

Abstracts of Proceedings

49th Annual General and Scientific Conference of the Paediatrics Association of Nigeria (PANCONF), 24th - 26th January, 2018

AP 1

Parent and adolescent reported sleep parameters and the pattern of sleep disorders among school attending adolescents in Ile-Ife, Nigeria

Oluwatosin EO¹, Adesegun OF,² Morenikeji AK,³ Akinlolu O,⁴

¹Paediatric Neurology Unit, Department Of Paediatrics And Child Health, Obafemi Awolowo University, Ile-Ife, Nigeria.

²Department of Public Health and Community Medicine, Obafemi Awolowo University, Ile-Ife, Nigeria. ³Adult Neurology Unit, Department of Internal Medicine, Obafemi Awolowo University, Ile-Ife, Nigeria. ⁴Department Of Community Medicine, Osun State University, Osogbo, Nigeria.
Email: doc_tosino@yahoo.com

Background: Sleep problems have been reported to be very common in adolescents in developed countries. However, there is a dearth of studies on the sleep pattern and the types of sleep problems of adolescents in our environment.

Objectives: To determine the sleep parameters of Nigerian school-attending adolescents and the pattern of sleep problems in the adolescents.

Methods: This descriptive cross-sectional survey was conducted in selected public and private secondary schools in Ile-Ife, Nigeria. The adolescents filled the Adolescent sleep habits survey while a parent-reported questionnaire, the Sleep Disturbance Scale for Children designed for children and adolescents was used to determine the type of sleep disorders present in the adolescents.

Results: A total of 346 adolescents were studied with a male to female ratio of 1: 1.1 and a mean age of 13.5±2.29 years. The mean total sleep duration for the adolescents was 9 hours (h) 08 minutes (m)±113m and 7 h 15m±86m for weekends and weekdays respectively with significantly higher values on weekends when compared with weekdays ($p=0.001$). Disorders of initiating and maintaining sleep (DIMS) which encompasses insomnia and circadian rhythm disorders were the most common type of sleep disorder in the adolescents.

Conclusion and Recommendation: Disorder of initiating and maintaining sleep (DIMS) and circadian rhythm disorders occur in Nigerian adolescents. Adolescents have shorter sleep duration than their subjective sleep need. Therefore, there is a need to educate the adolescents and their parents on the importance of adequate sleep. Further studies using objective tools are needed.

AP 2

Views and experiences with sexting among post-secondary young people in Ibadan, Nigeria

¹Olatunde OE., ^{1,2}Balogun FM.

¹Institute of Child Health, College of Medicine, University of Ibadan, Ibadan, Nigeria.

²University College Hospital, Ibadan, Nigeria
Email: folushom@yahoo.com

Background: Sexting is the sharing of sexually suggestive or explicit text messages or videos using mobile phone. It has been associated with contrasting things ranging from risky health behaviours to maintaining romantic relationships. Due to the increase in cell phone possession among Nigerian young people, it is important to know their views and experiences with sexting.

Objectives: This study explored the experiences of post-secondary young people attending pre-varsity examination preparatory centers in Ibadan regarding sexting.

Methodology: This was a qualitative study in which four focus group discussions and four in-depth interviews were conducted among purposively selected young people and those who engage in sexting respectively. Content analysis of the data was done after transcription.

Results: Sexting was described as rampant among young people and it occurs with peers, adults and international partners. Sexting occurs usually between opposite sex and it was mostly sent using social media with videos and photos commoner than texts. Males reported sending and receiving sext but are of the opinion that females request for them. All the females denied ever sending sext. Reasons for sexting include to initiate romantic relationship, imitate celebrities, get fame and feel acceptable by peers. Experienced and witnessed consequences of sexting include actual sexual intercourse, shame, blackmail and attempted suicide. Only two of the participants would allow their parents to see sext sent to them.

Conclusion: Sexting was common among these young people and it is sent across borders. The implication of sexting should be taught in schools to forestall its health and legal consequences.

Key words: Sexting, Young people, Social media

AP 3

Exploring health workers' perspective about cervical cancer prevention using human papilloma virus vaccine for adolescents in Ibadan, Nigeria: a qualitative study

^{1,2}Balogun FM., ^{1,2}Omotade OO

¹Institute of Child Health, College of Medicine, University of Ibadan, Ibadan, Nigeria. ²University College Hospital, Ibadan, Nigeria.

Email: folushom@yahoo.com.

Background: There have been gradual introduction of human Papilloma virus (HPV) vaccine for adolescents in some African countries with the aim of prevention of cervical cancer. The success of this programme in Nigeria depends on the health care workers in charge of immunization as they wield great influence on parents' decision to vaccinate their adolescents.

Objectives: This study explored the views of health care workers in charge of immunization about HPV vaccine for adolescents in selected communities in Ibadan, Nigeria.

Methodology: This was an exploratory qualitative study in which fourteen key informant interviews were conducted with two paediatricians, two family physicians, eight nurses, one health visitor and one social worker. Recorded interviews were transcribed and content data analysis was done with the aid of the NVivo software.

Results: The HPV vaccine for adolescents was acceptable to almost all the health care workers but there were some misconceptions about cervical cancer. Female healthcare workers tend to have better knowledge about cervical cancer and HPV vaccine. The main concern about the vaccine was the high cost and general poor knowledge about the vaccine. Apart from cost, the other challenges envisaged for future HPV vaccine programme in Nigeria include completion of the required course and lack of an adolescent health structure to reach the adolescents. Few workers will not freely recommend the vaccine because of the poor knowledge they have about the vaccine.

Conclusion: The HPV vaccine was acceptable to the health workers but there were some identified potential challenges to a successful HPV vaccination programme in Nigeria.

Key words: Immunization programme, Human Papilloma virus vaccine, Health care workers, Adolescents

AP 4

Hypertension in secondary school adolescents in Gwagwalada Metropolis

Onalo R, Bawa A, Okechukwu A

Paediatric Cardiology Unit, Department of Paediatrics, University of Abuja Teaching Hospital, Gwagwalada, Abuja

Email: richardonalo@yahoo.com

Background: Hypertension in children has been shown to be on the increase, morbidity associated with the con-

dition is enormous. Early diagnosis and prompt management is vital.

Objective: To determine the prevalence of hypertension among secondary school adolescents in Gwagwalada metropolis

Methods: A multistage sampling technique was used to select 490 secondary school adolescents (10-17years) from 25 secondary school in Gwagwalada. BP measurement was done using mercury sphygmomanometer following standard procedure. Hypertension was defined using the criteria set by the 4th report of the National High Blood Pressure Education Program working group on hypertension in children. Data were collected using pretested questionnaire.

Results: A total of 490 students, comprising of 200 males (40.7%) and 291 females (59.7%), M: F ratio of 1.1.5, were studied. The overall prevalence of systolic hypertension was 8.8% while that of diastolic hypertension was 9.2%. There was statistically significant difference in the gender rates for diastolic hypertension ($\chi^2=15.04, p=0.002$) but not for systolic hypertension ($p=0.911$). The prevalence of hypertension increased with age, especially among those with overweight and obesity, from 12.3% in early adolescents (10-13years) to 27.8% in late adolescents (17-19years). Children with BMI greater than the 85th percentile had 4.4 times the risk of having hypertension than those with BMI of < 85th percentile.

Conclusion: Elevated BP is not uncommon in apparently healthy school children, especially among those with high BMI, thus regular BP screening and control of obesity among school children is recommend.

AP 5

What is killing our adolescents in North East Nigeria: a 15 year review from Federal Teaching Hospital, Gombe.

Isaac WE¹, Jalo I¹, Alkali Y¹, Ghidazuka Y¹, Ajani A¹, Iliya A¹, Oyeniyi C¹, Lano M¹, Popoola A¹, Ebisike K¹, Wariri O¹, Aliu R¹, Girbo A¹, Raymond M¹, Ndubuisi V¹, Bakari H¹, Umar A¹, Olatoke L¹, Burak V¹, Hassan K¹, Richard E¹, Tukur H¹, Rabo Y¹, Ezra D¹, Bakura H¹, Daniel A¹, Mshelia Y², Apollos M²

¹Department of Paediatrics, ²Department of Health Records, Federal Teaching Hospital, Gombe.

Introduction: Adolescence is the transition between childhood and adulthood and it comprises of children between ages 10-18. The mortality rates are low in adolescents compared to other age groups. It is a period of risk taking, immense biologic, psychologic and social change

Aims: To determine the causes of death in adolescents in a tertiary health facility.

Methodology: A Retrospective study using International classification of Diseases (ICD10) based on case notes and death certificates of children who died between 2000- 2015 in the facility.

Results: 2888 children died within the time period. 13.0% (376/2888) were adolescents. 55.6% (209/376)

were males and 44.4% (167/376) females. 84.0% (316/376) and 15.7% (59/376) practiced Islam and Christianity respectively. 22.6% (85/376) died within 24 hours of admission; 41.5% (156/376) between 24 hours to 7 days. Yearly average death is 25. The leading causes of death included: Injuries 10.1% (38/378); Eclampsia 7.7% (29/376); HIV/AIDS 6.4% (24/376); Septicaemia 5.9% (22/376); Rheumatic Heart Diseases 5.3% (20/376); Malaria 4.5% (17/376); Tuberculosis 4.3% (16/376), Acute Pyogenic Meningitis 4.0% (15/376); Leukaemia 4.0% (15/376), Neoplasms 3.2% (12/376); Chronic Renal Failure 3.0% (11/376); Viral Hepatitis 2.7% (10/376); Burns 2.7% (10/376); Pneumonia 2.4% (9/376); Sickle cell Anaemia 2.4% (9/376).

Conclusion: Injuries were found to be the leading cause of death which is in keeping with global report. Eclampsia related death is probably related to early marriage in the sub region. HIV/AIDS and other infections still constitute a significant cause of mortality. Adolescents health clinics and paediatrics adolescents sub specialty trainings are therefore urgently recommended.

Author declare no conflict of interest.

AP 5

Substance use among secondary school adolescents in Gwagwalada Area Council, Abuja, Nigeria

Ekop EE,¹ Anochie IC,² Airede KI,¹ Obembe A³
Department of¹Paediatrics, University of Abuja Teaching Hospital, Abuja, Nigeria.

²University of Port Harcourt Teaching Hospital, Port Harcourt, Rivers State, Nigeria.

³Psychiatry, Usman Danfodio Teaching Hospital, Sokoto, Nigeria.

Introduction/Background: Adolescent substance use is a growing epidemic that is placing heavy burdens on individuals, families and communities hence the stimulus for this study.

Aim/Objectives: To determine the prevalence and pattern of substance use among secondary school adolescents in Gwagwalada Area Council, Abuja, Nigeria.

Materials and Methods: A questionnaire-based, cross-sectional, descriptive study done over a three-month period among secondary school adolescents aged 10 to 18 years old after obtaining appropriate ethical approvals, consent and assent.

Results: A total of 1,196 questionnaires were analysed, of which 641 (53.6%) were females and 1,052 (87.96%) from public schools. The overall prevalence rate for lifetime use was 72.7%. The substance with the highest prevalence rates for lifetime, annual and current use was kolanut (44.3%, 24.4 and 11.0%, respectively) and lowest for heroin (0.7%, 0.6% and 0.5%, respectively). There was a statistically significant male preponderance for licit substance use and a non-statistically significant female preponderance for illicit substance use. 507 (42.4%) students were single substance users while 363 (30.35%) students were multiple substance users. Age at first use was at ten years of age or less.

Conclusion and recommendations: There is need for

strengthening substance use prevention programmes and implementing regulatory laws on sale and use of substances. Stiffer penalties for offenders are recommended.

EP 1

Audit of cardiopulmonary arrests among paediatric patients at the University College Hospital Ibadan

Adeigbe O, Akindolire AE, Tongo OO
Department of Paediatrics, University College Hospital, Ibadan, Oyo State, Nigeria
Email: abimbola_12@yahoo.com

Introduction: Cardiopulmonary arrests (CPA) in children are often fatal and mostly preceded by warning signs. Early recognition of warning signs and prompt actions may prevent fatality. In order to the improve effectiveness of resuscitation regular reviews are needed to audit the procedure and fill in any existing gaps.

Aim: To describe the incidence, events preceding and outcomes of paediatric cardiopulmonary arrests at the University College Hospital, Ibadan.

Subjects and methods: This was an observational study of all paediatric admissions over a 3-month period. Every patient who had a CPA at any time during admission had their clinical details entered into a structured proforma.

Results: Of the 886 paediatric admissions (245 neonates), 48 patients (5.4%) had at least 1 episode of either respiratory or cardiac arrest. There was no isolated cardiac arrest. There were 60 episodes of respiratory arrests, 10 of which required only bag and mask ventilation, while 2 had mechanical ventilation and 48 episodes had accompanying cardiac arrest and had chest compressions and IPPV. Neonates accounted for 33(55.0%) of events and majority 48(80.0%) of events occurred in under-5s. There was at least one preceding event in 58 (96.7%) cases: respiratory distress 40(66.7%), circulatory collapse 18(30.0%), deteriorating level of consciousness 29(48.3%), tachycardia 20(33.3%). Of the 60 events, 52 were not successfully resuscitated, 8 were alive after 24 hours, 3 survived to discharge. Those who had longer than 30 minutes of resuscitation all died.

Recommendations: Cardio-pulmonary arrests in children are not usually sudden therefore prompt identification of warning signs and effective treatment are likely to improve outcome.

EP 2

Paediatric critical care training in Nigeria: an urgent gap to fill

Bello O, Akindolire AE, Tongo OO
Department of Paediatrics, University College Hospital, Ibadan, Oyo State, Nigeria
Email: abimbola_12@yahoo.com

Introduction: Majority of the causes of critical illness in developing countries such as Nigeria are treatable.

Therefore early recognition of critically ill children as well as proper triage and institution of supportive and definitive treatment is required to improve outcomes. There are however no established formal paediatric critical care training in Nigeria at preservice and postgraduate levels and learning about critical care is done passively.

Aim: This study set out to evaluate the knowledge of residents and house officers on identification and triaging of critically ill children.

Subjects and methods: Information was obtained from resident doctors and house officers using a structured questionnaire, specific knowledge sought included signs of critical illness children, meaning of triage and triage protocols and if they had had any formal teachings in paediatric critical care.

Results and conclusions: One hundred-and-fifty-six doctors (28 interns, 92 registrars and 36 senior registrars) from 27 centres in Nigeria were interviewed. Sixty-seven (42.9%) had been taught about recognition and triaging of critically ill children, 21.9% in medical school and 21% as residents. Seventy (44.9%) were aware that their centre had triage protocols, but only 14 (9.0%) knew the protocols. Fifty (32.1%) correctly defined triage and 35 (22.4%) had good knowledge of the signs of critical illness in children. The mean score was $43.09\% \pm 1.8$ among those who had been taught and $36.5\% \pm 2.5$ in those who had not been taught.

Recommendations: There is a knowledge gap in identifying and triaging of critically ill children. It is expedient to include basic teachings in paediatric critical care in both preservice and post graduate curricula in Nigeria.

EP 3

Accidental poisoning among under-five children at the children's emergency room of federal medical centre umuahia

Ibeneme CA, Ogbonna IF, Nwala GC

Department of Paediatrics, Federal Medical Centre, Umuahia

Email: chik4sco@yahoo.co.uk

Background: Accidental poisoning among under-five children remains a recognized cause of morbidity and mortality with highest rates in low-income countries. Its prevalence and types vary from place to place with presenting features ranging from mild to near fatal symptoms.

Aim: To document the frequency and pattern of accidental poisoning among under-fives at the Children's Emergency Room of the Federal Medical Centre Umuahia.

Subjects and methods: A retrospective review of cases of under-fives with accidental poisoning over 8 years. Information such as age, sex, type of poison, presenting features and others were analyzed.

Results: Of 9492 under-fives, 53 (0.6%) were cases of accidental poisoning. Mean age was 21.2 ± 10.1 months. Male to female ratio was 1.8:1. Mean duration from incident to presentation was 2 hours. Most common route of poisoning was ingestion (94.3%). Kerosene was

the most common substance. Palm oil (83.3%) and coconut water (16.7%) were the commonest forms of home remedies. Presenting features ranged from mild symptoms such as fever and vomiting to near fatal symptoms such as seizures and coma. One patient was managed in ICU. There was no documented mortality.

Conclusion: Accidental poisoning remains a common cause of presentation to emergency room with kerosene being the commonest agent. Early presentation and prompt management will help to reduce mortality.

Key Words: Poisoning, Accidental, Kerosene, Children

EP 4

Morbidity pattern and outcome among under-fives at the children's emergency room of federal medical centre umuahia

Ibeneme CA, Ezuruike EO, Korie FC, Chukwudi NK, Ukpabi IK

Department of Pediatrics, Federal Medical Center, Umuahia

Email: chik4sco@yahoo.co.uk

Background: The patterns and outcome of under-five morbidity in health care facilities are invaluable tools that reflect the disease burden and health care needs of the children in the community. Efforts are being made over the past few years to improve child care services in our centre. A preliminary report therefore will assist in goal-targeted intervention strategies and serve as a baseline for subsequent reviews.

Aim: To evaluate the morbidity pattern and outcome of under-fives at the Children's Emergency Room of the Federal Medical Center (FMC) Umuahia.

Subjects and methods: A retrospective review of post-neonatal under-five cases over five years. Information such as age, gender, date of admission, final diagnosis and outcome were analyzed.

Results: Of the 5,884 under-fives admitted over the study period, 56% were males with a male to female ratio of 1.2:1. The month of highest admissions was January. The leading causes of morbidity were malaria, diarrheal diseases and respiratory tract infections accounting for 79.9%. Sepsis was the most common morbidity noted among infants [$p < 0.0$]. Mortality rate was 4%. Death rate among infants was significantly higher than those beyond infancy, $p < 0.01$.

Conclusion: Preventable infections are the leading causes of post-neonatal under-five morbidity in FMC Umuahia.

Key words: Pattern, Morbidity, Under-fives, Nigeria

EP 5

Respiratory illnesses presenting to the cher of a tertiary hospital in south-east nigeria: a retrospective study

Ofiaeli OC*, Ndukwu CI*, Nri-Ezedi C*, Ofiaeli OAR**

*Department of Paediatrics, NAUTH, Nnewi.

**Department of Microbiology, NAUTH, Nnewi.

Email: ofiaeliogochukwuchioma@gmail.com

Introduction: Respiratory illnesses are a major cause of morbidity and mortality in children worldwide.

Aim and Objectives: The aim of this study was to determine the respiratory illnesses that had presented to the Children Emergency Room (CHER) of Nnamdi Azikiwe University Teaching Hospital, Nnewi, a tertiary hospital in South-East Nigeria, from July 2011 to June 2016. Age and gender distribution of these presentations as well as outcome of admission within 72hrs in the CHER were also sought for.

Methods: Health records of all children presenting over a 60 month period were accessed and analyzed.

Results: A total of 4622 children had been admitted into the CHER OF NAUTH, Nnewi over the specified period. Six hundred and sixty-eight (14.45%) had an Acute Respiratory Illness. Age range of the children was 1 month to 16 years, mean age was 2.33 years (SD 3.56 years), median age was 1 year and the most frequent age among the children who had presented with a respiratory illness was 1 year. The most common diagnosis was Bronchopneumonia - 273 cases (40.87%); followed by Bronchiolitis, Aspiration pneumonia and Acute Asthma (11.68 %, 6.59% and 3.44% respectively). There was equal gender distribution among the modal age of presentation. Majority of the cases were transferred to the ward for continued care within 72hrs of admission - 367 (54.94%) while 54 (8.08%) died. Both age and gender had no significant relationship with outcome of 72hours of admission in CHER (P>0.05).

Conclusion: Prevalence of ARIs among toddlers is still unacceptably high. Efforts have to be re-enforced in order to reduce the negative impact of respiratory illness on child health and survival in the sub region.

Key Words: Respiratory illness, CHER

Top 20 causes of death in children of all ages in a tertiary health facility in North East Nigeria: a 15 year review

Isaac WE¹, Jalo I¹, Alkali Y¹, Ghidazuka Y¹, Ajani A¹, Iliya A¹, Ndubuisi V¹, Oyeniyi C¹, Lano M¹, Popoola A¹, Ebisike K¹, Wariri O¹, Aliu R¹, Girbo A¹, Raymond M¹,

Bakari mortality in children in Nigeria. The North-East geopolitical zone of the country has the worst child survival figures

Aim: To determine the causes of death in children of all ages in a tertiary health facility.

Methodology: A Retrospective study using International classification of Diseases (ICD10) based on case notes

and death certificates of children who died between 2000- 2015 in the facility using simple hierarchical approach in Federal Teaching Hospital, Gombe

Results: Children constituted 31.0% (2888/9294) of total hospital deaths. 55.5% (1602/2888) were males and 44.5% (1285/2888) females. Neonates, Infants, Toddlers, Pre-school, School age and Adolescents constituted 49.5% (1431/2888), 13.9% (404/2888), 11.6% (335/2888), 3.7% (106/2888), 7.9% (231/2888) and 13.0% (376/2888) respectively. 26.5% (751/2888) died within 24hrs on admission; 50.4% (1428/2888) died within seven days; 10.3% (290/2888) died after 14 days of admission. Birth Asphyxia 15.7% (456/2888), Low Birth Weight 8.4% (243), Neonatal Sepsis 6.0% (176), Congenital malformations 6.0% (176), Preterm Low Birth Weight 4.8% (141), Malaria 4.7% (137), HIV/AIDS 4.2% (123), Septicaemia 4.0% (118), Protein Energy Malnutrition 3.4%(99), Pneumonia 3.2% (93), Bacterial meningitis 2.7% (79), Injuries 2.1% (61), Neonatal Jaundice 2.1% (61), Rheumatic Heart Disease 1.8% (54), Tuberculosis 1.6% (49), Tetanus 1.5% (42), Diarrhoea disease 1.4% (41), Meconium Aspiration Syndrome 1.3% (38), Intestinal Obstruction 1.3% (38), Burns 1.2% (35)

Conclusion: Infections and Newborn related deaths accounted for two-third of total childhood deaths. Highly impactful interventions in maternal and child health should be implemented.

Author declares no conflict of interest.

Factors Influencing Health Care Seeking Behaviour in Caregivers of Children Who Present in an Out-Patient Clinic of a South-East Tertiary Center in Nigeria

Nri-Ezedi CA*, Ndukwu CI*, Ofiaeli OC*, Ulasi AE*

*Department of Paediatrics, Nnamdi Azikiwe University Teaching Hospital, Nnewi.

Email: chisomnrienedi@gmail.com

Introduction: An optimal health seeking behaviour of a caregiver is essential in the preservation of good health in any child.

Objectives: To determine the factors influencing health seeking patterns among caregivers who present with their wards to the Children's Out-Patient clinic of Nnamdi Azikiwe University Teaching Hospital, Nnewi.

Methods: A cross-sectional study that investigated the demographic and socioeconomic factors influencing health seeking behaviour among caregivers using a pre-tested modified study questionnaire.

Results: 116 subjects were recruited, of which 32 (27.6%) were males and 84 (72.4%) females (p<0.0001). The age range was 24-51 years with a mean age of 38.6 years, SD ±9.7 years. In event of ill health in their wards, 50% of participants reported seeking treatment first in a formal health care facility while 48% did not (24.7% opting for self treatment and 23.6% the patient medicine dealer). Multivariate analysis revealed significant predictors influencing visits to a formal health care to include being a Christian of the Anglican sect,

tertiary education of the father and owing a private means of transport. In contrast, age, gender, distance to the nearest health facility and use of media played no role.

Conclusion: Religion, educational status of the father and means of transport are the leading predictors influencing appropriate health seeking behaviours. This calls for a need to re-strategize in order to enhance compliance in formal health care facilities among caregivers.

Keywords: Health seeking behaviour, caregiver, NAUTH

Neonatology

Congenital rubella: a reality in Mali

Dicko-Traoré F, Diakité AA, Ouattara A, Diall H, Coulibaly O, Koné I, Maïga L, Sidibé L, Konaté D, Belco M, Sacko K, Diakité FL, Traoré F, Hamadou I, Sylla M
Department of Paediatrics, CHU Gabriel Touré,
Email: fatdickoped@gmail.com

Introduction: La vaccination contre la rubéole n'est pas incluse dans le programme élargi de vaccination au Mali et le dépistage pendant la grossesse n'est pas systématique. Notre travail avait pour but de déterminer la place de la rubéole congénitale chez les nouveau-nés hospitalisés pour malformations.

Neither is the rubella vaccine included in the vaccination schedule National immunization programme (*Programme élargi de vaccination, PEV*) nor its screening during pregnancy is systematic in Mali. The goal of this study was to determine the frequency of congenital rubella among inpatient newborn admitted in the department of pediatrics for malformations.

Méthodologie: Il s'est agi d'une étude transversale, descriptive qui s'est déroulée du 1^{er} octobre 2015 au 31 janvier 2016 dans le service de néonatalogie du CHU Gabriel Touré de Bamako. Tous les nouveau-nés chez qui l'hypothèse clinique de rubéole congénitale a été évoquée ont été inclus et ont bénéficié d'un test sérologique rapide de rubéole.

We conducted a descriptive, cross sectional study from October 1st, 2015 to January 31st, 2016 in the department of neonatology at the University hospital Gabriel Touré in Bamako, Mali. All newborns suspected of congenital rubella clinically were recruited to our study and benefited from a rapid rubella serum testing.

Résultats: Quatre vingt trois nouveau-nés ont été admis pour malformations pendant la période de l'étude. Chez 52, l'hypothèse clinique de rubéole a été évoquée et 50 ont bénéficié d'un test sérologique. Cinq tests sont revenus positifs soit 6% des malformations.

Dans les cinq cas, un syndrome de rubéole congénital a été retrouvé avec le profil épidémiologique-clinique suivant : âge maternel moyen de 24 ans, grossesse non ou mal suivie (100%), absence de vaccination anti-rubéolique (100%), nouveau-né de sexe féminin (100%), hypotrophie (3cas), microcéphalie (3cas), cataracte (100%), malformation cardiaque (3cas). Le diagnostic anténatal n'avait été fait chez aucun des patients.

Results : Among 83 newborns admitted for malforma-

tions during our study, 52 who were clinically suspected of rubella benefited (all except two) from the rapid rubella serum testing with five positive results. In the five cases, a congenital rubella syndrome was found with the following epidemiological and clinical profile: 24 years old as mean mother age, incomplete or absent follow up of the pregnancy (100%), no history of rubella vaccination (100%), all newborns were female and had cataract, either hypotrophy or microcephalia and/or cardiac malformation was present in three out of five cases. None of our patients has done antenatal diagnosis of rubella.

Conclusion: La rubéole est associée à 6% des malformations congénitales dans notre contexte. D'autres études de plus grande envergure devraient confirmer cette situation et suggérer l'introduction du vaccin anti-rubéolique dans le programme élargi de vaccination.

