-three were in-born, thus the prevalence of blood culture positive neonatal sepsis in AKTH was 28.8 per 1000 live births (27.0%). The infection rate was higher among the out- born (34.4%). Overall bacterial infection showed 36 (33.0%) were Gram-positive while 62 (56.9%) were Gram-negative organisms. The independent risk factors for positive culture on multivariate analysis were; prolonged rupture of membrane, prematurity, pre-labour rupture of membrane, caesarean delivery and uvulectomy ($p<0.05$).

Conclusion: The prevalence of blood culture-positive neonatal sepsis was high with the bacterial isolates showing high antibiotic resistance, hence, the need to frequently review the pattern of the isolates and their susceptibility to antibiotics.

PAN-GME-032P

Cord Blood Leptin Levels and Anthropometric Indices in Virally Suppressed HIV-Positive and HIV-Negative Mother-Singleton Newborn Pairs: A Comparative Analysis

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Introduction: Notwithstanding the efficacy of prevention of mother-to-child transmission (PMTCT) interventions, *in-utero* HIV exposure continues to correlate with heightened morbidity and mortality rates. This necessitates a comprehensive understanding of the underlying mechanisms to facilitate the development of effective interventions aimed at enhancing the outcomes of HIV-exposed infants.

Aim: To examine the relationship between cord blood leptin concentrations and anthropometric indices among virally suppressed HIV-positive and HIV-negative mother-newborn singleton pairs at NAUTH between January and August 2023.

Methods: Mother-newborn pairs were recruited through stratified random sampling techniques. Data on socio-demographic factors, obstetric history, anthropometric measurements, and medical variables were collected using a semi-structured questionnaire. The quantification of cord blood leptin levels was conducted utilizing an *Elabscience*® ELISA assay kit.

Results: Each cohort comprised 65 mother-newborn dyads. No statistically significant disparities were observed with regard to age, educational attainment, marital status, or socioeconomic class across the groups. Approximately 95% of the HIV-positive mothers were on Dolutegravir-based regimen. The HIV-positive mothers exhibited a significantly lower median weight gain rate during the third trimester ($p = 0.001$), intrapartum body mass index ($p = 0.030$), and mean mid-arm circumference ($p = 0.017$). HIV-exposed newborns demonstrated significantly lower mean birth weights ($p = 0.002$), birth weight-for-gestational age (GA) percentiles and Z-scores ($p<0.001$), ponderal index ($p = 0.002$), mid-arm/occipitofrontal circumference (OFC) ratio ($p<0.001$), and OFC-for-GA Z-scores ($p = 0.004$). HIV-exposed newborns had significantly lower cord blood leptin levels ($p = 0.012$), with leptin showing moderate and weak positive correlations with birth and maternal anthropometric indices, respectively. Dolutegravir exposure had no effect on cord blood leptin levels.

Conclusion: HIV-exposed neonates significantly had lower cord blood leptin levels and adverse anthropometric outcomes. Leptin levels correlated positively with neonatal and maternal anthropometric indices. Further research is needed to tailor interventions for improving outcomes in HIV-exposed infants.

PAN-GME-033P

Anoxic Encephalopathy with Neurological Sequelae Complicating Bacterial Tracheitis in a Five-Year-Old Child: A Case Report

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Introduction: Bacterial tracheitis is a rare but life-threatening form of croup. It is not well known with neurological sequelae.

Aim: To report a case of a 5-year-old boy managed for bacterial tracheitis with neurological sequelae at Usmanu Danfodiyo University Teaching Hospital, (UDUTH), Sokoto.

Case: SI, a 5-year-old boy was rushed to the emergency paediatric unit with complaints of a three-day history of high-grade fever and barky cough with associated hoarseness of voice and sudden onset shortness of breath. At presentation, he was febrile (38.3°C) in severe respiratory distress with stridulous breathing. Oxygen saturation was 85% in room air. Neck X-ray showed steeple sign with candle dripping sign. A diagnosis of Viral croup was made. He had intramuscular dexamethasone, oxygen therapy and adrenaline nebulization on several occasions with no response. At that point, a provisional diagnosis of bacterial tracheitis was made. FBC showed marked

neutrophilia. He was commenced on Intravenous ceftriaxone and metronidazole and had endotracheal intubation performed twice by the anaesthetist team. He later had cardiac arrest from hypoxia necessitating cardiopulmonary resuscitation which was successful. He lapsed into coma for 35days. Subsequently started having seizures and developed spasticity. He was commenced on oral phenobarbitone, carbamazepine and nitrazepam with physiotherapy. He is currently on follow-up visit at the neurology clinic.