Conclusion: Rubella is associated with 6% of the congenital malformations in our context. Large studies are needed to elucidate and to confirm our findings to support a policy introducing rubella vaccination into the vaccination schedule National immunization programme.

Mots clés : Rubéole congénitale, Programme élargi de vaccination, Mali

Keywords: Congenital rubella, vaccination schedule National immunization programme, Mali

Prevalence of congenital malaria in newborns of mothers with HIV/ malaria co-infection in Benin City

Eki-udoko FE, Sadoh A, Ibadin MO, Omoigberale AI

Background: HIV infection and *Plasmodium falciparum* malaria co-infection complicate about one million pregnancies in sub-Saharan Africa yearly. Congenital malaria is known to have deleterious effects on newborns. Little is known about the effects of this co-infection on the prevalence of congenital malaria in infants delivered to this group of women. This study was carried out to determine the prevalence of congenital malaria in newborns of mothers with HIV/malaria co-infection in Benin-City.

Methods: Subjects were 162 newborns of HIV/malaria co-infected mothers. Controls were 162 newborns of HIV negative malaria infected mothers. Blood film for malaria parasites was done on cord blood and peripheral blood on days 1, 3 and 7 in the newborns. Maternal peripheral blood film for malaria parasite was done at delivery and placental tissue was obtained for confirmation of placental malaria by histology. Diagnosis of malaria in blood films was by light microscopy.

Results: The prevalence of congenital malaria in subjects (34.6%) was significantly higher than the 22.2% noted among controls (p=0.014). Profound immunosuppressive state (maternal CD4 cell count < 200 cell/mm³) was significantly associated with prevalence of congenital malaria (p=0.006)

The major predictors of the occurrence of congenital malaria among the subjects were maternal CD4 cell count < 200 cell/mm³ and placental malaria while for the

controls it was maternal placental only.

Conclusion: Babies born to HIV/malaria co-infected mothers are at increased risk for congenital malaria therefore all babies born to HIV positive mothers should be screened for congenital malaria and managed as appropriate.

Improvement of preterm survival in Lagos University Teaching Hospital post review of unit protocol

Uche Anene-Nzelu, Fajolu IB, Akintan PE, Ezeaka VC, Ezenwa BE

Neonatology/Perinatology Unit, Department of Paediatrics

Lagos University Teaching Hospital, Idi-Araba, Lagos

Introduction: Preterm deaths directly contribute 28% to neonatal deaths globally. Use of prenatal steroids, surfactant and bubble continuous positive airway pressure (CPAP) has significantly improved preterm outcome. Other factors like early feeding, use of amino acids has contributed to their improved survival.

Objective: To compare the outcome of preterm neonates admitted in the inborn neonatal unit of Lagos University Teaching Hospital pre and post revision of unit protocol for the management of preterm neonates with gestational age <34weeks.

Method: A retrospective comparative study. Data was obtained from hospital records from January 2010 to June 2013 (previous protocol) and August 2013 -June 2017 (new protocol). The protocol review added use of improvised bubble CPAP, use of intravenous amino acids and early enteral feeding with expressed breast milk to existing practice such as provision of extra warmth with Kangaroo mother care and treatment of infections.

Results: There were 286 and 376 preterm admissions with gestational age <34 weeks pre (January 2010 to June 2013) and post protocol review (August 2013 – June 2017) respectively. Twenty-one babies were excluded for incomplete data. There was a significantly lower preterm mortality in the post protocol review period compared to the preceding period -32.4% and 42.4% respectively (p=0.01). Early neonatal deaths in the pre-and post-revision periods were 90.8% and 67.2% respectively (p=0.00). Majority of the deaths were in extreme preterm neonates.

Conclusion: In resource-poor countries like Nigeria, adapting protocols and using appropriate technology can tremendously improve the outcome of preterm neonates.

Keywords: Preterm survival; management protocol

Survival of Extreme Preterm Neonates in a Tertiary Hospital in South West Nigeria

Fajolu IB,⁺ Akintan PN,⁺ Ezenwa BN,*⁺ Ezeaka VC*⁺*

**Department of Paediatrics, College of Medicine, University of Lagos, Idi-Araba, Lagos.*

⁺Department of Paediatrics, Lagos University Teaching Hospital, Idi-Araba, Lagos.

Email: iretifaj@yahoo.co.uk

Background: Guidelines regarding resuscitation of extreme preterm neonates (delivered before 28 weeks gestational age (G.A) and their survival vary from country to country. This group of babies also contributes significantly to neonatal, infant and overall under-five mortality. Age of viability is still regarded by many health-care providers in Nigeria as 28 weeks G.A and deliveries before this are considered as abortions. Improved survival of these babies has been documented over the years in more developed countries. Documentation of the current survival rate of this group of babies is thus important to help develop guidelines for their management and revisit the age of viability.

Objective: To document survival and factors associated with mortality in extreme preterm infants admitted in a tertiary hospital in south West Nigeria.

Subject and Methods: A retrospective review of delivery and admissions records of extreme preterm neonates delivered at 24 weeks to 27 weeks+6 days G.A and admitted in the neonatal unit of the hospital. Data obtained included G.A, mode of delivery, birth-weight, outcome and duration of admission.

Results: Eighty six (2.75%) of the 3125 admissions during the study period were extreme preterm neonates; twenty six (30.2%) of extreme preterm neonates survived. Forty seven of these deaths (78.4%) were early neonatal deaths. Factors significantly associated with mortality were low birth weight, booking status, low G.A and short duration of admission.

Conclusion: Extreme preterm neonates have a moderate chance of survival in Nigeria and age of viability should be revisited.

Keywords: Extreme preterm; survival, age of viability.

Neonatal deaths in north east Nigeria: 15 years tale from a tertiary hospital

Isaac WE¹, Jalo I¹, Alkali Y¹, Ghidazuka Y¹, Ajani A¹, Girbo A¹, Iliya A¹, Oyeniyi C¹, Lano M¹, Popoola A¹, Ebisike K¹, Wariri O¹, Aliu R¹, Raymond M¹, Ndubuisi V¹, Bakari H¹, Umar A¹, Olatoke L¹, Burak V¹, Hassan K¹, Richard E¹, Tukur H¹, Rabo Y¹, Ezra D¹, Bakura H¹, Daniel A¹, Mshelia YS², Apollos M²

¹Department of Paediatrics, ²Department of Health Records, Federal Teaching Hospital, Gombe

Introduction: Nigeria's neonatal mortality rate is one of the highest in the world. More than a quarter of the estimated 1 million children who die under the age of 5 years annually in Nigeria die during the first 28 days of life.

Aim: To determine the causes of neonatal death in a tertiary health facility

Methodology: A Retrospective study using International classification of Diseases (ICD10) based on case notes and death certificates of children who died between 2000- 2015 in the facility using simple hierarchical approach in Federal Teaching Hospital, Gombe

Results: 49.5% (1431/2888) of childhood deaths occurred in newborns. Males were 55.6% (797/1431) and 44.3% (634/1431) females. 24.5% (351/1431), 63.0% (902/1431), 7.5% (108/1431), 4.8% (70/1431) died in the first 24 hours, within 1 - 7 days, 7 - 14 and 14-28 days of life respectively. 26.3% (371/1406), 56.1% (790/1406), 11.9% (168/1406), 4.3% (61/1406) and 1.1% (16/1406) died within 24 hours of admission, 1-7 days, 7-14 days, 14-28 days and >28 days of admission. Leading primary causes of death include; Birth asphyxia 31.8% (456/1431), Low Birth Weight 16.8% (241/1431), Neonatal sepsis 11.9% (170/1431), Preterm Low Birth Weight 9.5% (136/1431), Neonatal Jaundice 3.9% (56/1431), Multiple Congenital Malformation 3.6% (52/1431), Meconium Aspiration Syndrome 2.5% (36/1431), Gastrochisis 2.0% (28/1431), Myelomeningocele 1.7% (25/1431), Intestinal Obstruction 1.6% (24/1431), Neonatal Tetanus 1.5% (21/1431), Imperforate Anus 1.1% (16/1431), Vitamin K deficiency bleeding 1.1% (16/1431), Meningitis 1.0% (14/1431), Omphalocele 0.8% (12/1431).

Conclusion: Coordinated efforts and provision of affordable and quality health care for every mother and child are top priorities in Nigeria.

Incidence and characteristics of neonatal birth injuries in Maiduguri, north-eastern Nigeria

Simon P^{1*}, Ibrahim HA¹, Bello AI¹, Abubakar GF¹, Machoko Y¹, Mustapha B¹

¹Department of Paediatrics University of Maiduguri Teaching Hospital, Maiduguri, Nigeria

*Email: simonpius2000@yahoo.co.uk

Background: Birth injury is defined as impairment of neonate's body function that occur due to mechanical forces during the process of delivery. Incidence of birth injury varies from place to place, with place of delivery, experience of birth attendants, and mode of delivery.

Objective: To determine the incidence, characteristics of birth injury in the Special Care Baby Unit of the University of Maiduguri Teaching Hospital (UMTH).

Subjects and methods: This is a prospective observational study that was conducted in a Special Care Baby Unit (SCBU) of the University of Maiduguri Teaching Hospital. The subjects were recruited between 1st January, 2016 and 31st December, 2016. Neonatal birth injury was diagnosed based on paediatrician or senior registrar examination. Demographic variables: maternal age, maternal weight, and height, reproductive and labour variables: prenatal care, parity, gestational age, presence and duration of PROM, duration of labour, type of delivery, and skill of delivery attendance, while neonatal variables, includes: neonatal age, sex, birth

weight, length, Apgar score, and type of birth injury. The treatment administered to the patients were either medical management such exchange blood transfusion in case of severe Jaundice complicating cephalhaematoma and/or simple transfusion for anaemia without complication, phototherapy, antibiotics, among others, or surgical/orthopaedic treatment in the presence of surgical injury. Statistical analysis was done using SPSS version 16 (SPSS Inc., Illinois, Chicago USA). A P-value <0.05 was considered statistically significant.

Results: Sixty one out of 1078 admitted to SCBU during the 12 months period of the study had different types of birth injuries giving an incidence of 5.7/1000 live births, $p < 0.0001$. Soft tissue injury constituted the majority accounting for 37/61 (60.7%), closely followed by subconjunctival haemorrhages 25/61 (41.0%). Severe perinatal asphyxia also constituted significant proportion of the birth injury 24/61 (39.3%). Other central nervous system (CNS) birth injuries includes facial nerve palsy and Erb's palsy 13.1% each. The commonest of the fractures was femoral bone fracture 9/61 (14.8%), followed by clavicular fracture 5/61 (8.2%). It was revealed that urea 2.5 mmol/L, total serum bilirubin (TSB) 12.4 μ mol/L and random blood sugar 2.6 mmol/L were deranged in those neonates with three or more birth injuries and all the three parameters were statistically significant $p < 0.05$. The common complications encountered in these patients were jaundice, anaemia and sepsis though were not statistically significant $P > 0.05$. Four patients died, two with internal organ injury were, of which one with splenic rupture and the other one with liver damage in addition to severe perinatal asphyxia died while the remaining two patients with severe perinatal asphyxia also died with mortality rate of 6.6%.

Conclusion: The incidence of birth injury has decreased overtime especially in the affluent economy where obstetric and perinatal diagnosis has remarkably improved, but in the developing economy like ours as demonstrated in this study such an improvement is yet to be achieved. However, education of the general populace especially the pregnant women so that they attend antenatal care and deliver at health facility with skilled health personnel will remarkably reduce birth injury.

Perinatal Asphyxia in University of Abuja Teaching Hospital: A 3-year Retrospective study

Olateju K, Onalo R

Neonatal Unit, Department of Paediatric, University of Abuja Teaching Hospital, Gwagwalada, Abuja

Email: oeyinade@yahoo.com

Background: Perinatal asphyxia, a common neonatal condition in resource-constrained countries, contributes significantly to neonatal morbidity and mortality.

Objective: To determine the prevalence and outcome of babies admitted with perinatal asphyxia.

Methods: Medical records of babies admitted with Apgar scores of 6 and below or inability to cry at birth between 2011 and 2013 were retrieved. Relevant information extracted included age at presentation, gender, place

of birth, gestational age, obstetric complications and outcome of management at discharge, at 3 months and at 6 months of life.

Results: There were 191 babies with documented evidence of moderate to severe asphyxia over the study period, 110(57.6%) were males, 81(42.4%) were females, 134 were inborn and 57 were out born. 152 presented within 24 hours of life, 80 of whom were admitted within 1hour. Total hospital delivery was 6,036, giving a hospital prevalence of 22 per 1000 live births. Complications while on admission were metabolic acidosis (72), anaemia (18), acute kidney injury (1) and asphyxia cardiomyopathy (1). At discharge, 123 were normal, 29 had residual hypotonia while 34(17.8%) died. At 3months of life, 10 had evolving cerebral palsy while at 6months, 8 had cerebral palsy, 2 were deaf and 1 had visual impairment.

Conclusion: Perinatal asphyxia remains a significant cause of neonatal morbidity and mortality in this environment. Neurologic deficit is the most common long-term sequelae. Measures at limiting these complications are recommended.

Correlation between transcutaneous bilirubin (TcB) and total serum bilirubin (TSB) in term Nigerian neonates with jaundice.

Lawan MT, Audu LI, Mukhtar-Yola M, Shatima DR

Background: Total serum bilirubin (TSB) measurement is the objective means of assessing severity of neonatal jaundice, however, it involves bloodletting. Transcutaneous bilirubin (TcB) measurement is a non-invasive reliable alternative. There is paucity of data on the performance of TcB, measured with JM-103, in term Nigerian neonates.

Objectives: To determine the correlation between TcB and TSB in term Nigerian neonates.

Methodology: Consecutive jaundiced babies were recruited at the National Hospital, Abuja. Using JM-103, TcB levels were measured within 5 minutes of blood sampling for TSB. The TSB was measured by diazo method.

Results: Four hundred and sixty pairs of TSB and TcB were obtained from 297 neonates, aged 1-14 days. The mean age, gestational age and birth weight were 4.2 (2.1) days, 38.3 (1.1) weeks and 3.2 (0.5) Kg respectively. There were 169 (56.9%) males and 126 (43.1%) females. The mean of TcB of 205.2 (53.4) $\mu\text{mol/L}$ was higher than the mean of TSB of 201.0 (55.9) $\mu\text{mol/L}$, although the difference was not statistically significant ($p = 0.244$). The correlation coefficient (r) between TcB and TSB was 0.89.

Conclusion: Transcutaneous bilirubin strongly correlated with total serum bilirubin in term Nigerian neonates.

Knowledge of health professionals on newborns' intensive care in health district centers in Bamako, Mali

Dicko-Traoré F¹, Sylla M¹, Diakitè AA¹, Traoré Y², Diall H, Coulibaly O¹, Sidibé L¹, Hamadou I¹, Maïga L¹, Sacko M¹, Traoré K¹, Sagara S¹, Sidibé T¹, Keita MM¹
¹Département de pédiatrie, CHU Gabriel Touré, Bamako

²Département de gynécologie-obstétrique, CHU Gabriel Touré, Bamako

Email: fatdickoped@gmail.com,

Objective: In this study, we aimed to evaluate the knowledge level of the health professionals on newborns' intensive care.

Material and Methods: We interviewed 474 health professionals about newborns' intensive care at the six health district centers and the university hospital Gabriel Touré from March 20th to April 20th, 2016.

Among 474 interviewees, the sex ratio was 0.52; about 70% were from a department of gynecology and obstetrics in Bamako and 41.4% had no training on newborns' intensive care. Eighty nine percent (89%) of the interviewees regardless of their background considered a low APGAR score as an indication of intensive care ($p=0.1583$). Among 54% of those who had a good aspiration technique, nurses and mid-wives at the district health centers were the best ($p=10^{-4}$). The indication and rhythm of assisted respiration were known to 30.2% and 16% of the interviewees, respectively; About assisted respiration, 34% thought oxygen should be delivered systematically and the lowest level of knowledge on was among the general physicians ($p=0.0063$ for the indication of oxygen and $p=10^{-4}$ for its technique). Among the 28.5% who knew best the indication of adrenaline, pediatricians and OBG specialists had the best scores ($p=10^{-4}$).

Conclusion: The knowledge level of the health professionals on newborns' intensive care is low in Bamako. Additional studies are necessary to determine the causes to guide the training strategy on the care to newborns.

Keywords: Intensive care, newborn, knowledge, Bamako

Audit of the documentation of admission clerkings into special care baby unit of Usmanu Danfodiyo University Teaching Hospital, Sokoto

Adamu A¹, Isezuo KO¹, Onankpa BO¹, Mohammad A², Ibitoye PK¹, Ugege MO¹, Jiya FB¹

Department of Paediatrics, Usmanu Danfodiyo University Teaching Hospital, Sokoto.

Department of pharmacology, Usmanu Danfodiyo University, Sokoto.

Email: nanadamu@gmail.com

Background: Medical record is valuable for research, audit and medico legal purpose but its primary function is for patient care. Omissions in doctors clerking can lead to multiple errors. Majority of hospitals in Nigeria

have limited resources and cannot afford electronic medical recording, therefore there is need to maintain the quality of existing hand written records.

Objective: To assess the omissions in doctors clerking of neonates admitted into Special Care Baby Unit (SCBU) of Usmanu Danfodiyo University Teaching Hospital, Sokoto.

Method: This 4-month prospective study reviewed admission records by different cadre of doctors into the SCBU from 1st February to 31st May 2015. A preformed checklist was used to assess the clerkings. The type and percentages of missing data were noted. Data was analysed using SPSS version 20.

Result: One hundred and sixty clerkings were reviewed. There was no identity of the admitting doctor seen in 35 (21.9%). Date of consultation was documented in 150 (93.7%) but no time of consultation in 37(23.1%). one hundred and forty two (88.8%) had the patients name written in full on the first page, but no patients name and page numbering on subsequent pages in 110(68.8%) and 135(84.4%) of clerkings. Address and age of patients were not documented in 95(54.4%) and 55(34.4%) of the medical notes respectively. Omitted examination findings included weight 16(10.0%), length 30(17.5%), gestational age 77(48.1%), respiratory rate 18(11.3%) and heart rate 16(10.0%).

Conclusions/ Recommendation: The study revealed suboptimal clerking and documentation by doctors, we recommend the introduction of a standard clerking template, electronic clerking template and recording device to minimise clerking omissions.

Key Words: clerking, documentation, doctors, omissions, SCBU, Sokoto.

Bacteria isolates and respective antibiotic sensitivities in neonatal sepsis at the national hospital Abuja

Kefas JG, Audu LI, Ogala WN, Iregbu KC, Otuneye AT, Mairami AB, Mukhtar MY, Obaro SK.

Email: daujibir@gmail.com

Background: Neonatal sepsis remains prevalent, and currently causes 30–50% of neonatal deaths. Correct and timely identification of infectious agents of neonatal sepsis, as well as their respective antibiotic sensitivity patterns are essential to guide empirical and definitive antibiotics therapy.

Aim: To identify bacterial pathogens causing neonatal sepsis at the National Hospital, Abuja (NHA) as well as determine their respective antibiotic sensitivities.

Methods: Two hundred and ten babies were recruited consecutively over a six-month period at the neonatal unit of NHA, blood samples taken for blood culture, as well as full blood count and micro Erythrocyte Sedimentation Rates. Blood culture samples were analyzed using the BACTEC – 9050 automated blood culture system, microbiological study to identify the organisms as well as determining their respective antibiotic sensitivities were performed. In addition, where indicated, other body fluids were taken for microbiological analysis. The data was analyzed using SPSS version 18, and vari-

ables were tested using Chi– Square and Fisher’s exact tests.

Results: Two hundred and ten babies were recruited, this comprised 117 (55.7%) males and 93 (44.3%) females, giving male to female ratio of 1.3:1. In-born babies were 69 (32.9%), while 141 (67.1%) were out-born. There were 79 (37.6%) preterms, 124 (59.1%) term and 7 (3.3%) post-term babies. Out of the 210 blood cultures studied, 102 yielded positive growth of bacterial agents giving an overall isolation rate of culture proven sepsis as 48.6%.

The predominant bacteria isolates were *Staphylococcus aureus* in 48 (47.1%) and *Klebsiella pneumoniae* 25 (25.5%). Others included, *Pseudomonas aeruginosa* 13 (12.7%), *Escherichia coli* 8 (7.8%) and *Enterococcus faecalis* 4 (3.9%). The frequently isolated bacteria in both early onset and late onset neonatal sepsis were *Staphylococcus aureus* and *Klebsiella pneumoniae*. *Staphylococcus aureus* was highly sensitive to meropenem and cefuroxime, while *Klebsiella pneumoniae* to amikacin as well as meropenem.

Conclusion: Commonest bacteria isolates in neonatal sepsis at NHA were *Staphylococcus aureus* and *Klebsiella pneumoniae* and a combination therapy with cefuroxime and amikacin or monotherapy with meropenem are recommended for the treatment of neonatal sepsis at the National Hospital Abuja.

Key words: Neonates, sepsis, bacteria isolates, antibiotic sensitivities, national hospital Abuja.

Comparative outcome of intervention in severe neonatal jaundice using total body phototherapy application

Amadi HO^{1,3,5}, Mohammed IL², Abdullahi R³, Ezeanosike O⁴, Olateju EK⁵, Ibekwe MU⁴, Umar S³, Okechukwu AA⁵, Bello A³

¹Imperial College London United Kingdom, ²FMC Nguru Nigeria, ³Maternal & Neonatal Hospital Minna ⁴FETH Abakaliki, ⁵UATH Gwagwalada FCT
Email: h.amadi@imperial.ac.uk

Background: Neonatal jaundice is very common among term and preterm babies in Nigeria. This constitutes a significant portion of morbidity especially amongst African neonates. Jaundice is commonly treated with the application of phototherapy whilst neonates lay supine, often with effective exposure of less than one half of the body surface. A more invasive EBT procedure is additionally executed in cases of severe jaundice. Total body exposure in phototherapy intervention is uncommon in Nigeria.

Aim: The aim of this study was to compare the effectiveness of a total body exposure technique against the conventional technique of partial exposure plus EBT.

Methods: Twenty available recent severe neonatal jaundice cases from two tertiary SCBUs across Nigeria; namely Northern-FMC. Nguru (C1) and Southern-FEHT. Abakaliki (C2), were extracted from Records and studied as Control-groups. Eleven other cases were extracted from the SCBU of Maternal-&Neonatal Hospi-

tal Minna (T) as Test-group. The method of Control-group intervention was by conventional phototherapy while that of the Test-group was by total body exposure using the Firefly phototherapy system (MTTS Asia, Hanoi Vietnam). Any additional EBT intervention was noted in the two groups. Total serum bilirubin (TSB) above 12.5 mg/dL was treated as severe. Efficiency of intervention was considered on the basis of the duration of time taken for a severe case to downgrade to mild at below 12.5 mg/dL.

Results: Averages were: Neonate's postnatal age in days for T-group was 5 ± 1 ($C1=5 \pm 4$, $C2=7 \pm 5$); GA in weeks ($T=36$, $C1=37 \pm 1$, $C2=36 \pm 4$); BW in kg ($T=2.6 \pm 0.5$, $C1=2.9 \pm 0.4$, $C2=2.8 \pm 0.9$). Pre-intervention TSB ($T=19 \pm 4$, range 13-25; $C1=24 \pm 11$, range 14-35; $C2=18 \pm 3$, range 13-21). Intervention duration in days ($T=3 \pm 1$, $C1=6 \pm 4$, $C2=4 \pm 2$). Fraction given EBT-intervention ($T=0\%$, $C1=100\%$, $C2=71\%$).

Conclusion/Recommendation: Total body exposure was quicker and safer and rarely required the extreme invasive measure of EBT. This technique is recommended for rapid reduction of neonatal morbidity in Nigeria due to jaundice.

Bilateral Congenital Anophthalmia And Congenital Heart Disease in a Child with Family History of Consanguinity and Anophthalmia Seen at a Tertiary Hospital in Sokoto, North western Nigeria

*Isezuo KO, Sani UM, Waziri UM, Garba BI, Hano IJ
Department of Paediatrics, Usmanu Danfodiyo
University Teaching Hospital, Sokoto, Nigeria*

Background: Congenital anophthalmia is unilateral or bilateral absence of the eyeball. It is rare with a prevalence of 3 per 100,000 births. It is associated with congenital heart disease (CHD) and consanguinity. This report highlights a case of anophthalmia and CHD, with significant family history of consanguinity and multiple cases of anophthalmia in first degree relatives.

Case report: A 5-year old boy presented to the cardiac clinic with history of recurrent cough and fast breathing since infancy. He also had absence of the eyes since birth which was confirmed by computed tomography (CT) scan. Family history revealed there were 6 cases of anophthalmia amongst his first cousins who were all products of second degree consanguineous unions. He also had bilaterally undescended testes and microcephaly. Echocardiography revealed a large size patent ductus arteriosus. He had surgery in a referral centre and has done well since discharge. Family was counselled on the problems and the risk of recurrence of these defects in other children with practice of consanguinity.

Conclusion: This report highlights the importance of genetic counselling and discouraging consanguinity in such families and the community to prevent a devastating problem such as anophthalmia which may occur with other defects.

Key words: Anophthalmia, consanguinity, CHD, Sokoto, Nigeria

An Uncommon Neonatal Exanthem: Disseminated Neonatal Varicella (Chickenpox)

Hassan L, Adewumi OA, Abdullahi FL, Abdulkadir I, Ogala WN.

Neonatal unit, Department of Paediatrics, Ahmadu Bello University Teaching Hospital, Zaria, Kaduna State.

Email: elteehassan@yahoo.com.

Introduction: Active maternal varicella infection with Varicella Zoster virus during the last 3 weeks of pregnancy or within the first few days postpartum may result in severe congenital neonatal chickenpox. Although not a common cause of perinatal infections with an incidence of 0.7/100,000 live births, outcome could be poor with a case fatality of 30-50%.

Objective: To highlight this rare condition in the newborn, the first of such in our centre and bring to the fore the management challenges.

Case report: A.M was a 12 day old male neonate referred from a peripheral hospital on account of a 3 day history of fever, 2 days of generalized body rash, fast breathing, cough, abdominal distension and inability to suckle of a day's duration. Pregnancy was essentially uneventful up until 3 days prior to delivery when mother developed a high grade fever and intrapartum, a rash manifested a few hours to delivery. On examination, he was acutely critically ill, with generalized macula, papulovesicular, some crusted rashes in various stages of eruption and crusting, hypothermic (30°C), and features of severe bronchopneumonia. A clinical diagnosis of Congenital neonatal varicella infection was made and he was managed supportively whilst efforts were made to procure varicella zoster immunoglobulin (VariZIG) or intravenous immune globulin (IVIG) and Acyclovir. Full blood count showed - PCV = 43.6 L/L, leucocytosis of $25 \times 10^9/\text{L}$. with differentials of neutrophils 53.9%, lymphocytes of 37.5% and normal platelet count. Blood film showed features of haemolysis. No organism was isolated on blood culture. Viral cultures could not be done. He developed bleeding from orifices and petechia which was considered due to disseminated intravascular coagulopathy and persisting hypothermia despite adequate rewarming methods and succumbed to his illness nine hours into the course of admission before the recommended medications could be procured and commenced.

Conclusion and Recommendations: Disseminated congenital varicella infection can be uniformly fatal especially in the presence of active maternal chickenpox five days before to 2 days after delivery as occurred in this case. This highlights the need adequate measure to expedite clinical and laboratory diagnosis and the availability of VariZIG, IVIG and parenteral acyclovir.

Morbidity and mortality pattern among preterm babies admitted into the Special Care Baby Unit of University of Port Harcourt Teaching Hospital, Rivers State: A 5-year Review

Eneh A, Opara P, Briggs D, Okpani M

Background: About 45% of deaths among under-fives occur during the neonatal period with a high contribution from preterm deaths. Regular evaluation of preterm deaths is important as patterns and therefore intervention may vary at different times and places.

Objectives: To determine the morbidity and mortality pattern of preterm babies admitted into the Special Care Baby Unit (SCBU) of the University of Port Harcourt Teaching Hospital (UPTH), over a 5-year period.

Methods: This was a retrospective review of data of preterm babies admitted into the SCBU from 2012 – 2016. Information obtained included biodata, morbidities, duration of admission and outcomes. Data were collated and analyzed using SPSS v20 for windows.

Results: 3,071 babies were admitted in SCBU over the period, of which 683 (22.2%) were preterms. Of these, 421 (61.6%) were inborn while 262 (38.4%) were outborn. The male: female ratio was 0.9:1. Morbidity patterns varied with birth asphyxia (20%) ranking highest among inborns while sepsis (21%) and neonatal jaundice (15%) were more prominent in outborns. The overall preterm mortality rate was 24.6 % with rates being significantly higher in outborns 30.5% versus inborns 20.9% ($p=0.0059$). Mortality was highest among low birth weight preterms. Admission rates decreased steadily over the period.

Conclusion: Birth asphyxia and sepsis were the main morbidities recorded. Mortality rates were higher among outborns. Low birth weight preterms were most affected because they were in the majority. There was a steady decline in admission rates. Improving obstetric care, neonatal resuscitation, infrastructure and subsidizing healthcare services for preterms is needful.

Aplasia Cutis congenita in a newborn seen at Usman Danfodiyo University Teaching Hospital, Sokoto

Onankpa B¹, Adamu A¹, Jega MR¹, Mohammed J², Tahir AA¹, Yusuf A¹, Mohammed H¹

Department of Pediatrics, Usmanu Danfodiyo University Teaching Hospital, Sokoto

Dermatology Unit, Department of internal medicine, Usmanu Danfodiyo University Teaching Hospital, Sokoto.

Email: nanadamu@gmail.com

Introduction: Aplasia cutis congenital (ACC) is rare dermatological condition characterized by the absence of skin at birth. The lesion may affect the epidermis, dermis and subcutaneous tissue and can progress to involve the muscle, bone and other structures such as the dura. The scalp is most frequently affected in approximately 90 percent of cases, but can be found in other parts of the body. Though it has a global incidence of 1

in 10,000 live births, this is the first case in literature reported from Sokoto, North western Nigeria.

Case report: ZM a female neonate delivered by a 21-year-old P₃₊₀ mother who received ante-natal care at a secondary health center. Pregnancy was uneventful and a normal obstetric scan was seen in the third trimester. She presented to our facility at 16 hours of life on account of absence of skin on both lower limbs noticed at birth. She appeared pink, a febrile, with bilaterally symmetric absence of skin tissue on the antero-medial surface of both lower extremities extending from the knees to the feet. She had no scalp lesion or bullae, nor any dysmorphic features. Other examination findings were normal. Blood culture, swab MCS of the skin defect yielded no bacterial growth and hematological investigations were normal. A diagnosis of Frieden type VII aplasia cutis congenita was made and followed up with multidisciplinary management using eusol, povidone-iodine dressing, and parenteral antibiotics. Restoration of skin tissue was noticed 2 weeks later. However, in the subsequent weeks ZM was lost to follow up.

Conclusion: ACC though rare, needs proper diagnosis and multidisciplinary approach in management.

Keywords: Aplasia Cutis Congenita, Newborn, Frieden classification

Higher order multiple births in Nigeria: The experience, challenges and neonatal outcome as seen at a private health facility in Nigeria

Ezenwa B¹, Oseni Olatokunbo¹, Akintan Patricia², Aliqwekwe Patricia¹, Chukwukelu Blessing⁴, Fashola Olayinka³, Ogunmokun Adegbite³, Odukoya Olusegun³

¹Department of Paediatrics, The Eko Hospital

²Department of Paediatrics, LUTH

³Department of Obstetrics & Gynaecology, The Eko Hospital

⁴Department of Family Medicine, The Eko Hospital

Objectives: This study aims to describe the experience and outcome of higher order multiple (HOM) births in a private tertiary health facility in Nigeria

Methodology: This was a retrospective review of records of HOM over a period of 3 years in a private tertiary health facility in Nigeria. Relevant data on HOM births were extracted from both the patients' case notes, admission registers and maternity ward and delivery records of the hospital using a predesigned proforma. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 22.0.

Results: The prevalence of HOM births was 0.72% of 1950 births over the 3 year study period; while for Triplets, Quadruplets and Quintuplets was 0.56%, 0.1% and 0.05% respectively. The mean gestational age was 32 ±3weeks and all except 3 sets of triplets were by Assisted Reproductive Technology (ART). Respiratory distress syndrome, neonatal jaundice and neonatal sepsis accounted for more than 80% of the neonatal complications noted in HOM births. However, there was no sig-

nificant difference between neonatal survival of HOM as compared to twin deliveries, $p = 0.08$.

Conclusion: HOM is becoming increasingly common in Nigeria. The strongest risk factor is ART and neonatal complications are common reinforcing the need to streamline ART protocols in Nigeria.

Key words: Higher Order Multiple births; Private Health Facility; Neonatal Outcome; Nigeria

Invasive Candidiasis in a Neonatal Intensive Care Unit in Lagos Nigeria

Ezenwa BN^a, Oladele RO^b, Akintan PE^a, Fajolu IB^a, Oshun PO^b, Oduyebo OO^b, Ezeaka VC^a

Department of Paediatrics, Lagos University Teaching Hospital, Lagos, Nigeria

^bDepartment of Medical Microbiology and Parasitology, Lagos University Teaching Hospital, Lagos, Nigeria

Email: beatriceezenwa@yahoo.com

Background: Invasive candidiasis has been identified globally as a major cause of morbidity and mortality in neonatal intensive care units (NICU). Systemic candidiasis presents like bacterial sepsis and can involve multiple organs.

Objective: To determine the prevalence of *candida* infection in a NICU in a tertiary hospital in Nigeria and to identify its associated risk factor.

Methodology: The study was a retrospective descriptive study of all cases of culture-proven invasive *candida* infection in neonates admitted to the NICU over a four-year period. Study participants were identified from microbiology records of all neonates with a positive *candida* culture. Medical records of identified neonates were also reviewed, and relevant information obtained.

Results: Over the four years, 2,712 newborns were admitted into the NICU. From these, 1182 various clinical samples were collected from babies with features of sepsis and processed in the Medical microbiology laboratory. Twenty-seven (2.3%) of the cultures yielded *Candida* organisms; fifteen of the *candida* cultures were from male infants with a male: female ratio of 1.3: 1. Blood stream infection was the most frequent ICI seen in preterm babies (seven [58.3%] out of 12 babies with ICI). Nearly all (91.7%) affected preterm infants with ICI were less than 1500g in weight. All were exposed to invasive procedures, and broad-spectrum antibiotics. The case fatality rate among those with ICI was 18.5%.

Conclusion: There is a significant prevalence of invasive candidiasis in high risk newborns and the incidence increases with increased practices in risk factors such as invasive procedures and antibiotic use and in lower gestational age babies with VLBW

Key words: Invasive *candida* infection; neonates; risk factors; NICU, Nigeria

Measurement of Photo Irradiance: Comparative Analysis of Radiometer Readings of various Phototherapy units in a Tertiary Centre in Lagos Nigeria.

Akintan P¹, Fajolu Iretiola², Ezenwa B², Ezeaka C²

¹Department of Paediatrics Lagos University Teaching Hospital Idi araba, Lagos Nigeria

²Department of Paediatrics, University of Lagos Nigeria.

Email: akintanpatricia@yahoo.com

Background: Neonatal jaundice is a common problem in the new-born with devastating consequence if not properly treated. Early and effective Phototherapy is important to prevent progression to severe disease. One of the key factors of effective phototherapy is the irradiance of the unit which is affected by many factors. The objective of this study was to determine the irradiance of phototherapy units used in a Nigerian hospital and factors affecting it.

Method: Irradiance of the phototherapy units were measured at various distance and at different parts of the baby's body. The included lamps were the convectional and locally fabricated units with blue and white fluorescents bulbs, fabricated, fibre optic pad and the light emitting diode (LED). The mean irradiance of the different lamps were compared at different distance from the location of the baby. Student T test and the person correlation coefficient were used to test for significance and association between various factor affecting irradiance.

Result: The irradiance at the baby's position was at least 10 uW/ cm²/nm for 79% of the phototherapy units, while 37.5% delivered irradiance in the intensive phototherapy range(30 uW/ cm²/nm). The irradiance was highest in the LED and lowest in the locally fabricated units. The irradiance increases with the reduction in the distance from the lamps and at the centre compared to the periphery.

Conclusion: The type of light source, position and distance from the light are important factors to consider for improving irradiance during phototherapy in neonatal jaundice.

Keywords: Jaundice, New-born. Phototherapy, Light emitting diode, Irradiance.

Features of Locally Fabricated Phototherapy Devices

Abdulkadir I, Lawal S¹ Adebisi NM, Slusher TM²

Vreman HJ³, Ogala WN

Neonatal Unit, Department of Paediatrics, Ahmadu Bello University/ Teaching Hospital Zaria, Kaduna State, Nigeria.

¹Department of Chemical Engineering Kaduna Polytechnic, Kaduna State Nigeria

²Department of Pediatrics, University of Minnesota & Hennepin County Medical Center, Minneapolis, MN 55415, USA

³Neonatal & Developmental Medicine Laboratory, Division of Neonatology, Department of Pediatrics, Stanford University Medical Center, Stanford, CA94305-5208, USA

Email: isaburamla@yahoo.com; isaabdulkadir@abu.edu.ng

Background: Efficient phototherapy (PT) continues to elude most health facilities in low- and medium income countries (LMICs) due to the cost of PT devices and lack of reliable electricity. In Nigeria pockets of isolated efforts have gone into local fabrication of devices for use.

Objective: To highlight features of locally fabricated PT (FPT) devices in Nigeria.

Materials and Methods: Phototherapy devices in use in Kaduna state were surveyed. The structural as well as clinically important features of each PT device were documented including mobility/ portability, adjustability, types, number and colour of lamps used. Irradiance was measured using Olympic BiliMeter™ model 22.

Results: Thirty-two (59.3%) of the 54 PT devices in use were locally fabricated while the remaining were commercial, imported devices. Of the 32 FPT devices, 14 (43.8%) were immobile wall mounted and non-portable. Twenty two {22/32 (68.8%)} were fixed and non-adjustable. Only 5/32 (15.6%) of the FPT devices used special blue fluorescent lights. None of the devices used light emitting diodes (LED) as light source. Only 3 fabricated devices offered irradiance (9.4, 13.6 and 33 $\mu\text{W}/\text{cm}^2/\text{nm}$) at least sufficient for conventional PT at the facilities' traditional distances for PT which ranged from 40 – 70 cm.

Conclusions: Fabricated PT devices in use in Kaduna, Nigeria, have features which make them deliver clinically sub optimal PT. The devices will need redesign and modifications specifically in areas of adjustability to vary distance and the use of lamps which emit light with increased irradiance.

Recommendation: Local fabrication of PT devices should be encouraged however; qualities which enhance optimal performance of PT devices should be incorporated into the fabrication designs.

Keywords: Phototherapy, neonatal jaundice, newborn care, kernicterus, devices.

Neonatal blood transfusions: Prevalence, pattern and recipient's characteristics as seen at Ahmadu Bello University Teaching Hospital, Northwest, Nigeria

Abdulkadir I, Musa S, Onadiran MA, Hassan L

Abdullahi FL, Aminu SM¹, Ogala WN

Neonatal Unit, Department of Paediatrics, Ahmadu Bello University Teaching Hospital Zaria, Kaduna State, Nigeria.

¹Department of haematology, Ahmadu Bello University Teaching Hospital Zaria, Kaduna State, Nigeria.

Email: isaburamla@yahoo.com,

isaabdulkadir@abu.edu.ng

Background/ Introduction: Blood transfusion is a procedure of replacing blood volume and or specific blood components. In Nigeria, prematurity, neonatal jaundice and neonatal sepsis, the most common reasons for neo-

natal admissions, are almost invariably accompanied by the need for some form of blood transfusion. Blood transfusion, thus, remains a key day-to-day practice of neonatology, the audit of which is necessary for planning and improved practice and outcome. The study sought to, for the first time, find the prevalence, pattern, and characteristics of the neonates receiving blood transfusion either as top up or exchange at the neonatal care unit of ABUTH, Shika-Zaria.

Methods: This was a prospective study of neonates receiving transfusion from September 2016 to February 2017.

Results: A total of 309 neonates were admitted during the six months study period out of which 101 received at least one form of blood transfusion, giving a 33% prevalence rate of blood transfusion. There were more simple blood transfusions (61.4%), compared with exchange blood transfusions (38.6%). Majority (79.2%) of the transfused neonates received transfusion within the first week of life (0-7 days). More males (M:F ratio 2:1) and slightly higher proportions of term (T) neonates (Term vs Preterm : 50.5% vs 46.5%) received transfusion. Majority were of normal birth weight (51.5%), with 1% being macrosomic, the remaining 47.5% belonged to one or the other category of low birth weight. Blood group O⁺ve was the most common (46.5%) blood group among the transfused babies.

Conclusion/ Recommendations: The high rate of blood transfusion in the neonatal unit underscores the need for efficient blood banking and other transfusion services.

Key word: blood transfusions, neonates, prevalence, pattern, characteristics.

Levels of Neonatal Care in Kaduna State

Abdulkadir I, Adebisi NM, Adeoye G, Ogala WN

Neonatal Unit, Department of Paediatrics, Ahmadu Bello University Teaching Hospital Zaria, Kaduna State, Nigeria.

Email: isaburamla@yahoo.com,

isaabdulkadir@abu.edu.ng

Background: Neonatal medicine is a specialized aspect of paediatrics. Availability of newborn units which provide comprehensive neonatal services are an essential integral component of hospital services which guarantees/ assures improved newborn health and survival. In the structure of our health care system in Nigeria, neonatal units are meant to be component units of secondary and tertiary health facilities.

Objective: The study aimed at determining the availability of neonatal units and level of care services in Kaduna state, Northwestern Nigeria.

Materials and Methods: The study was a survey of all hospitals in Kaduna state including public and non-government facilities. Information on availability of newborn unit, staffing, and equipment were obtained and units were categorized into levels of care.

Results: A total of 33 public non – primary health care facilities and 25 non- government specialist facilities operated in the state. Only 2 (one each state and federal

owned) of the 33 public facilities, both of which were tertiary health care facilities had operational neonatal units while 15 of the 25 specialist non-government facilities operated neonatal units. All the neonatal units were of level I category except for the federal owned public facility which was of level III category and the state owned public facility which was of level II category.

Conclusions: to improve neonatal care, more effort needs to go into improving the quality of our neonatal units and this should begin with having a national policy on minimal standards for neonatal care units.

Keywords: Neonatal unit, neonatal intensive care, special care baby unit, neonatal medicine.

Physical Injuries in the neonatal period - An aftermath of harmful traditional practices

Mokwenyei O, Ezenwa B, Fajolu I, Akintan P, Ezeaka C

Harmful traditional practices in the newborn period are those practices and customs that have bad effects on a newborn's health and may prevent the newborn from achieving its normal growth potential and development. The practices are usually well intentioned, but misguided and misinformed. We present two neonatal victims of unintentional physical injuries inflicted by caregivers resulting in severe morbidities and highlight the need to eradicate these deleterious practices and replace them with evidence-based newborn care practices.

Baby OM an 11-day old term female neonate presented on account of a spreading cellulitis of the left breast area and fever which started following the traditional practice of hot water massaging of newborn breasts and expression of witches milk which the mother's aunty had been practicing on the baby since the fourth day of life. A diagnosis of necrotizing fasciitis of the left hemithorax secondary to neonatal mastitis of the left breast was made and child admitted for intravenous antibiotics. Baby NB was a 6-week-old term female infant who presented on account of huge ulcers on both buttocks. Baby was noticed to have developed progressively increasing swellings on both buttocks on the 8th day of life which subsequently ruptured and drained purulent discharge. There was no history of fever but there was a positive history of spanking of buttocks with bruises at birth during resuscitation, as patient did not cry at birth. An assessment of bilateral gluteal ulcers secondary to gluteal subcutaneous fat necrosis was made. She was admitted and co-managed with the Burns and Plastic Surgical unit.

Traditional practices inflicting injuries on the newborns are prevalent in our environment. There is need to expose and eradicate these deleterious practices. All hands need to be on deck to promote, educate and empower mothers and caregivers on the best newborn practices to imbibe so that together we can decrease the alarming neonatal mortality and morbidity in Nigeria.

Key words: Harmful traditional practices, newborn, Nigeria

The frugal politeheart bubble CPAP machine – Design, characterisation and comparisons

Amadi HO^{1,3,4}, Okonkwo IR², Abioye IO³, Olateju EK⁴, Umar S³, Okechukwu AA⁴, Bello A³
¹Imperial College London United Kingdom, ²UBTH Benin-city, ³Maternal & Neonatal Hospital Minna, ⁴UATH Gwagwalada FCT.
Email: h.amadi@imperial.ac.uk

Background: Bubble continuous positive airway pressure (bCPAP) is a widely applied technique in Nigeria for sustainable neonatal respiratory support. Few commercial grade bCPAP systems are available but rarely in use across Nigerian health facilities because of their exorbitant cost. Over 90% of Nigerian SCBUs resort to the use of an Improved-bCPAP (IbCPAP) technique, notably deficient of some vital technical capabilities; hence, this may be associated some morbidities such as retinopathy of prematurity, induced neonatal hypothermia complications and poor surfactant retention among extreme preterm neonates.

Aim: The aim of this project was to devise and characterise a low-cost bCPAP system that is functionally akin to the commercial grade system and, to compare its intervention outcomes with those from the Nigerian IbCPAP.

Methods: Frugal design approach involving the deployment of generic components and assemblies was applied. The resulting system (PbCPAP), with inbuilt air compressor could blend a controllable maximum of 5L/M air flow rate with up to 5L/M oxygen flow rate for any desired Fio₂. The blended gas was filtered, humidified and supplied through a controllable warming inspiratory channel and via appropriately sized nasal cannula to the neonate. Neonate's Spo₂ was easily controllable via altering its (1) air & oxygen flow rates for new Fio₂, (2) total flow rate for new inspiratory volume flow or (3) PEEP-straw depth (in cmH₂O) for new expiratory pressure. Clinical trials were carried out using three prototypes at UBTH Benin (5 cases), UATH Abuja (7 cases) and Neonatal Hospital Minna (6 cases). Six interventions with the IbCPAP were applied as control for comparison.

Results: Neonate's BW in kg for the PbCPAP was 2.6±1.2, range 0.9-3.6; IbCPAP: 2.6±0.7, range 1.2-3.3. Average Fio₂ for intervention duration: PbCPAP=44.6%; IbCPAP=90%. The PbCPAP was efficiently controllable and took average of 6 minutes to fully achieve safe Spo₂ stabilisation at 90-95%. No neonates on PbCPAP experienced thermal instability while 100% of IbCPAP neonates remained hypothermic and needed extra intervention. There were better outcomes for the PbCPAP neonates from the three SCBUs, including a particular case of twins, each supported on either of the bCPAPs at UBTH, and followed until successful discharge from SCBU. The PbCPAP costs less than 17% of the commercial grade system.

Conclusion: Results suggest that the PbCPAP has got the choice combinations of capability, efficiency and low-cost to enable proper bCPAP intervention in Nigeria.

Case series and review of literature: Uncommon bacterial isolate causing early neonatal septicemia

Olateju EK¹, Airede A^{1,2}, Tahir I^{1,2}, Adebayo I¹.
¹ Department of Paediatrics University of Abuja Teaching Hospital, Gwagwalada, ²Department of Paediatrics, Faculty of Clinical Sciences, College of Medicine, University of Abuja, Gwagwalada, Nigeria.
 Email: oeyinade@yahoo.com

Introduction: Neonatal sepsis is a life-threatening condition, and any delay in diagnosis and treatment may follow a fulminant course. The pathogens commonly implicated in NNS differ significantly between countries, and within the same country, regional variation in prevailing organisms causing NNS exists.

Objective: To report an **uncommon** causative organism of NNS and highlight challenges in management.

Method: The case notes of all the patients were reviewed and relevant information extracted.

Results: The four neonates consist of 1 term and 3 preterms with GA of 27, 29 and 34 weeks respectively. The presenting signs and symptoms were tachypnea, respiratory distress, jaundice, temperature instability, poor oxygen saturation and bilateral eye discharge in two of them. Three of the mothers came from a rural settlement, and two of them delivered at home. Baseline laboratory investigations revealed deranged electrolytes in two patients, severe anemia warranting transfusion in one patient and blood culture yielded PANTOEA SPP in all of them. Three patients recovered following treatment with antibiotics and one died.

Conclusion: Pantoea spp is a rare pathogen in the aetiology of NNS. Early detection and proper antibiotic therapy may cause a favorable outcome.

Key words: Neonate, Sepsis, Pantoea spp.

PC

Electrocardiographic features in children with severe falciparum malaria at the University college hospital, Ibadan

Akinkunmi F¹, Ogunkunle O², Akinbami F³,
 Orimadegun A²
¹Department of Paediatrics Mother and Child Hospital Ondo
²Department of Paediatrics University College Hospital Ibadan
³Department of Paediatrics, Niger Delta University Teaching Hospital Okolobiri
 Email akinkunmifrancis@gmail.com

Introduction: Malaria accounts for 30% of childhood mortality in Nigeria. This high burden is partly due to its potential to cause multi-organ dysfunction. Cardiac involvement in malaria has been reported, but data on specific electrocardiographic features in children with malaria is rare.

Aims/Objectives: To investigate electrocardiographic features in children with severe falciparum malaria at the University College Hospital Ibadan.

Subjects and Methods: A comparative cross-sectional study of 266 children with symptomatic Plasmodium falciparum parasitaemia and 132 apparently healthy children recruited consecutively. They had physical examination and electrocardiography at presentation. Frequencies of electrocardiographic features were described and compared among the study participants.

Results: Two hundred and nine males and 189 females were studied. There were 133 cases of severe malaria, 133 with acute uncomplicated malaria and 132 controls. Prevalence of ECG abnormalities was 79.7% in severe malaria and 63.2% in acute uncomplicated malaria. There was no significant difference in ECG abnormality between genders or the socioeconomic status of study participants. Three quarters of the mortality had electrocardiographic abnormalities.

Conclusions and Recommendations: Severe malaria patients had significant ECG abnormalities. These findings underscore the need for a thorough cardiovascular examination, including an electrocardiogram for all children with severe malaria.

Keywords: Severe Malaria, Electrocardiography

Infective endocarditis in five years: A case series from federal medical centre, Abeokuta

Uzodimma C¹, Musa Y¹, Olasunkanmi O¹
 Paediatric Cardiology unit, Department of Paediatrics, Federal Medical Centre, Abeokuta.

Introduction: Diagnosis of infective endocarditis could be delayed if clinicians are not maintaining a high index of suspicion for this condition. Its relative rarity does not make it easier and neither do certain atypical presentations. Vegetations in the main pulmonary artery is rare. We report three of five cases of infective endocarditis seen at the Federal medical Centre, Abeokuta from 2013-2017.

Aims and objectives: To underscore the variations in the presentation of infective endocarditis and to sensitize clinicians to maintain a high level of vigilance for this differential diagnosis in febrile children.

Methods: Three cases of infective endocarditis are presented. The age ranges from eight to fourteen years old. The sizes of the vegetations ranged from 10mm-18mm. One case occurred in a child with underlying patent ductus arteriosus who reported fever of two days duration. A large vegetation was seen in the main pulmonary artery near the entrance of the duct. The second case had no underlying heart defect, but was being treated for sepsis. The diagnosis of infective endocarditis was delayed for over one month, making way for other differentials including juvenile rheumatoid arthritis. The vegetation was seen on the tricuspid valve. The third case was referred to our Centre after two weeks of a febrile illness, echocardiography revealed vegetations on the mitral valves.

Conclusion: Infective endocarditis still occurs. High index of suspicion is necessary to reduce delayed or missed diagnosis.

Keywords: Infective endocarditis, children, vegetations

Pattern of presentation and surgical outcomes of children presenting with vascular ring and pulmonary sling in Fortis Hospital Mumbai

Chinawa JM, Agarwal V, Garekar S, Gaikwad S, Trivedi B

Background: Vascular anomalies are rare abnormalities which present with inspiratory stridor and recurrent respiratory tract infection. The commonest of these anomalies were vascular ring and pulmonary sling.

Objectives: The objective of this study was to determine the prevalence, pattern of presentation and surgical outcomes of children presenting with vascular ring and pulmonary sling.

Methods: A cross-sectional retrospective study in which a review of the records of all children attending Fortis hospital over a 3-year period (2012- and 2015) was undertaken.

Data were analyzed using SPSS 20. Frequencies, rates and proportions were represented in tables.

Result: A total of 1200 children had open heart surgery in the hospital over a three-year period. Of these, 2 had vascular ring and 3 had pulmonary sling giving a prevalence of 0.4%. Out of the 5 cases, 3 (60 %) were male and 2 (40%) female. Male to female ratio was 1.5:1. The mean age of presentation was 2.46 ± 3.52 months. There were three neonates and two infants. All presented with stridor. The mean number of days spent postoperatively was 8 ± 3 days and tracheal stenosis was the only complication noted.

Computerized axial tomography (CT) scan of one of the subjects with vascular ring showed a dilated Kommerells diverticulum (KD).

Conclusion: Vascular ring and pulmonary sling are rare congenital abnormalities seen in our center, early identification and repair will help avert numerous complications that follow it.