Conclusion: Bacterial tracheitis can be complicated with neurological sequelae following severe hypoxia. There is the need for high index of suspicion for early aggressive management of this condition.

PAN-GME-034P

Cornelia De Lange Syndrome in a 14-Year-Old Girl at UUTH, Sokoto

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Introduction: Cornelia de Lange syndrome is a rare genetic disorder that is due to mutations in one of the seven cohesion-associated genes (NIPBL). It is characterized by distinctive facial appearance, marked prenatal and postnatal growth deficiency, developmental delays, intellectual disability, behavioural and limb deformities amongst others. This is the first known reported case of Cornelia de Lange from Northern Nigeria.

Case: A 14-year-old Primary Five adolescent girl presented to the Paediatric Neurology Clinic for global developmental delays (motor, speech and language), poor school performance, recurrent constipation and feet deformities. She was noticed to be small sized and had had a weak cry sound at birth, and also had difficulty in suckling. Physical examination findings revealed marked growth retardation viz height of 136cm (<5th percentile) and weight of 35kg (<5th percentile), craniofacial features (synophrys, bushy eyebrows, low nasal bridge, smooth philtrum, thin upper lip and downturned corner of the mouth). She also had small hands, proximally placed thumb, clinodactaly, hirsutism, low posterior hairline and feet deformities. Hearing assessment revealed conductive hearing loss of the right ear, but echocardiography findings were normal.

Conclusion: Cardinal features of synophrys and thick eyebrows, short nose with low nasal bridge, long and smooth philtrum, thin upper lip, with suggestive features including global development delay and intellectual disability, prenatal growth retardation, postnatal growth retardation, small hands, short fifth fingers, hirsutism made a case of classic Cornelia de Lange syndrome highly likely.

PAN-GME-035P

Post-Lightning Strike Psychogenic Non-Epileptic Seizure (PNES): A Case Report

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Introduction: Psychogenic Non-Epileptic Seizures (PNES) are paroxysmal spells which bear semblance to an epileptic seizure. Neurobehavioral complications following lightning strikes are frequent and resemble the symptoms of patients with traumatic brain injury. However, evidence of lightning injuries is restricted to case reports and series and non-systematic reviews.

Case: A nine-year old boy who was struck by lightning during a thunderstorm while playing by the door of his classroom. He fell and was unconscious for about 20 minutes after which he regained consciousness with no significant physical injuries. The immediate effect of the attack on body organs were not identified as he was not taken to a health facility for review immediately after the attack. However, four days later he developed persistent myoclonic jerks with varying intervals and of several episodes per day which can be induced by touch. It was sometimes associated with loss of consciousness. A 24-hour Long-Term Video Electroencephalogram Monitoring (LTVEM) showed a normal study. FBC was essentially normal. Serum electrolytes urea and creatinine were normal except for mild hypocalcaemia which was treated. Brain MRI was yet to be done due to severe financial constraints. Hence a diagnosis of trauma-induced Psychogenic Myoclonus was entertained.

PAN-GME-036P

Meckel Gruber Syndrome: A Reported Case from The Modibbo Adama University Teaching Hospital, Yola

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Introduction: Meckel Gruber Syndrome is a rare and lethal autosomal recessive disease with a worldwide incidence of 1 in 13,250 to 140,000 livebirths. Six different genetic mutations of proteins Meckelin (MKS) 1 and (MKS 3) results in

defects in cilliogenesis resulting to dysfunction of cilia and flagella. It is characterized by the triad of polycystic kidneys, occipital encephalocele and polydactyl in addition to other multisystem anomalies.

Case: A female neonate delivered at term with the following congenital anomalies apparent at birth: a ruptured occipital encephalocele, hypertelorism, cleft palate, ankyloglossia, set of twenty natal teeth, micropthalmia, webbed shortened neck, arthrogryposis with contractures at the elbow and knee joints, micromelia, post-axial polysyndactyly and protuberant lax abdomen. She weighed 3,087grams, was apnoeic with APGAR scores of 1 in the first and 2 in the fifth minutes respectively. Cardiopulmonary resuscitation did not improve APGAR scores and the neonate was confirmed clinically dead at 45 minutes of life. Further history revealed that the preceding sibling had been stillbirths and also had an occipital encephalocele, flabby abdomen and polydactyly. The parents were in a consanguinous marriage. A diagnosis of Merckel Gruber syndrome was suspected. A post-mortem examination revealed bilateral polycystic kidneys, atrial septal defect, cerebral oedema, epidural and subdural haemorrhages, collapsed lungs and hepatic fibrosis. The parents were counselled about the tendency for recurrence in subsequent pregnancies.