Key Words: Pulmonary sling; vascular ring; tracheal stenosis; Kommerells diverticulum.

UHL'S anomaly of the right ventricle in one-year-old child requiring a transplant: A case report

Chinawa JM, Swati G, Trivedi B

Background: UHL's anomaly of the right ventricle is a rare anomaly. At present only about 84 cases have been reported in over a century.

Case presentation: We report a case of one-year old male, who presented to our out-patient pediatric cardiology clinic with a history of recurrent cough and difficulty in breathing and failure to gain weight in the preceding two months. Chest X ray showed cardiomegaly while ECG showed a normal sinus rhythm with poor right ventricular forces. Echocardiography showed severely dilated right ventricle with thinned out right ventricle wall, poor right ventricular function with severe tricuspid regurgitation. He has been placed on Aspirin, Lasilactone and Clexin. However, there were no satisfactory surgical option available and heart transplant

was recommended.

Conclusion: UHL's anomaly of the right ventricle is a very rare anomaly which defies all surgical option except transplant. Early recognition institution of drugs that improves cardiac function may improve the quality of life of the child.

Key Words: UHL anomaly; child; Mumbai; rare

PE

The Travails of Nigerian children requiring Growth Hormone Therapy

Idris HW, Mado SM, Abdullahi SM

Department of Paediatrics, Ahmadu Bello University/ Ahmadu Bello University Teaching Hospital Zaria, Nigeria

Introduction: Since 1958 growth hormone (GH) has been used as substitution treatment for children with GH deficiency.

Objective: To describe the difficulties patient with GHD and their families faced from diagnosis to treatment.

Case Report: 6 children (4males, 2females) aged between 3 and 16 years were noticed to have stopped growing between the ages of 2 and 4years. Their pregnancies were uneventful and birth weight was normal. No history of neonatal seizures, delayed passage of meconium or jaundice and no family history of short stature. They were seen in many tertiary hospitals, private clinics and spiritual homes.

Their heights were $< - 5$ SDS. Other findings includes patent fontanel (2), high pitched voice (3), microphallus/ cryptorchidism(1) and dental carries (3). Investigations revealed very low GH levels, delayed bone age, low FT4, normal TSH, thyroid USS and brain CT. Stimulation tests and genetic studies were not carried out. A diagnosis of MPHD was made in 3 and SCA with GHD (2) and isolated GHD (1).

Four were started on GHT between 6 months to 4yrs after diagnosis (sourcing for money, procurement of GH).

Two children (10 & 13yrs old) are on regular GHT, had gained 7 & 16cm in height, had exfoliated 6 teeth, the fontanel has closed and her self-esteem and school performance had improved. Four of the children couldn't sustain the therapy.

Conclusions: GHT in Nigeria is possible, but the family and physician have to bear with a lot of challenges in order to succeed.

Congenital hypothyroidism: A report of two isolated cases at National Hospital Abuja

Babaniyi IB¹, Papka NY¹, Hamza N²

National Hospital Abuja

Email: nubwayusufu@yahoo.com

Background: Congenital hypothyroidism is a disorder of thyroid gland morphogenesis. It is the commonest endocrine disorder in newborns occurring in 1:4000 to 1:3000

live births. The incidence in Nigeria has not been well documented probably due to lack of neonatal screening.

Aim/ objectives: To raise awareness of physicians to have a high index of suspicion for this treatable cause of mental retardation in children presenting with unusual symptoms.

Case presentation: Case 1 presented to our hospital at 18 months of age with a respiratory tract infection. She had delayed developmental milestones and coarse facies among other features. This prompted a work up for hypothyroidism. Thyroid function tests done showed a profoundly hypothyroid picture and she was commenced on levothyroxine.

Case 2 was referred to our facility at nine weeks of age on suspicion of a congenital heart disease. The parents had complained of dry skin to the referring physician. She had a hypothyroid profile on laboratory evaluation.

Conclusion: Congenital hypothyroidism should be suspected in children with unusual symptoms as it is a treatable cause of short stature and mental retardation. The introduction of newborn screening will go a long way in identifying the children in need of urgent thyroid replacement to prevent the negative consequences of untreated hypothyroidism.

Keywords: Congenital hypothyroidism, neonatal screening, mental retardation.

Breastfeeding practices among mothers of children aged 1 – 24months in Egor local government area of Edo state, Nigeria.

Anthony OA, Vincent AO¹, Adam Y²
¹Department of Child Health, University of Benin Teaching Hospital, Benin City, Edo State.
²Department of Community Health, University of Benin Teaching Hospital, Benin City, Edo State.
 Email: tonyatimati@yahoo.com

Background: Under nutrition contributes to about half of all the causes of child mortality in developing countries. Optimal feeding during the first 2years of life is essential for growth and development. Adequate breastfeeding of children under two years of age has the potential to prevent 1.4 million deaths in under-five children in the developing world annually. Breastfeeding practices in Nigeria are poor with regional variation due to diverse socio-cultural factors. Keeping trend of the breastfeeding practices and the associated factors at the community level is essential in promoting breastfeeding.

Objective: To determine the breastfeeding practices of mothers of children 2years and below in Egor LGA of Edo State.

Methods: It is a descriptive cross-sectional study carried out in Egor LGA of Edo State. The participants were children aged 1 – 24months and mother pair. Multi-staged sampling technique was utilized in the selection of subjects. A semi-structured interviewer administered questionnaire was used for data collection. The data obtained were analysed using IBM SPSS version 20 statistical software.

Results: One hundred and eighty-six mothers (44.5%) of

the 418 recruited initiated breastfeeding early. The prevalence of exclusive breastfeeding was 36.6%. Maternal education was significantly associated with the practice of EBF while maternal age and delivery facility were significantly associated with early initiation of breastfeeding. The median duration of breastfeeding was 15.1 ± 2.3 months.

Conclusion: The breastfeeding practices of mothers of children aged 1 – 24months in Egor LGA are below average.

Recommendation: Health Education at the community level on breastfeeding practices

Keywords: Breastfeeding , practices, Egor LGA

Survival and Nutritional Status of Severe Acute Malnutrition, Six Months Post-Discharge from Out-patient Treatment in Jigawa State, Nigeria

¹John C, ¹Diala U, ¹Adah R, ²Lar L, ²Envuladu EA, ³Adedeji I, ⁴Lasisi KE, ⁵Olusunde O, ⁶James F ¹Abdu H.

¹Department of Paediatrics, Jos University Teaching Hospital, Jos, Nigeria

²Department of Community Medicine, Jos University Teaching Hospital, Jos, Nigeria

³Department of Paediatrics, ⁴Department of Mathematical Sciences, Abubakar Tafawa Balewa University Teaching Hospital Bauchi, Bauchi, Nigeria

⁵National Primary Health Care Development Agency, North Central Zonal Office, Abuja

⁶Federal Ministry of Health, Maternal, Newborn and Child Health Unit, Abuja

Email: cchibunkem@yahoo.com

Background: The Outpatient Therapeutic Program (OTP) brings the management of Severe Acute Malnutrition (SAM) closer to the community. Many lives have been saved through this approach however little data exists about the outcome of the children discharged from such programmes. This study was aimed to determine the outcome of children with SAM six months post discharge.

Methodology: This was a prospective study of SAM patients admitted into 10 OTPs in two local government areas of Jigawa state from June 2016 to July 2016.

Data from Consenting caregivers were captured using mobile android device. The general demographic characteristics, infant and young child feeding practices, medical history and anthropometric measurements were captured at recruitment, discharge and at 6months post-discharge.

Data collected was analysed using Stata MP 14 and anthropometric measurements were computed using the 2006 World Health Organization (WHO) growth standard.

The primary outcome measures were nutritional status at follow-up (Mid upper arm circumference and weight-for-height z-score, mortalities and relationship between recruitment and post-discharge indices.

Result: Among 383 subjects followed up, 93.2% were alive at 6months while 6.8% were mortalities.

Of the living subjects, 94.1% had MUAC >12.5cm, sig-

nificantly higher than recruitment levels. Prevalence of wasting (WHZ<-3) dropped from 68.9% to 17.6% at follow-up.

Number of children with complete immunization improved (35.8% vs 27.9%) and a decrease in number of unimmunized children (34.5% vs 20.5%) but an increase in number of incomplete immunization (37.6% vs 43.7%) at discharge, $p < 0.001$.

Mortalities were commoner among the 12-23 months old. Most deaths (61.5%) occurred within the first 3 months post-discharge; mortalities were significantly short statured at recruitment, $p = 0.016$; had a smaller head circumference, $p = 0.005$ and appeared more wasted (CI -6.9/-9.3 vs -3.7/-2.55) $p = 0.005$.

Conclusion: Significant outcome in nutritional and immunization status is demonstrated. Mortalities are commoner within first three months and among young age-groups. Severely deranged anthropometry maybe responsible for post-discharge mortalities.

Adequacy of bristol stool form scale in the assessment of stools by mothers of healthy infants in Ibadan, Nigeria

An important complaint of mothers of infants is their stool form. In the evaluation of stool forms, healthcare workers usually depend on mothers' reports which are subjective and influenced by interpretation bias by health care personnel. There is therefore the need for an objective method of describing stool forms. In the present study, we evaluated the utility of the Bristol Stool Form Scale (BSFS) when used by mothers of healthy Nigerian infants.

Materials and Methods: The mothers of 122 healthy infants delivered at term and less than six months of age attending the Infant Welfare Clinics of the Institute of Child Health, University College Hospital and Adeoyo Maternity Teaching Hospital, both in Ibadan, Nigeria for routine immunisation were enrolled. Mothers were requested to identify their child's most recent stool using the 7-point BSFS.

Results: The mean (standard deviation) age of the 122 study infants was 80 ± 41.6 days (range 4-180 days). Eighty-eight (72.1%) infants were exclusively breastfed and 34 (27.9%) were on mixed feeding. Almost all (120; 98.4%) mothers felt that the BSFS adequately described their infants' stools. The most commonly reported types were Type 6 (56.7%) and Type 7 (33.3%). There was no association between reported stool consistency and infant feeding, level of maternal education and number of previous babies nursed.

Discussion: The BSFS chart may be a reliable tool for describing stool consistency in healthy infants, notwithstanding infant feeding, the mothers' level of education and her previous experience of childcare. Further research is needed to evaluate the agreement between mothers and healthcare workers in describing stool consistency using the BSFS in this setting and also its utility in children with gastrointestinal disorders.

Conclusion: This study indicated that the BSFS may be a reliable tool for mothers to describe stool consistency

in healthy Nigerian infants.

Helicobacter pylori infection in Malnourished Children seen in Lagos

*Adeniyi OF, **Temiyi EO, *Fajolu IB,

Ogbenna AA, *Lawal M

*Department of Paediatrics, College of Medicine, University of Lagos/Lagos University Teaching Hospital, Idi - Araba, Lagos

**Department of Paediatrics, College of Medicine, University of Lagos/Lagos University Teaching Hospital, Idi - Araba, Lagos

***Department of Haematology, College of Medicine, University of Lagos/Lagos University Teaching Hospital, Idi - Araba, Lagos

****Department of Paediatrics, LUTH

Email: layo_funke@yahoo.co.uk

Introduction: Helicobacter pylori (Hpylori) a gram negative bacterium has been identified as a culprit for diseases like gastritis, peptic ulcer disease and is believed to be acquired in childhood. However, there remains conflicting reports on malnutrition and Hpylori infection with paucity of data in Nigerian children. The study documents the prevalence of H pylori infection in malnourished children and healthy controls and highlights the observed peculiarities.

Methods: 130 malnourished children aged 5 months-8 years and 120 age, sex and socioeconomic matched healthy controls were recruited into the study. Anthropometry was done for all the children and the Hpylori status was determined with the use of monoclonal stool antigen test in all the participants. Logistic regression analysis was used to determine the factors that could predict the occurrence of the infection in the children.

Results: The prevalence of h pylori in the malnourished children was 25.8% compared to the 36.1% in the controls ($p = 0.127$). 53.1% of the malnourished children had moderate malnutrition while 29.2% were severely malnourished. The prevalence of Hpylori infection in the stunted (35.5%) and wasted children (35.9%) were comparable. The infection was also more prevalent in the 1-5 year age group (81.4%) and least prevalent in the children above 5 years. Multivariate analysis showed that only stunting and religion were significantly related to the infection. ($p = 0.042$)

Conclusion: Malnourished children are still predisposed to Hpylori infection and more so in those that stunted. There is need for further studies to determine the relationship between malnutrition and Hpylori infection in African children.

Knowledge attitude and practices of mothers regarding diarrhoea in children in Abakaliki LGA of Ebonyi State, South East Nigeria

Asiegbu UV¹, Asiegbu OG², Ezeonu CT¹

Ezeanosike OB¹, Odoh NA³

¹Department of Paediatrics, ²Department of Obstetrics and Gynaecology, Federal Teaching Hospital, Abakaliki, Ebonyi State

³Department of Paediatrics, State House Hospital, Abuja

Email: uzomavivianasiegbu@gmail.com

Background: Diarrhoeal disease has significantly led to infant morbidity and mortality. Infection is spread as a result of poor hygiene. Death from diarrhoea is mainly due to loss of water and essential minerals. Oral rehydration solution (ORS) is most useful in its treatment. Prevention is basically through adequate sanitation and hygiene. This study is therefore aimed at determining mother's knowledge, attitude and practice about diarrhoea in children in Abakaliki LGA of Ebonyi State.

Methods: A cross sectional questionnaire-based study was conducted on 33 women who brought their babies to the well-baby/immunization clinics at a primary health care centre in Abakaliki LGA. The questionnaire consisted of three sections designed for assessing the knowledge, attitude and practice and a section for demographic characteristics. Likert's scale was used to assess their response. Data was analyzed using Epi Info 7.1.3.10 of CDC, Atlanta.

Results: Majority (81.8%) had good knowledge about diarrhoea illness, these were seen mainly among mothers who reside in urban areas and who also had higher level of education. Majority 69.70% strongly believe that witchcraft cause diarrhoea, these were mainly from the rural areas with low or no formal education. 42.4% of these women use anti-diarrhoeal in treatment. Although many mothers had adequate knowledge about diarrhoea illnesses,

Conclusion: There is still need to fill up gaps in their attitudes and practice especially in the rural areas to reduce the mortalities associated with diarrhoea illnesses.

Keywords: Diarrhoea, Oral rehydration solution, knowledge, attitude and practice.

Prescription of zinc and low-osmolarity ors for under-five children with diarrhoea by primary healthcare workers in Ibadan, Nigeria

Bamidele SO, Adediran KI

Institute of Child Health, College of Medicine,

University of Ibadan, Nigeria

Email: rolaadedgoog@gmail.com

Introduction/Background: Zinc plus Low osmolarity Oral Rehydration Salt solution (Zn +LoORS) is the current recommendation for management of childhood diarrhoea. Primary healthcare workers (PHCWs) are usually the first line of contact for these children.

Aims/Objectives: To determine the levels of and factors

associated with knowledge and prescription of Zn + LoORS amongst PHCWs in Ibadan.

Subjects and Methods: A cross-sectional study was conducted in five local government areas of Ibadan Information from 200 nonmedical PHCWs, selected via a three-stage sampling technique, was obtained using a self-administered questionnaire. Key informant interviews (KII) of 10 matrons were also done. Descriptive statistics and Chi-square were utilised in analysing the data with level of significance set at $p < 0.05$.

Results: The PHCWs were from 7 cadres, mean age 40.59 ± 9.90 years, 191 (95.5%) females, and 85 (42.5%) had been on the job for 16-20 years. Of all, 136 (68%) prescribed Zn +LoORS. Only 57 (28.5%) and 102 (51%) knew the correct doses of LoORS and zinc respectively. Factors associated with correct prescription of Zn +LoORS included male gender ($p = 0.100$, $\chi^2 = 2.70$), 16 – 20 years' experience ($p = 0.387$, $\chi^2 = 3.03$) and being in the Senior CHEW cadre. ($\chi^2 = 16.38$, $p = 0.012$). KII revealed that many matrons could not differentiate between the old and new forms of ORS.

Infant feeding practice and nutritional status: A rural- urban comparison in Kano

¹Umma AI, ²Taiwo GA, ²Zubairu I

¹Department of Paediatrics, ²Department of Community Medicine, Bayero University/Aminu Kano Teaching Hospital Kano

Email: aummaibraheem@gmail.com

Background: Appropriate infant feeding practice remains one of the cost-effective ways of reducing under five morbidity and mortality. However, infant feeding practice has remained poor in this environment.

Objectives: To determine and compare the mother's nutritional knowledge, infant feeding practices and the nutritional status of their infant in urban and rural communities in Kano state.

Methods: A comparative cross-sectional study was conducted in one urban (Kano municipal council) and one rural (Madobi) local Government Areas in Kano. A semi-structured questionnaire was administered to 440 urban and 440 rural caregivers and their infants.

Anthropometric indices were used to determine the children's nutritional status. Data was analyzed using SPSS version 21.

Results: Majority of the urban caregivers ($n=273$; 62.1%) had good knowledge on infant feeding practices, while majority of the rural caregivers ($n=314$; 71.4%) had fair knowledge. There was statistically significant difference in the urban and rural infant feeding practices (302; 68.6% vs 388; 88.2%; $p = 0.001$). Few of the urban (16.8%) and rural (8.9%) mothers breastfed exclusively. Many (85.7% vs 91.4%) of the urban mothers and rural mothers introduced complementary foods before 6 months of age. Wasting (49.6% vs 38.9%; $\chi^2 = 10.19$, $p = 0.006$) and stunting ((43.9% vs 35.4%; $\chi^2 = 5.4$, $p = 0.143$) was more prevalent among rural infants.

Conclusion: Although many of the caregivers had good

knowledge, this has not translated to good practice and the nutritional status remains poor. Sustainable strategies are required to improve feeding practices and nutritional status of children.

Keywords: Infant feeding practice, Nutritional status, Rural, Urban

Demographics of children with severe acute malnutrition in Usmanu Danfodiyo University Teaching Hospital, Sokoto, North-Western Nigeria

Jiya NM, Adamu A, Yusuf T, Baba J, Ibitoye PK, Ugege MO, Jiya FB, Isezuo KO, Hassan MA.

Department of Paediatrics, Usmanu Danfodiyo University Teaching Hospital,

PMB 2370, Sokoto, Nigeria

Email: nmajiya2013@gmail.com

Background: Under nutrition underlies half of all deaths of under-five children globally, especially in resource poor countries Nigeria inclusive. Under nutrition remains one of the health challenges that Nigeria has to deal with to remain on course to achieve the health-related Sustainable Development Goals.

Objectives: To determine the prevalence, demographic factors, sub-types and outcome of Severe Acute Malnutrition (SAM) among children aged 6 - 60 months as seen in UDUTH, Sokoto.

Methods: This descriptive observational study was conducted from 1st January to 31st December 2015 among children aged 6-60 months admitted into Emergency Paediatric Unit (EPU) of UDUTH, Sokoto with SAM. Relevant information was entered into a proforma. Data analysis was done with SPSS version 20.

Results: One hundred and twenty-four (11.0%) of total admission of 1,127 had SAM during the period. Males were 68(54.8%) with M: F of 1.2:1 and mean age (\pm SD) was 17.8(\pm 8.5) months. Ninety-seven(78.2%) were of lower socioeconomic status with maternal illiteracy in 79(63.7%), large family size 77(62.1%) and no immunization in 99(79.8%). One hundred and six (85.5%) were not exclusively breastfed with delayed initiation of complementary feed in 53(42.7%).Ninety-four (75.8%) had non-oedematous, 30(24.2%) oedematous SAM. Eighty-nine (71.8%) were discharged, 9(7.3%) signed against medical advice while 26 died giving case-fatality rate (CFR) of 21.0%.

Key Words: Severe Acute Malnutrition, children, prevalence, Sokoto

Pattern of Oral Diseases in Children that Presented in the Dental Clinic of Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi

Nri-Ezedi CA, Ofiaeli OC*, Nwaneli EI**

**Department of Paediatrics, Nnamdi Azikiwe University Teaching Hospital, Nnewi.*

Email: chisomnriezedi@gmail.com

Introduction: Oral diseases are one of the most common

non-communicable diseases seen in children. It is also the most neglected.

Objectives: To determine the pattern of oral diseases among children who presented in the dental clinic of NAUTH from February 2012 to December 2016.

Methods: A retrospective study that assessed for oral diseases among children using the dental health records of NAUTH over 58 months.

Results: 1105 cases presented in the dental clinic during the study period, out of which 546 were males and 558 females with a ratio of 1:1.01. The age range of subjects was 1 month to 17 years (Mean age of 11 years, SD \pm 4.2 years). 97.8% of cases were symptomatic. Across all age groups, periodontitis was the prevalent disease seen in 32.6% of cases followed by retained deciduous teeth, gingivitis and caries seen in 9.9%,9.4% and 9.0% respectively ($p < 0.0001$).

Conclusion: An increasing trend in of oral diseases was observed during the study period with periodontitis as the leading diagnosis. There is need for increased awareness particularly among paediatric health care providers with effective strategies tailored to prevent and control this trend.

Keywords: Oral diseases, children, NAUTH

Glanzmann thrombasthenia: a rare bleeding disorder in a Nigerian girl

Ezenwosu OU, Chukwu BF, Ikefuna AN, Emodi IJ

Department of Paediatrics, University of Nigeria Teaching Hospital, Ituku/Ozalla, Enugu, Nigeria

Email: osita.ezenwosu@unn.edu.ng

Introduction: Glanzmann Thrombasthenia (GT) is an extremely rare autosomal recessive bleeding disorder due to defective platelet membrane glycoprotein GP IIb/IIIa (integrin IIb 3). The prevalence is estimated at 1:1,000,000 and it is commonly seen in areas where consanguinity is high with epistaxis, gingival bleeding and menorrhagia as common presentations.

Case Presentation: The authors report a 15 year old Nigerian girl, born of non-consanguineous parents, who presented with prolonged heavy menstrual bleeding since menarche 3 months earlier, weakness and dizziness. She had past history of recurrent episodes of prolonged epistaxis, gastrointestinal and gum bleeding at early childhood. Her mother and aunt had repeated epistaxis during their childhood. On examination, she was severely pale with a haemic murmur. The initial diagnosis was Menorrhagia secondary to Bleeding Diathesis probably von Willebrand disease. Her relevant investigation results showed anaemia, normal WBC count, platelet count, Factor VIII, Factor IX, von Willebrand assays but raised PT and APTT. She was on supportive treatment with fresh whole blood, fresh frozen plasma and platelets until diagnosis of GT was made in the USA. Currently, she is on 3 monthly intramuscular depo-provera with remarkable improvement.

Conclusion: To the best of our knowledge, this is the first documented report of GT in our environment where consanguinity is very rare. Our health facilities require

adequate diagnostic and treatment facilities for rare diseases like GT. Meanwhile, there is need for collaboration with centres in resource-rich countries where samples can be promptly analysed for diagnosis.

Key words: Glanzmann thrombasthenia, Consanguinity, Menorrhagia, Nigerian girl

Pattern and outcome of paediatric oncologic cases in Lagos University Teaching Hospital, a 7yr experience

Akere ZA, Akinsete AM, Renner A

*Lagos University Teaching Hospital, Idi Araba, zaira
Email: mide01@yahoo.com*

Background: The number of children with cancer is on the increase and there is no corresponding increase in the resources available to manage these children.

Despite numerous challenges, some of these children survive this difficult experience.

Aims and objectives: this paper aims to provide information concerning the pattern, demographic distribution, and outcome of Paediatric oncologic cases admitted in Lagos University Teaching Hospital over the last 7years.

Methods: it is a retrospective study. Demographic and clinical data of patients who were admitted in the last 7 years (September 2010- September 2017) were extracted from admission registers in the wards. Additional information was retrieved from patients' clinical notes.

Results: a total of 367 children with cancer were admitted within that period. The males were more affected. Age distribution was from 2 weeks to 16years. Acute lymphoblastic leukemia made up the highest number of admissions; however 85% of them died compared to 85% survival in developed countries. Survival rate was highest in nephroblastoma which represented the third most common case admitted in that period.

Conclusion/ recommendations: this study shows that many children are diagnosed with cancer die even in those who have cancers with good survival rates. This is due to late presentation, financial constraints during management and availability of blood support services. This study will help to advocate supporting children with cancer by providing a foundation to assist with the financial burden of the disease. In addition, structures should be put in place for blood support services and current important diagnostic techniques.

Keywords: Admission, survival, cancer

Annual stroke incidence in children with sickle cell disease and elevated TCD velocities treated with hydroxyurea therapy

Lagunju IA, Brown BJ, Esione A, Oyinlade AO, Adeniyi T, Sodeinde OO

*Department of Paediatrics, College of Medicine,
University of Ibadan*

Background: Elevated transcranial Doppler (TCD) velocities accurately predict stroke risk in children with

sickle cell disease (SCD). Chronic blood transfusion, the gold standard for primary stroke prevention is faced with numerous challenges in resource-poor countries. Hydroxyurea (HU) has been shown to reduce elevated TCD velocities in children with SCD.

Aim: To determine the effectiveness of HU in reducing the risk of primary stroke in a cohort of Nigerian children with SCD and elevated velocities treated with HU.

Methods: Children with SCD and elevated TCD velocities 170cm/sec treated with HU were prospectively followed for a minimum period of 12 months to determine annual incidence of primary stroke in the cohort.

Results: One hundred and four children, 53 males and 51 females were enrolled into the study. Their ages ranged from 2 to 16 years with a mean of 7 years. At first TCD examination, velocities ranged from 173 to 260 cm/sec and were in the conditional and high-risk range in 43 (41.3%) and 61 (58.7%) children respectively. Follow up ranged from 1 to 8 years with a mean of 3.6 years. Mean TCD velocities showed a significant decline from 197.6 (SD=15.9) cm/sec to 168.7 (SD=21.3) cm/sec (P<0.001). One stroke event occurred in the cohort, giving a stroke incidence of 0.27/100 person year.

Conclusion: Hydroxyurea significantly reduces TCD velocities in Nigerian children with SCD and elevated TCD velocities with a corresponding reduction in the incidence of primary stroke. Hydroxyurea may represent a potential alternative for primary stroke prevention in resource-poor countries where the burden of SCD resides.

Keywords: Stroke, Sickle cell, Hydroxyurea

Effect of acute painful crisis on the blood pressures of children with sickle cell vaso-occlusive crisis

**Onalo R, *Nnebe-Agumadu U, #Oniyangi OO,
&Antoinette C, &Cooper P*

**Department of Paediatrics, University of Abuja Teaching Hospital, Gwagwalada, Abuja*

#Department of Paediatrics, National Hospital, Abuja

&Department of Paediatrics, University of the Witwatersrand, Johannesburg

Email: richardonalo@yahoo.com

Background: Acute painful crisis in sickle cell patients is often associated with transient elevation in blood pressure. There is an association between cerebrospinal accidents and higher blood pressures in sickle cell patients.

Objective: To determine the prevalence and severity of blood pressure increase in children with acute painful episodes.

Methodology: A two site, age and sex matched case – control study, involving 30 sickle cell anaemia patients in steady state and 30 patients with severe vaso-occlusive crisis was conducted over a six month period. Study adhered to Helsinki declaration and good clinical practice. Blood pressure measurements were done according to standard protocol while the severity of pain was assessed by Numerical Visual Pain Scale.

Results: A total of 60 patients (30 in steady state, 30 in

crisis) were recruited. Their mean age was 11.1 ± 3.7 year for those in crisis and 10.6 ± 3.0 years for those in steady state. Pain was rated at 8.6 ± 1.2 and the mean number of pain sites was 2.5 ± 1.0 . The mean systolic blood pressure was 122.5 ± 11.7 and 103.2 ± 10.6 mmHg respectively for crisis and steady states while the mean diastolic pressures was 74.6 ± 14.6 mmHg for crisis state and 65.7 ± 10.5 mmHg for steady state. Seventeen patients with crisis had both systolic and diastolic hypertension compared to only two in those in steady state. Blood pressure percentile was greater than 99+5 in 8 patients. Isolated systolic or diastolic hypertension was not common.

Conclusion: Acute elevation in systolic and diastolic blood pressures is common in child with vaso-occlusive crisis. Therefore meticulous attention to blood pressures of patients with sickle cell crisis is recommended.

Purpura fulminans with peripheral gangrene in severe falciparum malaria - a case series

Oladokun RE¹, Fowotade AA², Lawal TA¹
Department of Paediatrics, Department of Medical Microbiology, University College Hospital, Ibadan
Email: tope_lawal@yahoo.com

Background: Purpura fulminans is an acute fatal illness consisting of septicaemia, shock, and disseminated intravascular coagulation, often manifesting with gangrene of the distal extremities and necrosis of skin. Purpura fulminans associated with severe malaria has rarely been reported among children.

Case reports: Two cases of purpura fulminans with disseminated intravascular coagulation probably due to severe falciparum malaria, are presented from a tertiary health facility in Nigeria. Both cases were males, and were infants aged 6 and 7 months respectively. They presented with fever, seizures, loss of consciousness and features of shock and had associated peripheral gangrene which developed hours into admission. Investigations showed *P. falciparum* hyperparasitaemia and evidence of disseminated intravascular coagulation. No focus for sepsis was identified and there were no bacterial isolates from blood culture. Treatment consisted of parenteral artesunate and broad spectrum cephalosporin as well as vasopressor agent dopamine, mannitol for raised intracranial pressure and phenobarbitone for seizures. The second child survived but was left with residual gangrene of all the digits which was awaiting surgical amputation at the time of the report.

Conclusion: The cases presented demonstrate that purpura fulminans can occur with severe malaria even in *P. falciparum* endemic settings.

Key Words: Purpura fulminans, peripheral gangrene, Severe falciparum malaria, children

Acute chest syndrome, higher serum levels of interleukin-8 and highly-sensitive C-reactive proteins are associated with spirometric lung dysfunction in children with sickle cell anaemia

Samuel AA¹, Bankole PK¹, Kehinde OO², Olufemi OS³, Oyeku AO¹, Oluwagbemiga OA¹
Department of Paediatrics and Child Health, Obafemi Awolowo University (OAU), Ile-Ife.
Department of Paediatrics, Wesley Guild Hospital Ilesa Unit, OAU Teaching Hospitals Complex, Ile-Ife.
Department of Chemical Pathology, OAUTHC, Ile-Ife.
Email: adegoke2samade@yahoo.com

Introduction/Background: Sickle cell anaemia (SCA) is a chronic inflammatory disorder with multiple organ manifestations including acute and long term pulmonary dysfunctions.

Aims/Objectives: To assess lung functions of children with SCA and determine the role of acute chest syndrome (ACS) and immunological factors (serum proinflammatory cytokines; highly-sensitive C-reactive protein (hs-CRP); leucocytes and 25-hydroxyvitamin D (25-OHD) in the development of lung dysfunction.

Subjects and Methods: This cross-sectional study included 76 children aged 4–15 years with SCA in steady state. They were classified into normal or abnormal lung function (ALF) using spirometric data (forced expiratory volume at 1 second (FEV1), forced vital capacity (FVC) and FEV1/FVC ratio. Their clinical and immunological data were compared by bivariate and regression analyses.

Results: Fifty (65.8%) had ALF, comprising 23 (30.3%), 3 (3.9%) and 24 (31.6%) with restrictive, obstructive and mixed patterns respectively. Twenty-eight (36.8%) had history of ACS. Children with ACS were 3.6 times more likely to have ALF than those without ACS, 82.1% vs. 56.3%, $p=0.022$, OR=3.6, 95%CI=1.2-10.8. Interleukin (IL)-8 and hs-CRP were significantly higher among patients with ALF, 6.01 ± 1.61 pg/ml vs. 4.87 ± 2.62 pg/ml, $p=0.021$ and 11.30 ± 1.69 μ g/ml vs. 2.26 ± 2.42 μ g/ml, $p<0.001$ respectively. Although leucocyte counts and IL-17 were also higher and 25-OHD levels were lower, the differences were not statistically significant, $P>0.05$. Using logistic regression, ACS ($p=0.034$) and IL-8 ($p=0.02$) independently predicted presence of ALF.

Conclusions/Recommendations: Lung dysfunction of predominantly restrictive pattern is common in this cohort and is associated with previous ACS and altered immune markers. Prevention of ACS and inflammation may retard development of lung dysfunction in children with SCA.

Keywords: Acute chest syndrome, Interleukins, Lung function, Sickle cell anaemia.

Common aetiologic agents of bacteraemia in febrile children with sickle cell disease admitted at national hospital, Abuja

Okon E J, Oniyangi O, Akinbami FO

Background: Bacterial infections is a leading cause of morbidity and mortality in children with sickle cell disease (SCD). The data on the common aetiologic agents of bacteraemia in children with SCD in Africa including Nigeria is limited. This has affected the development of specific interventions required to reduce the burden of this complication in children with the disease.

Objectives: This study aims to determine the prevalence and the common aetiologic agents of bacteraemia in febrile children with SCD seen at the NHA.

Methods: This was a comparative study of children with SCD aged 6 months to 15 years and their age and sex matched counterparts with haemoglobin A and axillary temperature 38°C admitted at NHA as subjects and controls. Blood culture was performed with BACTEC Peds/F plus culture medium on each study participants.

Results: A total of 147 children with SCD aged between 6 months and 15 years and their age and sex matched counterparts with haemoglobin A were recruited as subjects and controls respectively. The mean age (SD) of the children was 5.0 ± 3.6 years. The prevalence of bacteraemia in SCD was 49 (33.3%) versus 24 (16.3%) in the controls. *Staphylococcus aureus* was the most common cause of bacteraemia in both groups, SCD 25 (51.0%) and controls 17 (70.8%), followed by *Strept. pneumoniae* 12 (24.5%), controls 2 (8.3%) and *Salmonella* spp 5 (10.2%) vs 2 (8.3%) in controls.

Conclusion: Bacteraemia is an important cause of morbidity in febrile children with SCD presenting at the NHA. *Staph. aureus*, *Strept. pneumoniae* and *Salmonella* spp. are the common cause.

The Care of Patients with Sickle Cell Disease at Primary Health Centres in Ilesa, Southwestern, Nigeria

Samuel AA¹, Morenike AA², Oyeku AO¹, Oluwagbemiga OA¹, Adekunle DA³

Department of Paediatrics and Child Health, Obafemi Awolowo University (OAU), Ile-Ife.

Department of Paediatrics, Wesley Guild Hospital Ilesa Unit, OAU Teaching Hospitals Complex, Ile-Ife.

Department of Paediatrics, Faculty of Medicine, Kuwait University, Kuwait.

Email: adegoke2samade@yahoo.com

Introduction/Background: In Nigeria, involvement of Primary Health Care (PHC) centres in the early identification and management of individuals with sickle cell disease (SCD) is largely unknown.

Aims/Objectives: To assess knowledge of PHC workers about SCD and evaluate the available facilities and management practices for SCD care at PHC centres in Ilesa, Southwestern Nigeria.

Subjects and Methods: This community-based

descriptive study involved 182 health-care workers in the 46 PHC centres in four Local Government Areas in Ilesa. The participants who were selected by simple random sampling completed self-administered questionnaire.

Results: Their average length of service was 12.9±6.6 years. Majority, 167 (91.8%) knew that SCD is an inheritable blood disorder. Knowledge on clinical features was also good. However, only 59 (32.4%) knew about prenatal/neonatal diagnosis, 68 (37.4%), 90 (49.5%) and 123 (67.6%) respectively knew about the role of chemoprophylaxis, adequate fluids and malaria prevention in SCD care. Only two (4.3%) PHC centres treat patients with SCD. In one, a visiting doctor runs a weekly clinic where children with SCD also attend. One routinely check haematocrit. SCD-targeted nutritional counselling and referral to secondary/tertiary hospitals were poor. None offer SCD screening, home visit, record keeping, hydroxyurea therapy, intravenous fluids or blood transfusion.

Conclusions/Recommendations: Knowledge of Ilesa PHC workers about early SCD diagnosis and crisis prevention is poor. The level of SCD care is also poor. PHC workers should be regularly trained and equipped on basic SCD management including early detection, crisis prevention and provision of basic genetic counselling to dispel associated myths and stigma.

Keywords: Ilesa, Primary Health Care, Sickle cell disease.

Cerebral Blood Flow Velocities of Children and Adolescents with Sickle cell Disease: correlation with clinical and hematological profiles

Bartholomew FC^{1,2,3}, Lyra IM³, Thiago F⁴, Jamary OF⁴, Uche SN^{2,5}, Marilda de Souza Gonçalves^{2,6}

1. Hematology/Oncology Unit, Department of Pediatrics, University of Nigeria, Nsukka

2. Centro de Pesquisas Gonçalo Moniz, Fundação Oswaldo Cruz, Bahia, Brazil.

3. Departamento de hematologia, Hospital Universitário Professor Edgard Santos (HUPES), Universidade Federal da Bahia, Bahia, Brazil

4. Ambulatório Pediátrico de Doença cerebrovascular, Hospital Universitário Professor Edgard Santos, Universidade Federal da Bahia, Bahia, Brazil

5. Department of Biochemistry, Ahmadu Bello University, Zaria, Nigeria

6. Departamento de Análises Clínicas e Toxicológicas, Faculdade de Farmácia, Universidade Federal da Bahia, Brazil

Email: chizzy_bath@yahoo.com

Background: Stroke is a devastating complication of sickle cell disease (SCD). Abnormal transcranial Doppler (TCD) result is the most important risk factor.

Objectives: The study aimed at evaluating TCD of children and adolescents with SCD in Salvador, Brazil, and correlating the flow velocities with clinical and hematological profiles of the patients.

Methods: TCD was performed on subjects aged 2-16

years, using a 2 MHz probe placed over the transtemporal windows. The oxygen saturation (SpO₂) and anthropometric parameters were measured, and clinical and hematological profiles retrieved from their medical records.

Results: One hundred and thirty-five patients were recruited. The time averaged maximum mean velocity (TAMMV) was 125cm/s. Patients with SCA had a significantly higher CBFV (131cm/s) than those with HbSC disease (107cm/s). Only one (0.74%) patient had abnormal TCD. CBFV correlated inversely with age, SpO₂, Hb, and positively with WBC and platelet counts. Previous history of ACS and recurrent painful crises was associated with abnormal or conditional velocity.

Conclusion: Frequency of abnormal CBFV in SCD was low. Young age, low SpO₂, Hb, and high WBC and platelet counts were associated with high TCD velocities. Previous history of ACS and recurrent painful episodes were associated with abnormal or conditional TCD velocity.

Key words: sickle cell disease, cerebral blood flow velocity, Transcranial Doppler, children, adolescents, Salvador.

Immune thrombopenic Purpura in a twin girl revealed by a traumatic injury in Parakou (North Benin)

Adedemy JD, Agossou J, Noudamadjo A, Agbeille Mohamed F.

Service de Pédiatrie, Département Mère Enfant, Faculté de Médecine, Université de Parakou, Bénin.

Pédiatre, MCA, Faculty of Medicine, University of Parakou, Benin. BP 123 Parakou,

Email: kofadier@yahoo.fr

Introduction : Idiopathic or autoimmune thrombocytopenic purpura (ITP) is a benign blood disease associated with an abnormal decrease in platelet count due to a disorder of the immune system resulting in the destruction of the platelets of the patient by the production of antibodies directed against them.

Objective : The authors report a case of autoimmune thrombocytopenic purpura in a twin 6-year-old girl. From this clinical case, a review of the literature was made.

Clinical case : Persistent cutaneous signs at different sites, mucocutaneous endobuccal bubbles and occurrence of hematuria were the main reasons for admission to the pediatric emergency room at Parakou University Hospital. This case poses three problems to solve : is ITP real ? for ITP is diagnosed by elimination. Is ITP isolated ? It could be associated to other auto-immune diseases or immunodeficiency. What are the tools and tips helping to undergo an optimal management ie treatment and ordinary life recommendations, both on the therapeutic side and on the recommendations for everyday life. The apparently healthy clinical condition of the twin sister of the subject also raised concerns of authors.

Conclusion : This clinical case allowed retaining the diagnosis by elimination and after treatment. The severe acute form poses the problem of its urgent care, the the-

rapeutic and the long-term follow-up.

Key words: Immune Thrombopenia (ITP), autoimmune, petechiae, purpura, hematuria, children.

Diagnostic dilemma in a case of childhood tumour in a resource limited setting: differentiating between acute myeloid leukaemia and rhabdomyosarcoma; a case report

¹Garba BI, ¹Sani UM, ¹Isezuo KO, ¹Waziri UM, ²Abdullahi K, ³Musa AU, ¹Hano IJ, ¹Abubakar M, ¹Inoh II.

¹Department of Paediatrics, ² Department of Histopathology, ³ Department of Haematology, Usmanu Danfodiyo University Teaching Hospital (UDUTH) Sokoto.

Background: Multiple primary childhood cancers can be synchronous or metachronous. With aggressive treatment of first cancer, the incidence of metachronous tumours is increasing; however synchronous tumours are rare. Acute myeloid leukaemia (AML) occurring in patients treated for rhabdomyosarcoma with cyclophosphamide and low-dose etoposide have been reported.

Objective: To highlight the challenges in a resource limited setting during management of a childhood tumour

Case report: A 10 year old boy referred with a 4 weeks history of bilateral protrusion of the eyes with fever, but no bone pains or bleeding.

Results: Cranial computer tomography (CT) scan revealed hyperdense enhancing mass lesion in the superior and lateral aspect of the right orbit. Initial full blood count (FBC) showed anaemia, thrombocytopenia with normal white blood cell count (WBC). Fine needle aspiration cytology showed features consistent with a small round blue cell tumour of childhood, favouring embryonal rhabdomyosarcoma. Chemotherapy was commenced, but was changed to 2nd line cytotoxics due to lack of significant improvement. Four months later, he developed generalized bone pains and repeat FBC showed marked leucocytosis and thrombocytopenia. Bone marrow aspiration (BMA) revealed myeloid hyperplasia with maturation arrest and suppression of other lineage consistent with Acute Myelomonocytic Leukemia FAB M4. He subsequently deteriorated and died following hematemeses after commencing chemotherapy for AML.

Conclusion: Our patient was initially treated for rhabdomyosarcoma but later diagnosed with AML. Lack of further investigations limited confirmation of either a late diagnosis of AML or a synchronous tumour.

Key words: Acute myelomonocytic leukemia, Rhabdomyosarcoma, synchronous

Generalized lymphadenopathy: an unusual presentation of burkitt lymphoma in a 6-year-old child

Ezenwosu OU¹, Chukwu BF¹, Okafor OC², Ikefuna AN¹, Emodi JJ¹

Department of Paediatrics, Department of Morbid Anatomy, University of Nigeria Teaching Hospital, Ituku/Ozalla, Enugu, Nigeria

Email: docsita31@yahoo.com

Introduction: Burkitt Lymphoma is the fastest growing tumor in human and the commonest of the childhood malignancies. Generalized lymphadenopathy is a common feature of immunodeficiency associated Burkitt lymphoma but an uncommon presentation of the endemic type in Human Immunodeficiency Virus (HIV) negative children.

Case Presentation: The authors report a 6 year old HIV negative boy who presented with generalized lymphadenopathy, cough, weight loss, fever and drenching night sweat and had received native medication as well as treatment in private hospitals. His examination revealed hepatosplenomegaly, bull neck with generalized significant massive lymphadenopathy. Diagnosis was missed initially until a lymphnode biopsy for histology confirmed Burkitt lymphoma. He was managed on combination chemotherapy with complete resolution and now on follow up.

Conclusion: Burkitt lymphoma involving lymphnode generally as the primary site is unusual. High index of suspicion and early biopsy are the key in this uncommon presentation.

Key words: Burkitt lymphoma, generalized lymphadenopathy, child

Haematologic and clinical responses to hydroxyurea in children with sickle cell disease at the University of Abuja Teaching Hospital, Abuja Our experience

*Nnebe –Agumadu U, *Adebayo IA

*Department of Paediatrics, College of Health Sciences, University of Abuja, Abuja.

[†]Department of Paediatrics, University of Abuja Teaching Hospital, Gwagwalada, Abuja

Background: Effectiveness of hydroxyurea in sickle cell disease (SCD) is well documented yet there is paucity of its use in Nigeria owing to parental and societal factors. Currently, few Nigerian children with SCD are using hydroxyurea.

Aim and objectives: To determine the laboratory and clinical response of children with SCD to hydroxyurea therapy and determine barriers to effective treatment.

Methods: A retrospective review of fifty children with SCD aged 1 – 17years who are on hydroxyurea therapy in the paediatric sickle cell unit was done.

Outcome measures:

Laboratory response

Clinical response

Side effects

Results: Fifty Children (29 M and 21 F) with a mean age

of 9.6 years were started on HU from Dec 2016 to October 2017 but only patients on therapy for more than 3months were analysed (n=32) All were homozygous HbSS. Mean duration of Hydroxyurea therapy was 4.3 months (range 3 to 10 months) with a mean HU dose of 15.9mg/kg (range 15mg/kg to 22mg/kg). Mean HbF level in patients was 6.9%(range 1.9% to 22.5%).

Six or more months duration of HU resulted in significant increase in mean Hb levels and a reduction in mean WBC. There was significant reduction in vaso-occlusive crises, frequency of hospitalization and blood transfusion. One child discontinued HU due to side effects. Two others had mild side effects. Challenges included initiation and sustainability of therapy

Conclusion: HU is beneficial in the management of children with SCD in UATH. Acceptability is high among patients and families, but sustainability of therapy remains a challenge.

Serum Ferritin Levels In Patients with Sickle Cell Anaemia on Chronic Transfusion Therapy in National Hospital Abuja

Hamza N¹, Oniyangi O², Ezeh GO¹, Okon EJ¹, Ogbe OP³, Kure HI¹

¹:Department of Paediatrics, National Hospital Abuja

²:Department of Paediatrics, Department of

Haematology, National Hospital Abuja

Email: hamzanajaatu@gmail.com

Background: Central to the prevention of stroke in sickle cell anaemia (SCA) is chronic blood transfusion therapy (CTT). A major complication of CTT is iron overload, with its attendant morbidities including liver and cardiac toxicity. .

Aim: This is to describe our experience with iron overload (measured by serum ferritin) in children with SCA on CTT. This is to raise awareness among clinicians of the occurrence of iron overload as a complication of CTT in children with SCA.

Materials and methods: It is a retrospective study of the serum ferritin levels of children with SCD on CTT, attending the sickle cell clinic of National Hospital Abuja over a 10 year period 2007 – 2017. Data extracted from the folders of patients with SCD on CTT was analysed using Microsoft Excel 2010, and are presented as frequencies. Means were compared using ANOVA.

Results: A total of 19 children (M:F of 2:1) aged 5 to 17 years, on CTT for 1 - 11 years, mean 41.57 months were enrolled in the study. All (100%) had markedly elevated values of serum ferritin, ranged between 850.5ng/ml to 9324ng/ml, and mean of 2995.5ng/ml. One patient had greater than ten times pre-CTT elevation of serum ferritin after 10 months on CTT. There is a significant association between serum ferritin levels and CTT duration (p = 0.008).

Conclusions: Despite the importance of CTT for stroke prevention in SCA, it exposes the child to iron overload and its attendant morbidities hence the need for screening, risk benefit assessment and prompt treatment when present. Other treatment modalities of stroke prevention

in SCA such as Hydroxyurea should be explored.

Keywords: Sick cell anaemia, chronic transfusion therapy, hydroxyurea, serum ferritin

Myxoid liposarcoma in a 2 year old boy: a case report

Babalola TE¹, Adefehinti O¹, Aderibigbe AS²
Adeodu OO¹.

¹Department of paediatrics, Obafemi Awolowo University teaching hospitals complex, Ile-Ife

²Department of Radiology, Obafemi Awolowo University Teaching hospitals complex, Ile-Ife.
Email: tolugifty@gmail.com

Introduction: Liposarcoma is a rather uncommon soft-tissue tumor. The finding of a myxoid subtype has been shown to correlate with a poor prognosis. Although surgical treatment is relevant for resectable disease, radiation therapy and chemotherapy are also recognized forms of treatment, especially for more advanced disease.

Case presentation: We report the case of a 2 year old boy who presented with a right gluteal mass and right lower abdominal swelling of 8 months duration, inability to walk, and progressive difficulty with urination. An irregular abdominopelvic mass involving the right gluteal region was seen. Computed tomography showed the mass to have the density of muscle, compressing the urinary bladder, with bilateral dilatation of the pelvicalyceal systems. Biopsy histo-pathology revealed malignant cells with lipogenic differentiation as well as lipoblasts. He had chemotherapy and concurrent radiotherapy from weeks 9-12 of chemotherapy; following which a complete response was reported both clinically and radiologically. After a 49-week symptom-free period, he had a recurrence of right gluteal swelling and newer masses in the posterior neck and upper back. He had salvage chemotherapy; but his clinical condition deteriorated with altered sensorium and convulsions. He eventually succumbed to the disease 31 months after the initial diagnosis.

Conclusion: Myxoid liposarcoma is a rare tumour in the paediatric age group. Improvements in facilities for multi-modal treatment will help to improve outcomes in a limited-resource setting like ours.

Key word: Liposarcoma, Myxoid, Chemotherapy, Radiation, Paediatrics

Chronic Myeloid Leukaemia in Federal Teaching Hospital Abakaliki (FETHA): A Report of two cases

Udechukwu NP¹, Oyim-Elechi OC² and Okike C³
Department of Paediatrics, FETHA, Ebonyi State.
Email: patcy42@yahoo.com

Background: Chronic myeloid leukaemia (CML) is a myeloproliferative disorder characterized by proliferation of granulocytic cell lines at varying stages of development. It is predominantly a disease of the adult popu-

lation, accounting for 2-3% of all childhood leukaemia. In FETHA, we recorded 2 cases of CML between 2013 and 2016 and the diagnosis of the 2nd case was delayed.

Objective: To increase the awareness of physicians on this seemingly rare form of childhood leukaemia to encourage early diagnosis and prompt treatment.

Case reports: We present a 10-year-old boy and a 16-year-old girl who presented in our facility with features of CML chronic phase. Both cases had leucocytosis. Cytogenetic assessment was positive for BCR-ABL in both cases confirming chronic CML. The first case had Hydroxyurea before referral to Obafemi Awolowo University Teaching Hospital (OAUTH) for Imatinib therapy. The 2nd case was also referred to OAUTH Ile-Ife where she received Imatinib, however due to disease progression to blastic phase; she was referred back to our centre for treatment. She is currently on treatment for AML with appreciable response.

Conclusion: CML, although one of the rare childhood leukaemias is becoming more common, probably due to availability of diagnostic facilities. There is therefore need for increased awareness of the disease among physicians to minimize delays in the diagnosis with improved care and better outcome.

Management and Outcome of Patients with Nephroblastoma at the University of Abuja Teaching Hospital, Gwagwalada

Offiong UM, Fashie AP
Department of Paediatrics, University of Abuja Teaching Hospital, Gwagwalada, FCT
Email: andrewfashie@yahoo.co.uk

Background: Nephroblastoma is one of the commonest paediatric tumours in Nigeria. It accounts for more than 95% of kidney tumours in children. The tumour demonstrates rapid response to multi disciplinary treatment which includes surgery, chemotherapy with or without radiotherapy, with good survival rates even in resource poor settings.

Objective: To evaluate the management and outcome of patients with nephroblastoma attended to at the University of Abuja Teaching Hospital, Gwagwalada from 20012-2016

Design: Retrospective study

Setting: Paediatric oncology unit of the University of Abuja Teaching Hospital, Gwagwalada.

Results: Fifteen children aged 12 months – 12 years were studied. Eight (53%) were males and 7 (47%) were females. Six children (40%) were aged less than 24 months, 6 (40%) were 2-5 years, and 3 (20%) were above 5 years. The patients were treated using SIOP protocol. All the children had pre-operative chemotherapy. They all had nephrectomy and histological diagnosis. Nine (60%) completed treatment while 6 (40%) were lost to follow up. Four (27%) of the patients died, while 7 (46%) of the patients were disease free and alive 12 – 36 months after treatment.

Conclusion: Loss to follow up and cost of treatment had a negative impact on the outcome of the treatment. In-

creasing awareness for early recognition and introduction of free healthcare for all childhood cancers are some of the measures that can significantly improve the survival of these children.

The relationship between age at BCG vaccination and scar formation

¹Enemuo EJ, ^{1,2}Ubesie AC, ^{1,2}Okafor HU, ^{1,2}Ikefuna AN
¹Department of Paediatrics, University of Nigeria Teaching Hospital, Ituku Ozalla, Enugu
²Department of Paediatrics, University of Nigeria
 Email: agozie.ubesia@unn.edu.ng

Introduction: The absence of BCG scar may be an indication of failure of immune response or an unsuccessful vaccination.

Aims: This study sought to evaluate the relationship between age at BCG vaccination and scar formation

Subjects/Methods: This study was conducted at the Institute of Child Health, University of Nigeria Teaching Hospital, Enugu. Ethical approval was obtained from the Institution. Infants aged 13 to 15 weeks were examined for the presence of a BCG scar and the transverse diameter of scar measured. 5TU of PPD was implanted and read after 48 hours. Data analysis was with Statistical Package for Social Sciences (SPSS) version 20.0 (SPSS Inc. Chicago, Illinois, USA).