Conclusion: This case report adds to existing literature on Meckel Gruber Syndrome which is a rare lethal autosomal recessive condition.

PAN-GME-037P

Lamellar Icthosis in Siblings Co-Existing with Osteogenesis Imperfecta: A Case Report

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Introduction and Aims: Congenital ichthyosis and Osteogenesis Imperfecta are genetic conditions affecting the skin and skeletal system respectively. Lamellar ichthyosis (LI) is a rare form of congenital ichthyosis inherited in an autosomal recessive manner. We report the occurrence of lamellar ichthyosis amongst three siblings with associated Osteogenesis Imperfecta in the female sibling.

Case: We present three siblings aged 2, 8 and 11 years, all of whom were delivered with scaling of the skin. They were born in a consanguineous marriage. Skin lesions were initially mild but deteriorated within the first year of life. The oldest sibling was the only girl in the family and had the most severe presentation since birth. At six years of age, she started having multiple, repeated fractures with associated limb angulation and inability to walk. Her examination findings revealed associated anhydrosis, poor tooth eruption and bowing of both lower limbs. Her X-ray of the long bones showed telephone handle deformities with multiple healed fractures and over tabulation of the bones, consistent with the diagnosis of Osteogenesis Imperfecta. All the three children had ectropion with varying severity. Baseline investigations were normal in all of them. A diagnosis of lamellar-type ichthyosis was made in the three children with associated Osteogenesis Imperfecta in the female sibling.

Congenital ichthyosis and Osteogenesis Imperfecta both arise from mutations from different gene with no established direct relationship between them.

Conclusion: The occurrence of this rare condition amongst three siblings with its co-existence with osteogenesis imperfecta is an unusual finding.

PAN-GME-038P

Perinatal Mortality: A Fifteen Year Review in Federal Teaching Hospital Gombe

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Introduction: Globally perinatal mortality rates have decreased considerably in the last 30 years. However, it remains a public health burden in sub-Saharan Africa. In Nigeria perinatal mortality is still high.

Aim: To determine the trend, highlighting underlying causes in Federal Teaching Hospital Gombe.

Methods: This is a retrospective study of still births and live births (aged 0-7days) delivered and admitted into the Federal University Teaching Hospital, Gombe, from 2008 to 2022, using ICD-10. Epi-Info 3.5.1 was used for analysis.

Results: A total of 33,540 babies were delivered. There were 31,804 live births and 1,736 still births, with a total still birth rate of 5.2% (1,736/33,540). Early newborn death rate was 4.9% (1,635/33,540) with a cumulative perinatal mortality rate of 10.1% (3,371/33,540) in the study period. There has been a decrease in still birth rate from 6.3% (655/10444) in 2008-2012; 5.6% (554/996) in 2013-2017; 4.2% (550/13096) in 2018-2022.

Among the early newborn deaths (0-7days), males constituted 53.5% (726/1356) and 46.5% females (630/1356).

Perinatal asphyxia contributed 17.0% (574/3371). Prematurity (13.3%; 447/3371), neonatal sepsis (5.1%; 171/3371), multiple congenital malformations (2.1%; 71/3371), gastroschisis (1.8%; 62/3371), neonatal jaundice (1.7%; 58/3371), meconium aspiration syndrome (1.6%; 54/3371), haemorrhagic disease of newborn (1%; 33/3371), omphalocele (0.8%; 28/3371), intestinal obstruction (0.6%; 20/3371), imperforate anus (0.5%; 18/3371). Monthly distribution ranged between 0.5% and 0.9%, peaking in May and troughing in October. The yearly trends ranged between 0.4%-1.2% in the first 5 years, 0.5 %-0.8% second 5 years and 0.3%-0.6% in the last 5 years.

Conclusion: Perinatal Mortality rate has declined in the facility studied.

PAN-GME-039P

Spot Assessment of Seasonal Malaria Chemoprevention (SMC) During Therapeutic Efficacy Study (TES) 2023 in Febrile Children Aged Six Months to Eight Years at Damagum General Hospital, Fune LGA, Yobe State, Nigeria

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Introduction: Although SMC has been proven to reduce the burden of malaria in under-five children in areas with high seasonal malaria transmission, it is faced by multiple programmatic challenges which may undermine its protective efficacy and risk of drug resistance when deployed at full scale.

Aim: To provide a spot assessment of the relationship between SMC and clinical malaria.