Results: Two hundred and twenty-six (80.7%) of 280 infants received BCG vaccination within the first week of life, of which 90 (39.8%) were vaccinated within 48 hours of birth. One hundred and ninety-nine infants (71.1%) developed BCG scars. Among them, 143 (71.9%) and 56 (28.1%) had scars ≥ 3 mm and < 3 mm in diameters respectively. BCG scar was present in 58 (64.4%) of the 90 infants vaccinated within the first two days of birth compared to 141 of 190 infants (74.2%)

vaccinated at third day of life ($\chi^2 = 2.833$, $p = 0.092$). The mean ages at BCG vaccination among infants with and without a BCG scar were 5.9 ± 5.9 days and 4.8 ± 4.8 days respectively ($p = 0.079$).

Conclusion: There was no relationship between postnatal age at BCG vaccination and scar formation/ tuberculin response.

Key Words: Age, Bacillus Calmette Guerin, Scar.

Tuberculin conversion rates as an indicator of immune response among BCG vaccinated infants in Enugu

¹Enemuo EJ, ^{1,2}Ubesie AC, ^{1,2}Okafor HU, ^{1,2}Ikefuna AN
¹Department of Paediatrics, University of Nigeria Teaching Hospital, Ituku Ozalla, Enugu
²Department of Paediatrics, University of Nigeria
 Email: agozie.ubesia@unn.edu.ng

Introduction: Vaccination with the Bacillus Calmette Guerin (BCG) remains an effective preventive measure

against tuberculosis but protection varies from 0 to 80%.
Aims: To determine the tuberculin conversion rates among BCG vaccinated infants

Subjects/Methods: A cross sectional study of infants aged 13 to 15 weeks carried out at the Institute of Child Health, University of Nigeria Teaching Hospital Enugu. Ethical approval was obtained from the Institution. Presence of BCG scars were ascertained and measured. 5TU of the PPD was implanted and read after 48 hours. Diameters of Mantoux induration were classified as negative (< 10 mm) and positive (≥ 10 mm). Data analysis was with Statistical Package for Social Sciences (SPSS) version 20.0 (SPSS Inc. Chicago, Illinois, USA).

Results: Two hundred and twenty-six (80.7%) of 280 infants received BCG vaccination within first week of life, of which 90 (39.8%) were vaccinated within 48 hours of birth. One hundred and eighty (64%) infants had tuberculin conversion as evidenced by a positive Mantoux test response with an induration diameter of at least 10mm. Among males, 104 of 143 (72.7%) had a positive Mantoux response compared to 76 of the 137 females (55.5%) ($p = 0.003$, OR = 2.140, 95% C.I = 1.300 to 3.525). There was a significant positive association between the presence of BCG scar and tuberculin conversion ($\chi^2 = 40.273$, $p < 0.001$).

Conclusion: The tuberculin conversion rate among BCG vaccinated infants was 64%. Males were twice more likely than females to have tuberculin conversion.

Key Words: Bacillus Calmette Guerin, Infants, Immune Response, Mantoux.

Childhood allergic rhinitis at usmanu danfodiyo university teaching hospital, sokoto: a preliminary report

Garba BI, Sani UM, Isezuo KO, Waziri UM, Hano IJ, Falaye AM, Mada IL, Abubakar FI
 Department of Paediatrics, Usmanu Danfodiyo University Teaching Hospital, Sokoto
 Email: bgilah@yahoo.com

Background: Allergic rhinitis (AR) is common with a worldwide prevalence of 14.6% in children aged 13 and 14 years. It is characterized by sneezing, rhinorrhoea, nasal congestion, itchy nose, nasal obstruction and post-nasal drip. Antihistamines are safe and effective for treatment of allergic rhinitis and ocular symptoms in rhinoconjunctivitis.

Objective: To describe the socio-demographic and clinical pattern of childhood AR seen at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto

Methodology: Descriptive, prospective study of children clinically diagnosed with AR attending the Paediatric Pulmonology and Allergy clinic of UDUTH, Sokoto from March 2017 to September 2017. A questionnaire was used to obtain relevant information and data was analysed accordingly.

Results: Of the 44 children enrolled, 23(52.3%) were males, with a M:F ratio of 1.1:1. Age range was 7 months to 13 years, with mean \pm SD of 5.34 \pm 3.25 years. Majority 26(59.1%) were between 1 to 5 years, followed

by 6-10 years group 12(27.3%). There were more males, however no statistical significance ($p=0.438$, Fischer's exact). Most of the children belonged to the high socio-economic class 26(59.1%) and have concomitant asthma 42(95.5%), however no statistical significance ($p=0.162$, Fisher's exact). Rhinorrhoea was the commonest symptom 32(72.7%), followed by recurrent sneezing 26 (72.7%) and nasal blockage 19(43.2%). Thirty one (70.5%) have intermittent AR and mild symptoms 30 (68.2%). Seasonal AR was seen in 32(72.7%) while 12 (27.3%) had perennial AR. All the children were treated with antihistamine and 27(61.4%) are on intranasal steroid.

Conclusion: AR is common in our clinic with majority having co-morbidities, particularly asthma. It is common in preschool age; majority are symptomatic and have mild intermittent AR.

Key words: Childhood, allergic rhinitis, asthma, Sokoto

Awareness and use of non-routine immunization opportunities by caregivers in selected communities in Ibadan, Nigeria

Onifade, TD, Adediran KI

Institute of Child Health, College of Medicine,

University of Ibadan, Nigeria

Email: rolaadedgoog@gmail.com

Introduction/Background: Immunization with Non-Routine vaccines (NRV) contributes to reduction of mortality in under-five and school aged children. Few studies have explored the level of awareness and use of NRV.

Aims/Objectives: This study was conducted to assess the knowledge and use of NRV among caregivers in Ibadan, Nigeria.

Subjects and Methods: Two low density communities in 2 LGAs were purposively selected. A household community survey was then carried out amongst 200 caregivers selected by systematic sampling. A self-administered questionnaire was used to obtain information on socio-demographic characteristics, child's health history knowledge of NRV (Rotavirus, MMR, Pneumococcal, Meningitis, HPV, Typhoid and Chicken pox) and their use. Descriptive statistics and Chi square were utilised in to analysing data and level of significance set at $p < 0.05$.

Results: Only 37% of the caregivers knew about any of the NRV. Of these, 54.1% obtained information from Secondary and Tertiary Health Care immunization centers. Few (10%) of households had used any of the NRV, (mainly Rotavirus vaccine 8.5%, MMR 5% and Pneumococcal vaccine 4%).. Significant reasons associated with receiving the NRV included caregivers knowledge ($\chi^2=37.838$, $p=.000$) and higher monthly income ($\chi^2=18.980$, $p= 0.01$). Main reason for not receiving any was lack of knowledge of the NRV (63%), and amongst those who knew, the cost of the vaccines (51.9%)

Conclusions/Recommendations: Awareness about the Non-routine Vaccines is poor and a major factor affecting their use. There is need for increasing awareness

about them especially in Primary Health Care facilities. They should also be included in the National Routine Immunization Program and subsidized.
Keywords: Immunization, Non-Routine Vaccines, Caregivers,

Prevalence and causes of missed opportunities for immunisation in children aged 0 to 23 months at the federal medical centre Umuahia

Okafor AF,¹ Korie FC¹, Ukegbu AU,² Ibe BC,³ Ughasoro M,³ Ojinnaka NC³

1Department of Paediatrics, 2Department of Community Medicine Federal Medical Centre Umuahia

3Department of Paediatrics, University of Nigeria Teaching Hospital Enugu.

Email: amarafan@yahoo.co.uk

Background: Missed Opportunities for Immunisation (MOI) is a significant cause of low immunisation coverage and resurgence of vaccine preventable diseases. Hence, identifying the causes of MOI in our health facilities and eliminating them will help improve immunisation coverage in the area.

Objective: To determine the prevalence and causes of Missed Opportunities for Immunisation in children aged 0 to 23 months at the Federal Medical Centre Umuahia, Abia State.

Methods: Exit interviews were conducted for 300 mother/child pairs of children aged 0 to 23 months consecutively as they exited the preventive and the curative sections of Federal Medical Centre Umuahia.

Results: Of the 300 children recruited, 142 (47.3%) were females and 158 (52.7%) were males with a F: M ratio of 1:1.1. Thirty six (12%) of all the children had missed opportunities for immunisation. The causes of MOI noted were; presentation of the children on the 'wrong' immunisation days (72.2%), false contraindications to immunisation by the health workers (13.9%), unavailability of vaccines (8.3%) and refusal to open a new vial (5.6%). The commonest reason why the children who presented on the 'wrong' immunisation days missed their previous immunisation appointments was because of non-availability of the mothers due to illness, parent's travel and farm work.

Conclusion: The commonest reason why MOI occurred at the Federal Medical Centre Umuahia was because the children presented on the 'wrong' immunisation days. Hence, all the vaccines should be made available to every eligible child that visits our health facilities on any day of the week in order to effectively eliminate MOI.

Keywords: Missed Opportunities for Immunisation, Children, Umuahia.

Pattern of Childhood Allergic Diseases at Usmanu Danfodiyo University Teaching Hospital, Sokoto

Garba BI, Sani UM, Isezuo KO, Waziri UM, Hano IJ, Falaye AM, Mada LI, Abubakar FI

Department of Paediatrics, Usmanu Danfodiyo

University Teaching Hospital, Sokoto

Email: bgilah@yahoo.com

Background: The burden of allergic disease is extensive; with an estimate of more than 47 million hospital presentations annually where allergy needs to be considered in the United Kingdom. Co-morbidity (different expressions of allergy in the same individual) occurs in allergic diseases. Asthma and allergic rhinitis (AR) are common causes of illness and disability worldwide; which can co-exist or manifest separately.

Few existing allergy services are available and there is paucity of data on pattern of childhood allergic diseases in Nigeria.

Objective: To describe the pattern of childhood allergic diseases seen at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto

Methodology: A descriptive prospective study of children attending the Pulmonology and Allergy clinic of UDUTH, Sokoto. Information regarding age, gender and allergic disease were obtained from August 2016 to September 2017; data was analysed accordingly.

Results: Of the 82 children enrolled, 44(53.7%) are males, with a M:F ratio of 1.2:1. Age range was 3 months to 15 years, with mean±SD of 6.08±3.99 years. Majority 39(47.6%) were under fives, 28(34.1%) between 5.0-9.9 years, while 15(18.3%) were between 10-15 years. There were more males, however no statistical significance ($\chi^2=0.331$, $p=0.847$). The commonest allergic disease was Asthma 75(91.5%), followed by AR 60 (73.2%), conjunctivitis 21(25.1%) and least was eczema 2(2.4%). AR was seen in 54(66.0%) asthmatics. Comorbidities were seen in 59(72.0%) of children.

Conclusion: Allergic diseases are common in children, more in under fives and males. Asthma was the commonest, followed by AR. AR was a common comorbidity in asthmatics.

Key words: Childhood, allergy, asthma, conjunctivitis, rhinitis

Assessment of clients' satisfaction with immunisation services at Nyanya General Hospital Federal Capital Territory Abuja

Okoli, CV

Nyanya General Hospital FCT Abuja

Email: chinyeluokoli@yahoo.com

Introduction: Immunisation has been shown to be an invaluable public health intervention that has saved many lives Millions of under five deaths are still attributable to vaccine preventable diseases especially in low income/developing countries. Despite the proven benefits of vaccination, the vaccine coverage in Nigeria for all vaccines remain abysmally low in all states of the

country but more so in the Northern part of the country. Several factors have been shown to affect vaccine uptake and consequently vaccine coverage. One of the factors that contribute to completion of immunisation series is the satisfaction of the clients with the services rendered at immunisation centres. Therefore, it is important to assess the level of clients' satisfaction with immunisation services at health facilities.

Aim: To assess clients' satisfaction with immunisation services at the immunisation clinic of Nyanya General Hospital Federal Capital Territory Abuja

Methods: A mixed method study comprising of a cross-sectional observational quantitative and qualitative aspect. The data collection tools were a structured interviewer administered questionnaire and Focus Group Discussions. Both descriptive and inferential statistics were carried out on the quantitative data and significance level was set at $p < 0.05$ at 95% confidence interval

Results: A total of 79 clients were recruited during the study and 97.5% of them were the female mothers of the children. Average age of index child was 5.29 ± 5.23 months. About 90% of the participants were very much satisfied with the services they received while 9% were just satisfied and only 1 person (1%) was not satisfied. The FGDs revealed poor health worker attitude as the most important factor that leads to dissatisfaction with services

Conclusion and Recommendations: There was a high level of satisfaction with immunisation services at Nyanya General Hospital despite some short comings in the services. Staff training at Nyanya General Hospital on appropriate attitude towards their clients is recommended.

Predictors of Reliability of Oral History of BCG Immunization of Under-Fives Among Caregivers in A Rural Community in Northern Nigeria

Ibrahim MS¹, Olawepo, OA², Esekhaigbe, C², Babandi, ZS², Umar, MU²,

¹ Department of Community Medicine, Ahmadu Bello University, Zaria.

² Department of Community Medicine, Ahmadu Bello University Teaching Hospital, Zaria.

Background: Though oral history of BCG immunization is commonly used in assessing immunization coverage and making clinical decisions, its reliability may not always be objective.

Objectives: The study identified predictors of reliability of oral history of BCG immunization of under-fives among caregivers in a rural community in northern Nigeria.

Method: It was a cross-sectional study of 357 caregivers in Turunku, Igabi Local Government Area, Kaduna State. Background information of caregiver and child pair was obtained using an interviewer-administered questionnaire deployed on Open Data Kit (ODK). Rapid assessment of BCG immunization status of the child was done through oral history, followed by verification from

either immunization card or presence of BCG scar on right upper arm of the child. Reliability was defined as concordance between oral history and presence of BCG scar or record of BCG vaccination on immunization card.

Result: Median age of caregivers was 25.5±5.0 years and mean age of children was 21.2 ± 13.6 months. Positive BCG immunization status was obtained by oral history [294 (82.4%)], immunization card [136 (46.3%)], and presence of scar [279 (94.8%)]. Oral history was reliable in only 133 (45.2%) cases. Predictors of reliability of oral history included history obtained from mother as caregiver (aOR=5.3, 95%CI=1.1-25.6); care-giver below 18 years (aOR=2.90, 95% CI=1.2-7.2); and child below 12 months (aOR=2.9, 95% CI=1.7-4.9).

Conclusion: Oral history of BCG immunization is most reliable if obtained from the mother, if caregiver is below 18 years and if the child is less than 12 months.

Keywords: Reliability, Oral history, BCG, Immunization.

Feasibility and cost analysis of antibiotics pooling as a financing strategy to enhance drug availability for children in resource poor hospitals in Nigeria

Maduka DU^{1,3}, Nwakoby IC², Onwujekwe OE³
Odike AI⁴

1. Department of Paediatrics, University of Nigeria Enugu Campus, Enugu, Nigeria. P.O. Box 1093 Enugu Nigeria.

2. Department of Banking & Finance, 3Department of Health Administration and Management, University of Nigeria Enugu Campus, Enugu, Nigeria

4. Department of Paediatrics, Irrua Specialist Teaching Hospital, Irrua, Edo State

Email: maduka.ughasoro@unn.edu.ng

Background: Antibiotic use is common but has a lot of challenges. Implementation of an efficient and cost-effective policy that can improve availability, sustainability, as well as discontinuation of antibiotic is lacking. In this study we explore the concept of antibiotic drug pooling as a means to reduce these challenges.

Methods: The mixed-methods study was undertaken in three public tertiary hospitals in Southeast Nigeria. Data was collected using three Focus Group Discussions (FGDs) with the children's caregivers and 16 In-depth interviews (IDIs) with physicians, nurses and pharmacists. In addition, the medical records of patients on admission were examined. Information on antibiotic use and challenges, their impression about pooling antibiotics and possible ways to improve on antibiotic availability and sustenance.

Results: Antibiotics were prescribed to 84.2% of the children. Amongst these prescriptions, 40% of the initial antibiotics were changed to another antibiotic. The major challenges that were encountered by all the caregivers was the cost of the antibiotics (85%). None of the caregivers were willing to submit their purchased drugs for pooled use by all the inpatients while the healthcare providers lauded the concept of drug pooling but sug-

gested how it can be improved: harmonized prescription, billing and unit-dose dispensing for the first 72 hours antibiotic treatment.

Conclusions: In conclusion, adoption of harmonized prescription pattern and billing as well as unit-dose dispensing for the first 72 hours antibiotic treatment will enhance antibiotic availability, sustainability and easy change or discontinuation when such need arises. It will also be reduced waste and improve time-out policy.

Key words: Antibiotic stewardship; Drug pooling, Time-out; Cost sharing

Mothers' and caregivers' perceptions of causes and treatment of fever and diarrhea among under-fives in Ile Ife

Babalola TE¹, Oyetoke TT¹, Oyeniyi KO³, Shittu AA⁴, Ijadunola KT², Salawu SA⁵.

¹Department of Paediatrics, ²Department of Community Health, Obafemi Awolowo University Teaching Hospitals, Ile-Ife.

³Department of Paediatrics, State Specialist Hospital, Asubiaaro, Osogbo

⁴Department of Surgery, University of Ilorin Teaching Hospital, Ilorin

⁵Department of psychiatry, Lagos University Teaching Hospital, Idi-Araba

Email: tolugifty@gmail.com

Introduction: Fever and diarrhoea account for a significant portion of infant and under-five mortality in Nigeria; despite child survival programs instituted to reduce this trend. This might be related to the perceptions of mothers and caregivers on the causes of these conditions in children, which could influence the treatment modalities that caregivers proffer.

Objective: To assess the perception of caregivers on the causes and treatment modalities of fever and diarrhoea in under-fives.

Methodology: The study was conducted among caregivers with under-fives in Ife central Local Government. Four wards were selected from the 11 wards in the Local Government.

Results: Most mothers perceived that fever could be caused by malaria, teething, hot weather, cough, with malaria the leading cause (29%). They perceived that diarrhea could be caused by teething, eating contaminated food, drink and water, dirty environment and feeding bottles with the commonest cause being teething (51.8%). The illness behavior of the caregivers was however poor, as most of them waited at least one day after the onset of fever and diarrhea before taking any action. The most frequent factor that influenced the choice of treatment modality was health education messages caregivers got from health workers and the mass media.

Conclusion: Caregivers had a fairly correct perception of the causes of fever, but had incorrect perceptions of the causes of diarrhea. Efforts should be directed at educating caregivers on the causes of diarrhea, as well as the appropriate treatment measures.

Keywords: Perceptions, Caregiver, Fever, diarrhea

Exposed to HIV infection's children survival: a five year cohort study in the tertiary pediatric ward of Parakou Teaching Hospital in the North of Benin

Adedemy JD, Agbeille MF, Agossou J, Noudamadjo A, Aïssou UI, Chabi OA.

Mother and Child Department, Faculty of Medicine, University of Parakou, Benin. PO Box : 02 Parakou Benin Republic

Email : kofadier@yahoo.fr

Introduction : PMTCT has been implemented since 2004 in Parakou teaching Hospital. Prevalence of HIV infection among general population is estimated at 1.2% in Benin. With 4.5% rate of HIV mother to child transmission, authors are analysing five year survival rate among these children followed up through PMTCT program in that setting.

Subjects and Methods: Through a cross-sectionnal descriptive and analytical study, which ran from may to september 2017, authors collected data from children aged 0 to 5 years followed up between 2010 and 2016. Sociodemographic, clinical, and immunological data were collected. Kaplan-Meier survival trend was used to assess 5 years survival trend and Relative Risk ratio was used to search for factors associated with death.

Results: A total of 121 children has been followed up. The mean age was 12 days of life and sex ratio 1.58. Among them, 93.81% were breastfed and 51.24% were weaned between 6-12 months. ARV prophylaxis was available for 87.60% of children and negative PCR1 found in 85.12%. At 18 months, 82.64% of children were alive and HIV serology was positive for 3% of them. Survival rate was stabilized around 0.80 at 38th till the 60th month. Death predictors among exposed to HIV children were children's age, mothers' profession and age, mothers' CD4 count, regularity in follow up and ARV prophylaxis. **Conclusion :** These results will help clinicians to monitor a better follow up plan of HIV exposed children.

Key words: PMTCT, exposed to HIV, Children, survival rate, survival trend.

Epidemiology, clinic and outcome of children presenting with cerebral malaria in children in a tertiary hospital in Parakou (Benin)

Adedemy JD, Agbeille Mohamed F, Agossou J, Noudamadjo A, Ngoume JJ.

Mother and Child Department, Faculty of Medicine, University of Parakou, PO Box : 02 Parakou, Benin Republic

Introduction: Cerebral malaria is the worst form of severe malaria in children and known to be caused by *P. falciparum*. Authors are reporting epidemiological, clinical profile and outcome of cerebral malaria in hospitalized children in Parakou.

Subjects and Methods: Through a prospective, descriptive and analytical study covering the period of march to august 2017, children aged 6 months to 15 years with severe neurological forms of malaria and admitted to the pediatric emergency ward of Parakou Teaching Hospital has been followed up. Sociodemographic, clinical and evolving data were registered. Odds ratio was used to identify factors associated with cerebral malaria and its outcome. Significant threshold was set up at p value of 0.05.

Results: A total of 604 children were admitted for severe malaria among which 28.5% presented cerebral malaria. The mean age was 33± 25 months. Sex ratio was 1.1. Convulsion and altered consciousness were the main reasons of admission (50.6 and 44.8%). Coma scales were severe in 68%. Raised intracranial pressure was found in 68.6% of cases. Hemiplegia was found sequelae in 2.3%. 15.7% of children died. Cerebral malaria was associated with lack of bednet usage (p= 0.000) and was most frequent in case of direct admission (p=0.007). Letality was associated to gender (p=0.004), severe anemia (p=0.002) and to raised intracranial pressure.

Conclusion: This work gives clinicians better understanding of factors associated with cerebral malaria and its outcome.

Key words: Cerebral malaria, Children, associated factors, coma, raised intracranial pressure.

Human Immunodeficiency Virus Status in Malnourished Children seen at Lagos.

Adeniyi OF, *Temiye EO, *Fajolu IB, *Ladapo TA, *Akinsulie AO, *Ogbenna AA, *Mabogunje CA, *Akinyode B*

**Department of Paediatrics, **Department of Haematology, College of Medicine, University of Lagos/Lagos University Teaching Hospital, Idi - Araba, Lagos.*

****Massey street Children's Hospital, Lagos*

Email: layo_funke@yahoo.co.uk

Introduction: Human immunodeficiency virus and protein energy malnutrition are still prevalent in Nigeria and the occurrence of the two conditions together confers a poor prognosis. The aim of this study was to determine the current categories of malnutrition amongst under 5 children in Lagos document their HIV status and describe any peculiarities in the clinical features, haematological and biochemical profile in these children.

Methods: The study was a prospective cross-sectional study conducted at the Paediatric department of the Lagos University Teaching Hospital and the Massey Street Children's Hospital over a 6 month period. All the subjects had anthropometry, HIV testing, full blood count and serum proteins done. The factors associated with HIV status were determined with the logistic regression analysis.

Results: 214 malnourished children 5 years were recruited into the study. 105 (49.1%) of the participants had moderate malnutrition while 25.2% had severe forms of malnutrition. Fever, cough and diarrhea were

the commonest symptoms. Severe wasting, oral thrush, dermatoses and splenomegaly were seen more commonly in the HIV positive subjects. The haematological indices were comparable in the two groups, however, the total protein was significantly higher in the HIV positive subjects compared to the negative group ($p=0.042$). Multivariate analysis showed that the total protein ($p=0.001$) and platelet count ($p=0.016$) could significantly predict the occurrence of HIV in the children

Conclusion: The presence of severe wasting, oral thrush, diarrhea, splenomegaly, thrombocytopenia and high total proteins in malnourished children should heighten the suspicion of possible underlying associated HIV infection. Mandatory screening of malnourished children for HIV infection is advocated.

Enablers of Adherence to Clinic Appointments for Children attending an Antiretroviral Clinic in Northern Nigeria: Perspectives of Caregivers and Care Providers

Musa S, Umar LW, Abdullahi FL, Abdullahi SM
Olorukooba AA, Taegtemeyer M*, Alfa AM,
Usman NH

Department of Paediatrics, Ahmadu Bello University
Teaching Hospital (ABUTH), Shika, Zaria, Nigeria
*Liverpool School of Tropical Medicine (LSTM),
Pembroke Place, Merseyside, Liverpool, L35QA, United
Kingdom
Email: asmaummama@gmail.com

Background: Nigeria has the highest burden of paediatric HIV infection and the success of control efforts in the country is crucial to the global control of the HIV epidemic. However, defaults from schedules of care poses a threat to paediatric HIV control in Nigeria. This study was conducted in a pioneer facility for the implementation of the National HIV Prevention and Treatment Programmes.

Objective: To explore factors that facilitate adherence to clinic appointments from perspectives of child caregivers and service providers.

Methods: This is a qualitative study using in-depth face-to-face interviews conducted in 2016. Thirty-five participants were purposely sampled to comprise types of caregivers of HIV exposed/infected children receiving care and from categories of service providers. The interviews were audio recorded, transcribed, thematically analysed and presented using a socio-ecological model.

Results: The themes that emerged from participants' narratives included advanced education, affluence and residing close to the clinic at the intrapersonal level. Stable family dynamics and support, HIV status disclosure and being a biologic parent or grandparent as caregiver emerged at the interpersonal level. At the community level, disclosure and support were identified, while at the health facility level positive staff attitude, quality of healthcare as well as peer support group influence were factors identified to facilitate regular clinic attendance.

Conclusion: The factors that enable retention of children in care are multidimensional and intricately connected. Programme improvement initiatives should include regular assessment of clients' perspectives to inform implementation of strategies that could reinforce caregiver confidence in the health system.

Key words: HIV, Exposed, Infected, Children, Adherence, Enablers Antiretroviral, Clinic care, Perspectives, Caregivers, Care providers,

Complementary Feeding Practices among HIV-Positive Mothers in Usmanu Danfodiyo University Teaching Hospital, Sokoto Nigeria

¹Yusuf T, ¹Jega MR, ¹Sanni AM, ¹Jibrin B, ²Ibrahim ST,
¹Onankpa BO, ¹Ugege MO, ¹Omar M.

Department of Paediatrics, ¹Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria
²NManagement Science for Health, Sokoto State Team Office, Sokoto, Nigeria.

Email: dimeji74@yahoo.com

Background: Appropriate complementary feeding is an effective lifesaving and child survival strategies for HIV-exposed infants. HIV-exposed children, especially in the developing world, face the challenge of appropriate and adequate nutrition during early childhood.

Objective: Determine the complementary feeding practices of HIV-positive mothers in UDUTH, Sokoto.

Methods: This descriptive observational study was conducted among HIV-positive mother-infant pairs attending Paediatric ART (PMTCT) clinic, UDUTH, Sokoto. A structured questionnaire was used to obtain data such as demographics and components of complementary feeding practices from randomly selected mother-infant pairs attending the clinic. The data were analysed using SPSS version 24.0. A p-value of 0.05 was taken as significant.