Methods: Purposive sampling method and a structured questionnaire were used during 2023 TES to recruit 648 children (6 months to 8 years old) with parasitaemia followed by mRDT and microscopy.

Results: There was little or no correlation between SMC and the odds of clinical malaria in the 648 children included measured by RDT (OR = 1.7, 95%CI: 1.2 – 11.0; Fisher p = 0.004, Chi square = 8.77; p = 0.003) and microscopy (Fisher p = 0.154, Chi square = 2.27, p = 0.132).

Conclusion: This study concludes that spot assessment SMC during TES produced equivocal results indicating an apparent low impact of SMC. Although, the results cannot be generalized due to selection and reporting bias, the study highlights issues of adherence, coverage and the need for combined strategies for malaria control.

PAN-GME-040P

Burden of Infectious Causes of Childhood Deaths at the Federal Teaching Hospital Gombe: Two Decades Review.

Isaac WE, Jalo I, Rasaki A, Girbo A, Raymond MP, Lukman O, Adamu A, Chiroma T, Daniel FG, Useni RE, Solomon A.

Introduction: Infection is an important cause of mortality in the tropics.

Aim: To determine the leading infectious causes of death among hospitalized children in a tertiary facility.

Methods: This was a retrospective study of children aged 0-18 years with infection as the primary cause of death using ICD-10 from 2000 to 2019. The variables retrieved and analysed, using Epi-Info 3.5.1, included age, sex, cause of death, month and year.

Results: A total of 27,875 children were admitted during the study period, with 3956 deaths and a mortality rate of 14.2%. Infectious conditions accounted for 32.9% (1301/3956). The highest mortality was obtained from neonatal sepsis 21.4% (279/1301); early neonatal sepsis contributed 61.3% (171/279). Malaria, septicaemia, HIV/AIDS, pneumonia, bacterial meningitis, tuberculosis, diarrheal disease, tetanus, typhoid fever and viral hepatitis contributed 16%, 15.2%, 10.5%, 9%, 7%, 4.6%, 4.2%, 3.8%, 2.4% and 1.92% deaths respectively Malaria mortality was highest among males 56.5% (118/209), among Under-five children (68%; 142/209) and during the rainy season (66%; 138/209). Pneumonia death was highest among under-five children (74%; 87/118), males (53.4%; 63/118) and during the rainy season (60.2%). Tetanus mortality was highest in males (77.6%; 38/49) with a ratio 3:1; neonates constituted 55% (27/49). HIV/AIDS mortality was highest among under-five children (64.2%; 88/137) while the mortality rate among adolescents was 20.4% (28/137). Bacterial meningitis death rate was highest in the dry season (67.4%; 62/92), among under-five children (60%; 55/92) and then, adolescents 27.2% (25/92). Tuberculosis mortality was highest in the under-five age group (36.6%; 22/60) and in the 10-18yrs group (33.3%; 20/60). Mortality from malaria, pneumonia and meningitis occurred within 24 hours of admission in 36.8% (77/209), 29.7% (35/118) and 28.3% (26/92) respectively.

Conclusion: Infections especially in the under 5 has significantly contributed to mortality in our facility.

PAN-GME-041P

Caregivers' Characteristics of 1000 Admitted Children in Paediatrics Department of Federal Teaching Hospital, Gombe, from January to October, 2024

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Introduction/Aim: Socio-economic and psychosocial status and health seeking behaviour of caregivers influence the outcome of children's illnesses.

Aim: To determine the socioeconomic and psychosocial factors of caregivers which affect the outcome of childhood illnesses.

Methods: This is a questionnaire-based, cross-sectional study.

Results: Overall, 88.5% (885/1000) resided in Gombe. More than three-quarters (78.3%; 783/1000) were brought by the mothers and another 14.1% (141/1000) were brought by the fathers and the remaining by relatives. Also, 93.2% (932/1000) were immunised. Of the caregivers with fully immunized children, 27.6% (257/932) had primary or no education, 72.4% (674/932) had secondary and tertiary education (p = 0.223). A third (34.1%; 341/1000) of the mothers had secondary, 26.4% (262/1000) had tertiary while 26.3% (263/1000) had primary or no education. Half (52%; 520/1000) and 48% (480/1000) of caregivers were from middle and lower socioeconomic classes respectively; 7.1% (34/480) of the children from the lower socioeconomic classes died from the index illness while 3.1% (16/520) belonged to the middle class (p = 0.004). Bills were paid by the fathers in 82.7% (827/1000), by mothers in 6% and the remaining by other relatives. In 97.4% (974/1000) cases, there were 1-2 relatives by bedside and 2.6% (26/1000) had more than two relatives. Also, 89.5% (895/1000) of the mothers were married, 1.9% (19/1000) were divorced and 0.9% (9/1000) were widowed. Of the married caregivers, 67.7% (606/895) were in monogamous and 32.2% (289/895) in polygamous family settings. More than two-thirds of families (69.8%; 698/1000) had 1-5 children, 30.2% (302/1000) had >5 children. One-tenth (10.7%; 107/1000) had one child death, 3.5% (35/1000) had two deaths, 1.3% (13/1000) had three deaths and 0.7% (7/1000) had >3 deaths. More than half of the deaths (59.3%; 96/162) occurred in the hospital and 40.7% (66/162) at home.