Results: One hundred and twenty-two (63.9%) of the respondents were aged 25-34years and 119(62.3%) were of low socio-economic class. One hundred and fifty-three (80.1%) of the children were exclusively breastfed for 6months. One hundred and thirty-nine (72.8%) of the children studied commenced complimentary feeding at 6month of age with the mean of 6.2(\pm 1.3) months. One hundred and fourteen (59.7%) used plain pap with 125(65.4%) fed more than 3 times per day. The mean age of cessation of breast feeding was 13.1(\pm 3.5) months. The quality of complementary food is influenced by maternal educational ($p=0.0001$) and socio-economic ($p=0.0001$) statuses. The timing of complementary feeding is influenced by maternal educational status($p=0.04$).

Conclusion: Introduction of complementary feeding was timely in the majority of the HIV-positive mothers but not optima. Efforts should be geared towards improving the complementary feeding practices among HIV-positive mothers in order to enhance the survival of HIV-exposed infants.

Key words: Complementary, Practice, HIV-Exposed.

Duration of Breast Feeding and Outcome of HIV-Exposed Infants attending Paediatric ART Clinic in Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria

¹Yusuf T, ¹Jega MR, ¹Sanni AM, ¹Jibrin B, ¹Ugege MO, ²Ibrahim ST, ¹Onankpa BO
 Department of Paediatrics, ¹Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria
²Management Science for Health, Sokoto State Team Office, Sokoto, Nigeria.
 Email: dimeji74@yahoo.com.

Background: Appropriate infant feeding is still a challenge to HIV-positive mothers especially in the developing world despite their desire to breast feeding beyond the WHO recommended 12 months duration.

Objective: Determine the duration of breast feeding and correlate with outcome of HIV-exposed infants in UDUTH, Sokoto.

Methods: This descriptive observational study was conducted among HIV-exposed infants attending Paediatric ART (PMTCT) clinic, UDUTH, Sokoto. The demographics, infant post-exposure prophylaxis, duration of breast feeding and results of early infant diagnosis (EID) of the infants using HIV-DNA PCR machine; and maternal HAART history were documented. The data were analysed using SPSS version 24.0. A p-value of 0.05 was taken as significant.

Results: One hundred and sixty-three HIV-positive mother-infant pairs were studied, 103(61.7%) of the HIV-positive mothers were aged 25-34 years, 105 (62.9%) were of low socio-economic class and 94 (56.3%) had informal education. One hundred and fifteen (62.5%) were on TDR/3TC/EFV and 143 (85.6%) were on HAARTs prior to the index pregnancy. All the HIV-exposed infants studied were breast-fed and 165 (98.8%) had nevirapine as infant PEP. The mean duration of breast feeding among HIV-exposed infants was 13.2(\pm 3.5) months with 98 (58.7%) beyond 12months. Maternal age ($p=0.03$) and socio-economic class ($p=0.03$) were associated with prolonged breast feeding among HIV-positive mothers. All the HIV-exposed infants were uninfected.

Conclusion: Majority of the HIV-positive mothers breastfed beyond WHO recommended 12 months and their infants were uninfected. This may support the upward review of the duration of breast feeding of HIV-exposed infants in our community.

Key words: Duration, Outcome, Breastfeeding, HIV-Exposed.

Five years survival rate among HIV infected children followed up in a tertiary pediatric ward of Parakou Teaching Hospital in the North of Benin

Agbeille MF, Adedemy JD, Agossou J, Noudamadjo A, Aisso UI, Chabi OA.
 Mother and Child Department, Faculty of Medicine, University of Parakou, PO Box : 02 Parakou Bénin Republic

Introduction: African continent is the most affected with HIV pandemic. The prevalence of the infection is (1.2%) in Benin. Children remain the hidden side of the pandemic. The authors are reporting assessment of five years survival rate among HIV infected children in tertiary pediatric ward of Parakou Teaching Hospital in Benin.

Methodology: Through a cross-sectionnal descriptive and analytical study, which ran from may to september 2017, authors collected data from children aged 2 to 19 years followed up in a tertiary hospital. Sociodemographic, clinical, and immunological data were gathered. Kaplan-Meier survival trend was used to assess 5 years survival trend and Relative Risk ratio used to search for factors associated with death.

Results: A total of 89 children has been followed up. The average age was 3 years and sex ratio 1.28. WHO stage 3 and 4 of HIV infection was found in 19.10% of cases. Diarrhoea (23.60%) and pneumonia (23.60%) were the most encountered opportunistic infections. CD4 count raised progressively under TARV (46.07 to 76.47%). Survival rate was about 74.16% from 2005 to the end of 2016. Survival trend varies from 0.96 (first month of follow up) to a stabilization trend of 0.74 on the 64th month. Factors associated with children's death were WHO clinical stage 4 ($p=0.001$), poor follow up ($p=0.007$) and poor nutritional status ($p=0.003$).

Conclusion: These results will help clinicians to monitor data for a better follow up of infected children.

Key words: HIV infection, Children, survival rate, survival trend.

Knowledge of Fever in Children and its Management among Health Workers in a Tertiary Hospital in South-East Nigeria

Nwaneli EI*, Ofiaeli OC*, Nri-Ezedi CA*,
 *Department of Paediatrics Nnamdi Azikiwe University Teaching Hospital, Nnewi
 Email: chisomnriezedi@gmail.com

Introduction: Fever is an adaptive response in humans. It is a common symptom in children with parents relying largely on health care workers for its management.

Objectives: To determine the knowledge of fever in children and practice of its management among health care workers in Nnamdi Azikiwe University Teaching Hospital (NAUTH), Nnewi.

Methods: A self-administered questionnaire was used for this descriptive cross-sectional study.

Results: A total number of 165 health care providers

were accessed: 20 lab scientists (12%), 21 pharmacists (12.8%), 56 nurses (34%) and 68 doctors (41.2%); with a mean age and work experience of 37 years and 9.6 years respectively. 58% of health care providers considered fever to be in the range of 37.8°C-38°C. In the diagnosis of fever, 58% of subjects use the thermometer while 42% prefer their hands. Majority of the participants (95.8%) preferred the axillary area in accessing for fever. To manage fever, 46.8% of workers use antipyretics with most preferred anti-pyretic as acetaminophen (66%): Syrup (33.9%), Tablet (32.2%). The leading complications of fever were seizures (32.6%) and dehydration (32.1%).

Conclusion/Recommendation: The knowledge of and management of fever in children among health care providers were inconsistent in this study. A positive outcome can be achieved through regular re-training programs and focused research.

Keywords: knowledge, practice, management, fever, children, health, workers, NAUTH

Clinical presentation of childhood tuberculosis in a nigerian hospital: what are the implications?

Gobir AA, Ibraheem RM, Johnson WBR
Muhammed SS, Oladele DM, Ojuola AO
Department of Paediatrics and Child Health, University of Ilorin Teaching Hospital, Ilorin
Email: aishaakarim@yahoo.com

Introduction: Estimates point to many undetected childhood TB cases. With advancement in diagnostics, the hope for improved case detection rests on patients presenting at appropriate points for care.

Objectives: This study was therefore designed to describe the symptoms of TB in children to document the point (s) of presentation before our centre and to determine the methods of diagnosis in children with TB.

Materials and Methods: This was a prospective cross-sectional study among all patients with TB managed in the paediatric clinic of UITH, Ilorin between January 1st, 2014 and December 31st, 2015. The centre has a DOTS facility. Diagnosis of tuberculosis was based on one or more of the following: identification of acid fast bacilli (AFB); other bacteriologic identification of mycobacterium tuberculosis; evidence of caseous necrosis and granulomatous changes on histology; clinical features suggestive of TB and response to anti-TB. All patients were screened for HIV. Data analysis was done using SPSS version 20.0.

Results: Seventy patients were seen. Cough, 61.4%, fever, 44.3% and weight loss/failure to thrive in 41.4% were the major symptoms. Chest X-ray showed abnormalities in 85.7%, 31.4% had reactive Mantoux, and 13 had Acid-Fast Bacilli seen; 88.6%) presented to a patent medicine vendor or shop owner, and 40 (57.1%) went to private health facilities.

Conclusion/Recommendation: Widening the net of those involved in TB care to include patent medicine stores and more private facilities will be important if more cases are to be detected.

The effect of HIV status non-disclosure on the family functionality of HIV infected children

*Jega MR, *Yusuf T, Falaki F⁺, Singh S⁺, *Adayi S
*Department of Paediatrics, Usmanu Danfodiyo University Teaching Hospital,
PMB 2370, Sokoto, Nigeria

⁺Department of Family Medicine, Usmanu Danfodiyo University Teaching Hospital,
PMB 2370, Sokoto, Nigeria.
Email: dimeji74@gmail.com

Background: A consensus view shared by most clinicians is that non-disclosure of HIV status to children may result in undesirable consequences like poor adherence to care and a disruption of family functions. Despite the probable occurrence of these negative effects, the prevalence of HIV non-disclosure to infected children and its effect on perceived family functionality is yet to be determined in Sokoto, north western Nigeria. **Methods:** The study cohort was a random sample of HIV infected children aged between 7 and 16 years who receive paediatric HIV care at the Usmanu Danfodiyo University Teaching Hospital, Sokoto. Semi-structured questionnaires were independently administered to HIV infected children and their care givers to assess socio-demographic characteristics, disclosure status, drug adherence and perceived family functionality. Statistical analysis was carried out using SPSS version 20 and a p-value of < 0.05 was taken to indicate statistical

s i g n i f i c a n c e .
Results: Seventy-three children-caregiver pairs were interviewed. The mean child age was 10.9 ± 2.2 years, and majority were males. Less than a third of children had been informed of their status. Children with non-disclosure status were more likely to have poor drug adherence (p = 0.03) and they perceived their family as being dysfunctional (p = 0.01). **Conclusion:** A worrying trend of non-disclosure among children attending paediatric HIV care in Sokoto, north western Nigeria exists and this may have a detrimental effect on how these children perceive the functional status of their family. Of equal concern is the poor adherence observed in children with non-disclosure status. Thus, guiding care givers through developmentally appropriate disclosure process should be a key component of paediatric HIV care in Sokoto.

The prevalence and spatial distribution of urogenital schistosomiasis among primary school pupils in argungu lga, Kebbi state, north western Nigeria

*Jega MR, *Hamid A, *Jiya NM, ⁺Mungadi I
[†]Yahaya M, [‡]Shuaib U, [°]Falaki M, Ahmad M, Falaki F
*Departments of Paediatrics, ⁺Department of Urology,
[†]Department of Medical Microbiology and [‡]Department of Family Medicine, Usmanu Danfodiyo University Teaching Hospital, PMB 2370, Sokoto, Nigeria.
Center for spatial information science, Ahmadu Bello University, Zaria, Nigeria.
Email: jegaridwan@yahoo.com

Background and aims: Knowledge of the distribution of urogenital schistosomiasis among pupils is required for targeted chemotherapy. Despite the presence of exposure risks in Argungu, North-western Nigeria, prevalence maps that aid disease control are non-existent. In this study, we aim to determine the prevalence and spatial distribution of urogenital schistosomiasis among pupils in Argungu.

Methods: A prospective descriptive study among 840 pupils, aged 5-15 years. Information on pupils' socio-demographic characteristics, exposure risks and microscopic examination of their urine samples were undertaken to determine the existence *Schistosoma haematobium* infection. Pupils' found to be infected were treated with praziquantel, had a urine microscopy repeated six weeks later and the geographic co-ordinates of their schools, residence and the location of the nearest surface water body spatially analyzed.

Results: Of the 840 pupils studied, 23.3% had urogenital schistosomiasis. Infection was highly associated with gender, socio-economic status and the absence of a functional school latrine ($p < 0.05$). Surface water contact related activities by pupils' increased the odds of infection ($p < 0.05$). Logistic regression found that gender ($p = 0.04$; 95% CI 0.491, 0.984) and the absence of a functional school latrine ($p = 0.008$) increased the odds for infection. Post-treatment, of the 95.4% pupils re-examined, 91.4% were cured. Spatial analysis revealed the disease to be non-randomly distributed and more prevalent among pupils living close to a river.

Conclusion: Urogenital schistosomiasis is endemic among pupils in Argungu and this warrants its inclusion as a disease of public health importance in the area.

Paludisme congénital au CHUDB/A en 2017 : Mythe ou réalité ?

Agossou J*, Noudamadjo A*, Agbeille MF*, Adedemy JD*, Houffon R*

*Département Mère-Enfant de la Faculté de Médecine de l'Université de Parakou et Service de Pédiatrie du Centre Hospitalier Universitaire Départemental du Borgou/Alibori BP 02 Parakou-Benin
Email: agossoujoseph@gmail.com

Introduction: La survenue du paludisme est décrite classiquement comme rare ou exceptionnelle en période néonatale. L'objectif de ce travail était de décrire les aspects épidémiologiques, diagnostiques, thérapeutiques et évolutifs du paludisme congénital au Centre Hospitalier Universitaire Départemental du Borgou/Alibori (CHUD B/A) à Parakou.

Patients et Méthodes: Il s'agissait d'une étude transversale et descriptive menée dans l'unité de néonatalogie du CHUD B/A de Janvier à Août 2017. Elle a inclut tous les nouveaux nés de moins de huit jours ayant une goutte épaisse positive. Les comorbidités ont été prises en compte pour établir avec précision le diagnostic de paludisme congénital.

Résultats: Au total, 141 nouveau-nés avaient une goutte épaisse positive à *Plasmodium falciparum* sur 723 nou-

veaux nés admis soit une fréquence hospitalière de 19,5%. Le sex ratio était 1,19. L'âge moyen était de 1jour. Le paludisme était associé l'infection bactérienne dans 49 cas (34,7%) et à d'autres comorbidités dans 21 cas (14,8%). Parmi les 71 cas de goutte-épaisse positive pris isolément, les principaux motifs d'admission étaient : la souffrance néonatale immédiate (32,4%), la prématurité 18,1%), la fièvre (16,9%) et le faible poids de naissance (12,6%). De même, les principaux signes retrouvés à l'examen physique étaient: les anomalies neurologiques (40,8%), la détresse respiratoire (35,2%), l'hyperthermie (21,1%) et l'ictère (11,2%). La parasitémie moyenne était de 499p/µl. Le traitement était basé sur les dérivés de l'artémisinine. L'évolution était favorable dans 87,1% des cas. La mortalité globale était 12,9% et la létalité spécifique de 8,4% (6/71).

Conclusion: Le paludisme congénital est une réalité au CHUB/A. Il devient impérieux de reconnaître cet état et d'envisager des moyens novateurs et efficaces de prévention.

Mots clés: Nouveau-né, paludisme congénital, prévention, Parakou, Bénin.

Congenital malaria in the CHUDB/A in 2017: myth or reality?

Agossou J*, Noudamadjo A*, Agbeille Mohamed F*, Adedemy JD*, Houffon R*

*Department mother-child of the Faculty of Medicine of the University of Parakou and Service of Paediatrics of Centre Hospital University departmental of Borgou/Alibori BP 02 Parakou-Benin
Email: agossoujoseph@gmail.com

Introduction: The occurrence of malaria is described classically as rare or exceptional in the neonatal period. The objective of this work was to describe the aspects of epidemiological, diagnostic, therapeutic and outcome of congenital malaria at the Centre Hospital University departmental of Borgou/Alibori (CHUD (B/A) to Parakou.

Materials and methods: It is a cross-sectional and descriptive study conducted in the unit of Neonatology of the B/A CHUD from January to August 2017. Elle has included all newborns of less than eight days having a drop thick positive. Comorbidities was taken into account to establish with precision the diagnosis of congenital malaria.

Results: In total, 141 newborns had a drop-thick positive *Plasmodium falciparum* on 723 newborns admitted to a hospital rate of 19.5%. The sex ratio was 1.19. The average age was 1 day. Malaria was associated with bacterial infection in 49 cases (34.7%) and other Comorbidities in 21 cases (14.8%). Among the 71 cases of drop-thick positive isolation, were the main reasons for admission: immediate neonatal pain (32.4%), prematurity 18.1%), fever (16.9%) and low birth weight (12.6%). Similarly, the main signs found on physical examination were: neurologic abnormalities (40.8%), respiratory distress (35.2%), hyperthermia (21.1%) and jaundice

(11.2%). The average parasitaemia was 499p/μl. The treatment was based on artemisinin derivatives. The outcome was favourable in 87.1% of the cases. The overall mortality was 12.9% and specific lethality of 8.4% (6/71).

Conclusion: Congenital malaria is a reality in the CHUB/A. It becomes imperative to recognize this and consider innovative and efficient prevention ways.

Key words: Newborn, congenital malaria, prevention, Parakou, Benin.

A study of group -A streptococcal pharyngitis among 3 – 15year old children attending clinics for an acute sore throat

Uzodimma CC¹, Dedek F¹, Nwadike V¹, Owolabi O¹, Arifalo G², Oduwole O³,

FMC, Abeokuta, Ogun state

State General Hospital, Ijaiye, Abeokuta, Ogun state

Sacred Heart Hospital, Lantoro, Abeokuta, Ogun state

Background: Group A beta-hemolytic Streptococcus (GABHS) is the only causative organism of pharyngitis that is linked to the aetiopathogenesis of acute rheumatic fever and rheumatic heart disease.

Aim and Objectives: The objectives of the study were to determine the proportion of GABHS-related pharyngitis, the relationship of clinical symptoms and signs with positive culture outcome, and the antibiotic sensitivity pattern of GABHS among children aged 3-15years, presenting with symptoms of sore throat in three public Hospital settings across Abeokuta.

Methods: Consecutive children aged 3-15 years who present with sore throat or drooling of saliva and any one of these following signs and symptoms were considered eligible; fever >37.5C, cervical lymphadenopathy, inflamed tonsils, and exudative tonsils. All bacitracin susceptible Gram-positive, catalase-negative cocci were classified as *Streptococcus pyogenes*

Results: Of 3,386 children that were seen, thirty (30) children met the eligibility criteria. Sixteen (53.3%) were males while 14 (46.7%) were females. The mean age of the subjects was 7.37years ± 3.146. Cough was the most sensitive symptom (65%) while the presence of exudate was the most specific sign (70%) for GABHS acute sore throat. Group A beta- haemolytic streptococcus (GABHS) was isolated in 66.7% of the children. *Streptococcus Viridans* was found in 4 (13.3%) while the remaining 6 (20%) were sterile. The highest sensitivity was shown to gentamicin and chloramphenicol while amoxicillin-clavulanic acid had the highest resistance (94%).

Conclusion: The proportion of GABHS throat infection is high in this environment. The current findings underscore the need to increase awareness about appropriate throat examination and treatment of sore throat among primary care physicians.

Key word: Sore throat, Group A- beta-haemolytic streptococcus, children, rheumatic heart disease

HIV Antibody Reversion following Post Exposure Prophylaxis in a Child Transfused with Infected Blood

Ibeh JN¹, Oladokun R^{1,2}, Ademola AD^{1,2}, Asinobi A^{1,2}

Univesity College Hospital, Ibadan, Nigeria

College of Medicine, University of Ibadan, Ibadan, Nigeria

Email: joyzmail2002@yahoo.com

Background: Guidelines are clear on post exposure prophylaxis (PEP) after occupational and non-occupational exposure to HIV but very little is documented on preventive modalities following transfusion with HIV infected blood. We report the case of a toddler with reactive HIV antibody test following blood transfusion, who received PEP with subsequent sero-reversion.

Case review

A 22-month-old boy with severe malaria and sepsis had received blood transfusion in private health facility two days before presentation. He had fever, seizures, coke coloured urine and oliguria. There were no previous admissions, surgeries, blood transfusions, scarification marks or sexual abuse. HIV antibody test at our facility was positive. Both parents tested negative. PEP was commenced using Zidovudine, Lamivudine and Efavirenz. Baseline HIV DNA PCR was negative. He underwent multiple cycles of peritoneal dialysis. In addition to the acute kidney injury from the primary illness, he developed ear discharge and anterior abdominal wall abscess. He made a remarkable recovery. A repeat antibody test after 6 weeks of PEP was non-reactive, DNA PCR remained negative and viral load was undetectable. His CD4 count improved from 209/mm³ (16.75%) to 1198/mm³ (27%). PEP was discontinued thereafter.

Conclusions: Blood transfusions are lifesaving but access to safe blood remains a major problem in the developing world particularly in regions with a high prevalence of HIV infection. In the event of unsafe transfusion, guidelines are required and may be instrumental in preventing established HIV infection.

Keywords: HIV, Post exposure prophylaxis, blood transfusion, sero-reversion

Enablers of adherence to clinic appointments for children attending an antiretroviral clinic in Northern Nigeria: Perspectives of Caregivers and Care Providers

Musa S, Umar LW, Abdullahi FL, Abdullahi SM,

Olorukooba AA, Taegttemeyer M, Alfa AM*

Usman NH

Department of Paediatrics, Ahmadu Bello University Teaching Hospital (ABUTH), Shika, Zaria, Nigeria

**Liverpool School of Tropical Medicine (LSTM),*

Pembroke Place, Merseyside, Liverpool, L35QA, United Kingdom

Email: asmaummama@gmail.com

Background: Nigeria has the highest burden of paediat-

ric HIV infection and the success of control efforts in the country is crucial to the global control of the HIV epidemic. However, defaults from schedules of care poses a threat to paediatric HIV control in Nigeria. This study was conducted in a pioneer facility for the implementation of the National HIV Prevention and Treatment Programmes.

Objective: To explore factors that facilitate adherence to clinic appointments from perspectives of child caregivers and service providers.

Methods: This is a qualitative study using in-depth face-to-face interviews conducted in 2016. Thirty-five participants were purposely sampled to comprise types of caregivers of HIV exposed/infected children receiving care and from categories of service providers. The interviews were audio recorded, transcribed, thematically analysed and presented using a socio-ecological model.

Results: The themes that emerged from participants' narratives included advanced education, affluence and residing close to the clinic at the intrapersonal level. Stable family dynamics and support, HIV status disclosure and being a biologic parent or grandparent as caregiver emerged at the interpersonal level. At the community level, disclosure and support were identified, while at the health facility level positive staff attitude, quality of healthcare as well as peer support group influence were factors identified to facilitate regular clinic attendance.

Conclusion: The factors that enable retention of children in care are multidimensional and intricately connected. Programme improvement initiatives should include regular assessment of clients' perspectives to inform implementation of strategies that could reinforce caregiver confidence in the health system.

Key words: HIV, Exposed, Infected, Children, Adherence, Enablers Antiretroviral, Clinic care, Perspectives, Caregivers, Care providers,

Children are not virally suppressed 6 months and beyond on HAART: any implications for the ART programme in Nigeria?

Isaac WE¹, Jalo I¹, Alkali Y¹, Ghidazuka Y¹, Ajani A¹, Oyeniyi C¹, Lano M¹, Popoola A¹, Ebisike K¹, Wariri O¹, Aliu R¹, Girbo A¹, Raymond M¹, Ndubuisi V¹, Bakari H¹, Umar A¹, Olatoke L¹, Burak V¹, Hassan K¹, Richard E¹, Tukur H¹, Rabo Y¹, Ezra D¹, Bakura H¹, Daniel A¹, Massa A², El-nafaty A², Yahaya UR², Yahaya MD², Melah GS², Manga M³, Kudi A³, Danlami H³, Charanchi M³, Medina E⁴

¹Department of Paediatrics, ²Department of Obstetrics and Gynaecology ³Department of Microbiology, Federal Teaching Hospital, Gombe, ⁴Centre for integrated health Programme, Gombe.

Introduction: The National implementation plan for the scale up of viral load testing in Nigeria and ART treatment guidelines were launched in 2016. Viral load determination is the most important indicator of ART

response.

Aims: To determine the first viral load result in children on ART

Methods: Results of first viral load tests in 320 CLHIV aged 0-18 on ART were analyzed.

Results: Males were 42.5% (136/320) and 56.3% (180/320) females. Reason for viral load request was routine in 90.0% (288/320); Suspected clinical and immunological failure in 5.3% (17/320) and 3.8% (12/320) respectively. 84.1% (269/320) were on first line ART. First line combinations were AZT/3TC/NVP 60.0% (192/320) and TDF/3TC/EFV 16.6% (53/320). 320 HIV positive children had received ART; 8.4% (27/320) for >1 year; 51.9% (166/320) between 1 and 5 years; 24.1% (77/320) between 6 and 10 years; 2.2% (7/320) for >10 years and 13.4% not indicated. Viral load was undetectable in 22.5% (72/320) of HIV positive patients; <1000c/ml in 27.8% (89/320) and >1000c/ml in 48.8% (156/320). 52% (14/27) of children on ART for > 6 months but <1 year had VL of >1000c/ml; 44.5% (74/166); 54.5% (42/77); and 42.8% (3/7) had VL >1000c/ml after 1 to 5 years, 6 to 10 years and >10 years of ART respectively.

49% (94/192) of children on AZT/3TC/NVP and 43.3% (23/53) on TDF/3TC/EFV had VL >1000c/ml after at least 6months of these ART combinations.

Conclusion: Almost half of children on HAART are not virally suppressed. Key considerations are poor adherence and/or primary viral resistance.

Prevalence of antiretroviral treatment failure and associated factors in HIV infected children on first line antiretroviral therapy in National Hospital Abuja

Oyesakin AB, Ulonnam CC, Olaniyan FO
Maidamma S

Background: Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency syndrome (AIDS) is a global pandemic affecting about 2.1 million children by the end of 2016. Following the introduction of antiretroviral therapy (ART), there has been a significant decrease of HIV-related illness and death. The success achieve with ARV usage has been compromised by several factors leading to treatment failure in HIV infected children on treatment.

Aims: This studies aim to describe the prevalence of treatment (clinical, virology and immunological) failure and describe some factors that may be associated with treatment failure in HIV infected children at the National Hospital Abuja.

Methods: A retrospective study carried out at the Anti-Retroviral Therapy Clinic of the Department of Paediatrics, National Hospital, Abuja. The study was conducted from October to December 2017. Case files of HIV infected children were obtained after ethical approval was given for the study. Inclusion Criteria were; age below sixteen years, History of First line ARV usage for at least 12 months and a minimum of two CD4 count and

viral load result within twelve months after commencement of ARVs. A proforma was used to obtain information on biodata- age, social class, mother's education status, CD4 count and Viral Load at base line and at 12 months after initiation of treatment, WHO stage of the disease, presence of tuberculosis (TB) coinfection within the past 12 months and adherence record. Data obtained was analyzed with SPSS.