Conclusion: The social class of caregivers may be related to the outcome of illnesses among hospitalized children.

PAN-GME—042P

Birth Defects: 22-Year Experience from the Federal Teaching Hospital, Gombe

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Introduction/Aim: Between 3% and 6% of infants are born with a birth defect with an estimated 9 million cases every year. Among the 193 reporting countries, the highest rate of birth defects are in the Middle East and North Africa.

Methods: This was a retrospective study of children with congenital malformations aged 0-18 years, who presented to the facility between 2000 and 2022. ICD-10 classification was used for diagnosis. The variables retrieved included age, sex, tribe and diagnosis.

Results: The total number of children outpatients and admissions within the study period was 170,227; 1800 of this had birth defects, with a prevalence rate of 1.3%. Males affected were 1082/1800 (60.1%) while females were 716/1800 (39.8%). The male-to-female ratio was 1.5:1. From the year 2000 to 2004 there were 154 (8.5%) cases of birth defects (BD); 224 (12.4%) cases in 2005 – 2009 and 393 (21.8%) in 2010 – 2014. The others included 600 (33.3%) cases in 2015 – 2019 and 439 (23.8%) cases in the year 2020 - 2022. The system most affected was the digestive tract 656/1800 (36.4%). The rate of involvement of the other system were as follows: central nervous system in 451/1800 (25.1%); genitourinary in 189/1800 (10.5%); cardiovascular in 186/1800 (10.3%); musculoskeletal in 93/1800 (5.2%); the head and neck area in 83/1800 (4.6%); endocrine in 12/1800 (0.7%) and the remaining 74 (4.1%) were unspecified malformations. The commonest defects were congenital malformations of the intestine in 234/656 (35.7%); Hirschsprung disease in 151/656 (23%); omphalocoele in 83/656 (12.7%) and gastroschisis in 54/656 (8.2%). In the central nervous system, spina bifida occurred in 298/451 (66.1%) and encephalocole in 47/451 (10.4%). Hypospadias/epispadias and undescended testes accounted for 71/189 (37.6%) and 30/189 (15.9%) respectively in the genitourinary system.

Conclusion: Birth defects are increasing in incidence or reporting or both at the facility.

PAN-GME—043P

Determinants of Insecticide Treated Mosquito Net Usage in Adamawa State, Nigeria

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Introduction: Insecticide-treated nets (ITNs) are a critical component of malaria prevention in Nigeria. Despite extensive distribution campaigns, usage rates and maintenance practices vary widely, particularly in North-eastern Nigeria. Examining socioeconomic and behavioural factors affecting ITN usage can guide targeted interventions to reduce malaria transmission effectively.

Aims: To investigate key determinants of ITN usage in Adamawa State, focusing on factors such as household characteristics, seasonal usage patterns, net maintenance practices, and sources of nets.

Methods: A cross-sectional survey conducted during the 2022 End of Round Seasonal malaria chemoprevention programme, using questionnaire administered by research assistants who visited 1,008 households randomly selected from six LGAs in Adamawa State. The information generated included, ITN ownership, washing and drying practices, seasonal usage, and demographic characteristics.

Results: ITN ownership rate was high, with 83.2% of households owning at least one net, primarily provided for free. While children were prioritized, net usage fluctuated seasonally, with 54.8% using nets year-round and 44% only in the rainy season. Maintenance practices varied, as 56.8% dried nets in direct sunlight and 45.1% used detergent for washing, potentially compromising net integrity. Notably, 39.9% reported mosquito perching on nets, indicating decreased efficacy.

Conclusion: High ITN ownership in Adamawa State does not translate to optimal usage. Seasonal variability and maintenance habits, particularly improper drying methods, may reduce ITN effectiveness. Community education on consistent, year-round use and best practices for net care could significantly enhance malaria prevention efforts in the region.