Results: The HIV infected children who were analyzed were 135. The mean age (\pm SD) was 11.50 (\pm 3.31) years. There were 74 males (54.8%) with a male to female ratio of 1.2:1. The children who were of social class 1, 2 & 3 were 41(30.4%), 40(29.6%) and 43 (31.9%) and social class 4 and 5 were 7(5.2%) and 4 (3.0) respectively. The mothers with tertiary education were 67(49.6%) while 7(5.2%) had no formal education. There were 13(9.6%) with TB opportunist infection within the last twelve months. Adherence was good in 86 (63.7%) of the subjects. The subjects in stage 3 and 4 were 51(37.8%) and 15(11.1%). The mean CD4 count (\pm SD) of the subjects was 972.19 (\pm 1872.71) cell/mm³ and the mean Viral load (\pm SD) was 24469.58 (\pm 83189.86) copies/ml. The prevalence of clinical, immunological and virology treatment failure were 25 (18.5%), 9 (6.7%) and 89 (65.9%) respectively. Clinical treatment failure was significantly associated with TB co-infection ($\chi^2=7.281$, df 1, $p=0.016$) and poor adherence record ($\chi^2=18.670$, df=2, $p=0.000$), immunological treatment failure was significantly associated with gender ($\chi^2=4.520$, df 1 $p=0.033$) and poor adherence record ($\chi^2=7.835$, df =2, $p=0.020$) while virology failure was significantly associated with TB co-infection ($\chi^2=7.915$, df=1, $p=0.005$) and poor adherence record ($\chi^2=37.947$, df=2, $p=0.000$).

Conclusion: There is a high prevalence of clinical and virology treatment failure in HIV infected children. Gender, presence of TB- co-infection, and poor adherence record are determinant of treatment failure in HIV infection.

Keyword: HIV infected children, treatment failure, opportunist infection, adherence.

Paediatric Tuberculosis May Still Be Under Diagnosed and Under Treated

Garba BI, Muhammad AS, Yusuf I, Ibrahim TM, Ahmad MM, Yusuf T, Onazi SO

¹Department of Paediatrics, ²Department of Medicine, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Sokoto State. ³Department of Paediatrics, Ahmad Sani Yariman Bakura Specialist Hospital (ASYBSH), Gusau, Zamfara State. ⁴Directly Observed Treatment Short course (DOTS) clinic, ASYBSH, Gusau, Zamfara State. ⁵Federal Medical Centre, Gusau, Zamfara State

Background: Tuberculosis (TB) is a chronic infectious disease that is preventable and curable, yet a major cause of childhood morbidity and mortality. Tuberculosis prevalence and mortality are under-estimated in many high burden countries. DOTS enhance treatment

outcome with overall reduction in morbidity and development of multidrug resistant TB. **Objective:** To determine the pattern and outcome of childhood tuberculosis managed at the DOTS clinic in Gusau, Zamfara State.

Methodology: A retrospective study of children managed for TB at the DOTS clinic of ASYBSH, Gusau, Zamfara State, over a 30 months period (January 2015 to June 2017). The clinic serves both children and adults. All children (<18years) treated for tuberculosis over the study period were included. Relevant information from the register were retrieved and analysed accordingly. Treatment outcomes were assessed according to WHO and NTLCP guidelines. "Cured" and "treatment completed" outcomes are classified as

t r e a t m e n t s u c c e s s f u l .

Results: Of the 415 patients managed, 76(18.3%) were children; males were 30(39.5.2%), with a M: F ratio of 1:1.5. Mean \pm SD age was 8.89 \pm 5.38 years, with 29 (38.2%) being in the 0-5 years age group. Pulmonary TB was seen in 58(76.3%), more females had pulmonary TB than males, which was not significant ($\chi^2=1.350$, $p=0.245$). Seventy five (98.7) were new cases, with (1.3%) treatment after failure. Acid fast bacilli were positive in 12(15.8%) while Xpert MTB/RIF Sensitivity was detected in 7(9.2%). Majority 51(67.1%) completed treatment, 12(15.8%) were cured, 9(11.8%) were transferred out, 3(3.9%) died, while 1(1.3%) was lost to follow up; with successful outcome of 82.9%. **Conclusion:** Treatment outcome using DOTS strategy was good, with a success rate close to 85% of WHO benchmark. However, as compared to the adult cases, the proportion of childhood TB appears low which may be attributable to under diagnosis and under treatment in o u r c e n t r e .

Key words: childhood, DOTS, Gusau, tuberculosis, outcome

Extracranial and Intracranial Abscesses in Children at Ile-Ife: A Case Series

Oluwatosin EO¹, Onyia C², Elusiyan JBE¹

Saheed BAO¹, Ugowe O³, Babalola T,³ Ibitoye S⁴,

¹Department of Paediatrics and Child Health, Obafemi Awolowo University (OAU), Ile-Ife Nigeria.

²Neurosurgery Unit, Lagoon Hospital, Lagos, Nigeria.

³Department of Paediatrics, Obafemi Awolowo University Teaching Hospital Complex (OAUTHC), Ile-Ife, Nigeria.

⁴Department of Paediatrics, Federal Medical Centre, Owo, Nigeria.

Email: doc_tosino@yahoo.com

Background: Central Nervous System Infections are significant causes of morbidities and mortalities in children with some being prone to the development of abscesses which can either be within the brain parenchyma or located in extracranial structures.

Objectives: To describe the profile and outcome of children with extracranial and intracranial abscesses at the OAUTHC.

Methods: Consecutive cases presenting at the Children Emergency Ward of OAUTHC Ile-Ife were recruited. The pattern of presentation, predisposing factors and outcome of these children were studied.

Result: Among the 641 children admitted during the six-month period of the study, only six children were diagnosed with cranial abscess giving an hospital prevalence of 0.9%. The mean age of the subjects was 8.3 ± 3.4 years with an equal male to female ratio. Fever, headache and altered sensorium were the most common symptoms, with the mean duration of symptom prior to presentation being 12.7 ± 13.4 days. Five (83.3%) of the patients had intracranial abscesses which were multiple in two (33.3%) children. The only patient with extracranial abscess had Pott's Puffy tumour following frontal sinusitis. Route of infection was haematogenous in half of them; by direct spread (Otitis Media and Sinusitis) in two (33.3%) and via head trauma in one of the patients. Two of the patients died with a case fatality rate of 33.3%.

Conclusion/ recommendation: Though uncommon, extracranial and intracranial abscesses remain life threatening in children. Early presentation, early treatment of infections involving contiguous structures and prompt management with good access to neuroimaging and neurosurgical facilities will improve outcome.

Trends in loss-to-follow-up at a Tertiary Paediatric HIV Treatment Centre in Northern Nigeria

Umar LW, Musa S, Abdullahi FL, Garba MA, Gebi UI*
Department of Paediatrics ABU Teaching Hospital
Zaria, Nigeria

*Friends for Global Health, Abuja, Nigeria
Corresponding Author: Dr. Sani Musa,
Department of Paediatrics, ABUTH Shika
Email: asmaummama@gmail.com

Background: Loss-to-follow-up (LTFU) is a serious challenge to the success of HIV control worldwide and threatens to reverse the gains of increased access to HIV care in Nigeria. Knowledge of the extent of LTFU could help inform evidence-based strategies for improved retention in care.

Objective: To evaluate the magnitude of LTFU at a pioneer Paediatric Antiretroviral therapy (ART) Clinic.

Subjects and Methods: This was a retrospective analysis of clinic attendance records for HIV infected and exposed Children 0-14 years from January 2008 to December 2016. Results were presented as aggregate figures and proportions.

Results: The total number of children enrolled into the Clinic care was 454, consisting of 254 males and 200 females, with a ratio of 1.27:1. By the end of December 2016, 239 were lost to-follow-up, out of which 128 were males and 111 females, giving a cumulative LTFU rate of 52.6%. The annual rates of LTFU were 7%, 16%, 9%, 36%, 53%, 48%, 15%, 44% and 36% for successive years from 2016 to 2008 respectively. The total number of clients initiated on ART was 391, with 200 males and 191 females, out of which 187 (96 males and 91 fe-

males) were still on ART as at December 2016. There were no records of those successfully tracked but four mortalities were reported and six clients transferred to other facilities. Those who have transited to the adult clinic were among those retained.

Conclusion: The rate of LTFU is abysmally high. This preliminary finding informs a dire need for qualitative studies to explore the reasons for LTFU in ART care facilities.

Key words: Children; ART care; Loss-to-follow-up; Magnitude; HIV infected, HIV exposed; Nigeria.

An unusual pathogen in humans – *Edwardsiella ictaluri*

Adepoju AA, Adelaja AO
University College Hospital Ibadan¹, College of
Medicine University of Ibadan²

Background: Dysentery is a diarrhoeal episode in which the loose or watery stool contains visible blood. It is often caused by infectious agents ranging from bacteria to protozoa. Causes include *Shigella* species, *Salmonella* species or enterohemorrhagic *Escherichia coli* and *Entamoeba histolytica*.

Edwardsiella ictaluri belongs to the Enterobacteriaceae family, a gram negative short pleomorphic bacilli which affects fish species only and causes enteric septicaemia of catfish and other species of fish, therefore it is not zoonotic.

Case review: A 5 year old boy who presented with fever, vomiting, passage of bloody stool of 6 days and abdominal pain of a day duration.

Family eats catfish occasionally and last consumption of catfish was about 3 weeks before the illness. No history of similar symptoms in other members of the family.

On examination, He was acutely ill, febrile (Temperature 38.1 C), not pale with generalised abdominal tenderness and guarding but no rebound tenderness. Hepatomegaly 4cm, bowel sound normoactive.

Other systems were normal.

Initial diagnosis of acute dysentery R/O typhoid fever was made.

Blood culture grew *Edwardsiella ictaluri*, sensitive to gentamycin, levofloxacin, ceftriaxone, cefuroxime, augmentin.

He had 1 week of IV ceftriaxone 100mg/kg/day, symptoms resolved on the 5th day of treatment.

Repeat blood culture was sterile after 5 days of incubation.

Conclusion: Although, *Edwardsiella ictaluri* has not been reported in humans, could this be the first case? A closely related species *Edwardsiella tarda* which is rare but fatal has been identified as a cause of severe food and water borne infection in humans.

Key words: Dysentery, Zoonotic, Septicaemia, Pleomorphic

Severe Necrotising Pneumonia in a Toddler: A Rare Presentation with Dual Bacterial Aetiology

Garba MA, Umar LW, Akeredolu F, Mayaki S
Makarfi HU

Infectious Disease Unit, Department of Paediatrics,
Ahmadu Bello University Teaching Hospital, Zaria,
Nigeria.

Email: drkaita@yahoo.com

Introduction: Necrotizing pneumonia is a rare entity associated with severe morbidity and mortality but reported consistently with single bacterial aetiology. Multiple bacterial aetiology predicts worse pathology with fulminating clinical course. Reports of necrotizing pneumonia from multiple bacterial infections are scanty in published literature.

Objective: To report a case of severe necrotizing pneumonia with dual bacterial aetiology.

Case report: A.M, a three-year old toddler presented with ear discharge for three weeks, fever, breathlessness, cough and haemoptysis for ten days. He was referred from a private facility where he received antibiotics and blood transfusion. He was found to be underweight, tachypnoeic, tachycardic, with bilateral crepitations and tender hepatomegaly. With a diagnosis of severe bronchopneumonia antibiotics, oxygen and supportive care were commenced, to which he responded poorly with persistent symptoms over the first week. Specimen culture results obtained later yielded *Klebsiella pneumoniae* and *Staphylococcus aureus*, while tests for HIV and tuberculosis were negative. Antibiotics were changed from the 2nd week but he remained persistently hypoxic with progressive lung parenchymal destruction on imaging. Subsequently, his condition began to gradually improve and by the 5th week cough and haemoptysis subsided with sustained symptoms resolution till discharge. He maintained improvement thereafter with progressive lung re-expansion over four weeks.

Conclusion: Necrotizing pneumonia should be considered in children with recurrent haemoptysis, fulminant course and poor response to standard treatment. The turbulent clinical course requiring prolonged hospital care and the isolation of dual organisms documented to independently cause lung parenchymal damage strongly suggests concomitant pathology by both organisms.

Key words: *K. pneumoniae*, *S. aureus*, Child, Necrotising pneumonia

Relationship between renal size as determined by ultrasonography and body mass index in apparently healthy primary school children in Port Harcourt

Uchenwa TA¹, Anochie IC¹, Okafor HU²
Maduforo OC³, ¹Department of Paediatrics, University
of Port Harcourt Teaching Hospital, Port Harcourt.

²Department of Paediatrics, University of Nigeria
Teaching Hospital, Enugu, ³Department of Radiology,
University of Port Harcourt Teaching Hospital, Port
Harcourt.

Email: tochiuchenwa@yahoo.com

Introduction: Renal size is an important parameter in evaluation and management of a child with kidney disease. Establishing the normal limits of renal sizes standardized against somatometric parameters will be a useful tool in detecting probable renal diseases in children.

Aim: To determine renal sizes in relation to BMI in apparently healthy primary school children in Port Harcourt.

Methods: The study design was cross sectional and a multistage sampling technique was used to recruit 455 children aged 6-12 years. Renal ultrasonography was carried out using a portable DP 1100 PLUS real time ultrasound machine fitted with 3.5MHz probe. The length, width and anteroposterior diameter of the kidneys were measured and renal volume calculated. The BMI percentile for age and sex were obtained. The renal sizes were correlated with somatometric parameters and regression equations derived.

Results: The overall mean renal length of the right and left kidneys were 81.5±7.4mm and 80.9±7.6mm while the mean renal volume were 52.1±15.4 cm³ and 52.2±15.4 cm³ respectively. The renal length and volume increased at a rate of 1.372mm and 1.951cm³ per year and at a rate of 0.067mm and 0.176cm³ per one percentile increase in BMI respectively. The regression model derived for predicting renal length in mm = 65.731 + (1.372 Age X) + (0.067 BMI percentile X) while that for renal volume in cm³ = 26.386 + (1.951 Age X) + (0.176 BMI percentile X), (Where X is the independent variables: age in years and BMI in percentile).

Conclusion: BMI has a significant positive linear relationship with renal length and volume. The renal length and volume increased at a rate of 0.067mm and 0.176cm³ respectively for every one percentile increase in BMI.

Key words: Ultrasonography, renal sizes, body mass index, children

Impact of socioeconomic status on access to dialysis in a paediatric nephrology unit, in south western Nigeria

Lawal TA,¹ Asinobi AO,^{1,2} Ademola AD^{1,2}
Department of Paediatrics, University College Hospital,
Ibadan,¹ College of Medicine, University of Ibadan.²
Email: tope_lawal@yahoo.com

Introduction: Payment for services remains out of pocket in most patients presenting to health facilities as health insurance schemes are not available and accessible to all. Hence, in children who require dialysis there is a delay in commencement of dialysis as caregivers' ability to provide materials needed for dialysis is hampered by financial constraints.

Objectives: To describe the socio-economic status of parents of patients requiring dialysis. To document time to access of dialysis.

Methods: This is a retrospective cross-sectional study, the records of 37 patients who had dialysis over a 10 month period (January – October 2016) was reviewed.

The Ogunlesi classification of socio-economic status was used. The class of the children was assigned from I-V based on the score of parents' educational status and occupation.

Results: Of the 37 patients who had dialysis, eleven children had peritoneal dialysis (PD). About 39% of fathers' had bachelor's degree or its equivalent, while based on occupational status, 60% of mothers' were in Class III. Half of the children belonged to class III, 41% were in class IV and none in class I.

Dialysis was commenced on the same day as need was established in 27% of children and 59.5% commenced dialysis between day 2 and 4.

For patients who required PD, all had improvised catheter used as appropriate catheters are not readily available.

Conclusion: A major determinant of timely and appropriate access to renal care in low income settings is socioeconomic status of the caregiver.

Keywords: socioeconomic status, parents, dialysis, children.

Community acquired acute kidney injury among children at Usmanu Danfodiyo University Teaching Hospital, Sokoto

Jiya FB, Ibitoye PK, Jiya NM, Jibrin B, Adamu A Isezuo KO, Obasi I

Department of Paediatrics, Usmanu Danfodiyo University Teaching Hospital, Sokoto

Email: fatimabellojiya@gmail.com

Background: Acute kidney injury (AKI) remains an important cause of morbidity and mortality particularly in developing countries. Community acquired forms are more prevalent in our setting, due perhaps to high occurrence of infectious diseases of relevance to the development of AKI.

Objectives: To determine the prevalence, pattern and outcome of AKI among children at Usmanu Danfodiyo University Teaching Hospital (UDUTH) Sokoto.

Methods: This was a 2- year retrospective descriptive study from September 2015 to August 2017. Cases were children aged below 15 years admitted into Emergency Paediatric Unit (EPU) with diagnosis of AKI using kidney disease improving global outcome criteria. Relevant information from their case folders were extracted into a profoma sheet and data was analyzed using SPSS version 20.

Results: Thirty-six (1.0%) of the 3493 admissions had diagnosis of AKI. Males were 22(61.1%) and females were 14(38.9%), with M:F ratio 1.5:1. Mean age at presentation was 2.47 ± 1.4 years. Majority 20(55.6%) were of low socioeconomic class. Commonest clinical presentations were body swelling 22 (61.1%) and anuria 14 (38.9%). Majority 21(58.3) had AKI stage 3. Commonest diagnoses were Acute glomerulonephritis 10(27.8%), Obstructive uropathy 7(19.4%) and Septicaemia 6 (16.7%). Twenty-six (72.2%) of the 36 patients were discharged, 6(16.7%) died and 4 (11.1%) left against medical advice. Of the 26 that were discharged, 14

(53.8%) were lost to follow up at 3 months.

Conclusion and Recommendation: Acute glomerulonephritis is the commonest cause of AKI seen in this study. Preventive strategies at all levels of care still remains paramount. The high occurrence of patients being lost to follow up could be minimized by counseling and reduction of poverty.

Keywords: AKI, Children, Presentation, Sokoto, Outcome.

Malformative uropathy revealed by severe sepsis In a three years old girl at a tertiary hospital in Parakou (Benin): A Case Report

Agbeille F, Agossou J*, Adedemy JD*, Noudamadjo A*, Gandaho I***

**Mother and Child Department, **Département of surgery, Faculty of Medicine, University of Parakou, Benin*

Introduction: Upper urinary tract abnormalities are relatively frequent and could be diagnosed at birth or before birth. Some of them are seen mostly after obstructive complications. Authors are reporting a right ureteric duplicity revealed by severe sepsis.

Observation : A 3years old girl, without known particular history, was referred from a peripheric center for septic choc with hyperthermia (40°C). The physical examination found a right flank mass with lumbar contact and kidney slip, and a pain to the shaking of the right flank. The complementary explorations led to the diagnosis of ureteric duplicity with destruction of the upper pyelon, complicated with pyonephrosis. She had undergone a double antibiotic therapy combined with a partial superior nephrectomy. The operative sequences were simple.

Conclusion: Infectious complications are severe in upper urinary tract obstacles leading at the end to kidney destruction, needing early diagnosis.

Key words: Ureteric duplicity, pyonephrosis, sepsis, partial nephrectomy, children.

Childhood Acute Glomerulonephritis In Umuahia, Abia State, Nigeria

Ibeneme CA, Onuh EF, Ezuruike EO

Department of Paediatrics, Federal Medical Centre, Umuahia

Email: chik4sco@yahoo.co.uk

Background: Despite the declining incidence of acute glomerulonephritis (AGN) in the developed part of the world, the disease remains fairly common in low income countries with varied presentations leading to childhood mortality. Establishing the local pattern of the disease and its complications may assist in planning intervention strategies to improve disease outcome.

Objectives: To document the prevalence among paediatric admissions, the sociodemographic characteristics, common presenting features, complications, and out-

come of acute glomerulonephritis in Federal Medical Centre Umuahia.

Subjects and Methods: Review of cases of AGN seen over a period of six years. Patients' biodata, clinical and laboratory features and outcome were analyzed.

Results: AGN accounted for 0.9% of paediatric admissions with a male to female ratio of 2:1. Peak age incidence was 5 to 10 years with a mean of 7.32 ± 3.59 . Majority (52.6%) were of the low socioeconomic class. Proteinuria and haematuria were constant features. Other common features included oedema of varying degrees (94.7%), anemia (68.4%), hypertension (57.9%), fever (57.9%), oliguria (52.6%) and cola-coloured urine (36.8%). UTI was the notable co-morbidity. Complications were acute kidney injury, hypertensive encephalopathy and pulmonary edema. Mortality rate was 5.3%. **Conclusion:** AGN remains a cause of childhood morbidity with varied complications leading to death. However, where facilities for intervention are available outcome is generally good.

Key words: Acute glomerulonephritis, Childhood, Umuahia, Nigeria

Typhoid Glomerulonephritis and Pneumonia in a Female Nigerian Child: A Rare Co-Complication

Ibeneme CA, Ogba EI, Iwegbulam CC, Ezuruike EO
Department of Pediatrics, Federal Medical Center, Umuahia
Email: chik4sco@yahoo.co.uk

Background: Typhoid fever is a severe multi-systemic disease caused by *Salmonella* organisms and remains endemic in many developing countries. Renal complications due to typhoid occur in 2% - 3% of cases and are considered to be rare in children. We report a case of acute glomerulonephritis and bronchopneumonia in a female Nigerian child with typhoid sepsis.

Case report: N.N, a 9 year old female presented with fever, headache, abdominal pain and poor appetite of 2 weeks, reduced urine output, cola colored urine, fast breathing and weakness of 6 days. Findings included dyspnea, pallor, temperature of 38.5° , grade III bilateral pitting leg oedema, ascites, hypertension, dull percussion notes with reduced breath sounds on the right mid and lower lung zones as well as crepitations on both lung fields. Laboratory findings were proteinuria, haematuria, azotemia (urea of 279mg/dl), creatinine of 4.2mg/dl, PCV of 18%, leukocytosis. Widal test showed the O agglutinin titre for salmonella typhi and paratyphi to be 1:160 and 1:320 respectively. Renal scan showed raised cortical echogenicity and some loss of corticomedullary differentiation. CXR revealed bilateral patchy opacities. She was managed with intravenous antibiotics with resolution of symptoms.

Conclusion: Awareness about rare presentations of typhoid fever as well as prompt diagnosis and treatment can help to decrease morbidity and mortality.

Key Words: Typhoid sepsis, Glomerulonephritis, Pneumonia, Nigeria

Attention deficit hyperactivity disorder among primary school children with poor academic performance in the FCT

Offiong UM¹, Ali I², Mairiga F¹

¹Department of Paediatrics, University of Abuja Teaching

²Department of Medicine, Clinical Psychology Unit

Introduction: Poor academic performance can be defined as a school achievement below the expected for a given age, cognitive skill and schooling. At least 15-20% of school children will fall below the expected academic score. Attention Deficit Hyperactivity Disorder (ADHD) is a cause of poor school performance. It affects 8-12% of school aged children worldwide. While ADHD if treated can improve school outcomes, there is limited data on its occurrence in children failing in school, thus the indication for the study.

Materials and Methods: This study was carried out among primary school children with poor school performance who were assessed to have symptoms of ADHD using the DSM-IV school version adapted by Du-Paul.

Results: A total of 103 forms were returned giving a response rate of 82.4%, one form had no student biodata thus was discarded. The male: female a ratio was 1:1.3. The mean age was 11.9 years. Fifty (48.5%) children assessed to have 6 items or more scoring 2-3 in either the subsets of hyperactivity-impulsivity or inattentiveness; 17(34%) were females and 33(66%) were males. The ADHD subset distribution showed 16 (32%) had combined, 3(6%) had hyperactivity-impulsivity while 31 (62%) had inattentiveness.

Discussion: Poor school performance is regarded as a symptom not a diagnosis as it may be a reflection of a larger problem thus it requires careful investigation. A prevalence of 43% was seen in this study.

Conclusion: There is need for further studies to develop policies for intervention to improve education for these children.

Keywords: ADHD, School failure

Profile of Cases of Autism Spectrum Disorder seen in Sokoto over a Decade

Ahmad MM, Ahmed H, Jiya NM, Baba J, Legbo JF, Omar M, Tahir AA

Departments of Paediatrics, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria
Email: murisbn@yahoo.com

Introduction: Autism Spectrum Disorder (ASD) is a group of lifelong neuro developmental disorders characterized by poor social skills: impairments in communication, social interaction and stereotypic or restrictive interests/behaviours.

Aim: To determine the profile of ASD cases seen in Sokoto over a decade

Methodology: A retrospective observational study of the clinical presentation and neuro imaging findings in chil-

dren with ASD seen in UDUTH Sokoto was done, using the hospital records (from July 2007 to June 2017).

Result: Out of 1267 cases seen in Paediatric Neurology clinic over the period, ASD accounted for 18 cases (1.4%). The mean age of the cases was 5.6 ± 2.5 (range 2 to 13) years, with a male to female ratio of 1:1.6. All the cases had the 3 core symptoms of impaired communication, socio-emotional interactions and restricted/stereotypic behaviours that all started within first 2-3 years of age. Identified co-morbidities among the cases include motor delays (27.8%), seizures (33.3%) and hyperactivity (55.6%). Only 7 out of 18 patients (38.9%) had a brain CT scan, which was normal in 5 out of 7 (71.4%) and features of cerebral atrophy in 2 out of the 7 (28.6%) cases.

Conclusion: Autism spectrum Disorder is not uncommon among children with Neurologic disorders in our setting and is associated with multiple neurodevelopmental co-morbidities. There is need to create more awareness so as to enhance early presentation and appropriate intervention measures.

Key words: Autism, Development, Sokoto, UDUTH

Magnetic Resonance Imaging of Paediatric Brain Tumours in Nigerians: A five year review

Umar AA, Aimua H*, Nwafor A*, Onuh J*, Ike-ugwoke O*, Shetimma DR***

**Department of Radiology, **Department of Paediatrics, National hospital Abuja.*

Email: draaumar@yahoo.com

Introduction: Magnetic Resonance Imaging (MRI) commenced in Nigeria 18 years ago, at the National Hospital Abuja (NHA). MRI is the imaging modality of choice in the evaluation of brain tumours, due to the multi planar capability and use of non- ionizing radiation with superior soft tissue differentiation.

Aim: To evaluate the radiological features of paediatric brain tumours, seen at the NHA in the past 5 years.

Materials and Methods: We retrospectively reviewed all paediatric brain MRI performed at the NHA from January 2012 to December 2016. The indications for imaging, clinical presentation, findings on examination, management and outcome, were obtained from the clinical notes. Imaging was performed pre and post contrast, using 0.2T and 0.3T open MRI machines. The salient radiological features of brain tumours, were documented.

Results: A total number of 597 Paediatric brain MRI were performed in the period of the study. 54 (9.05%) of the patients were diagnosed with brain tumours. The age range of patients was 4 months to 16years, with an average age of 7.8years. The sex ratio was M:F =2:1. Indications for imaging were mainly for diagnosis and follow up post surgery, in patients who presented with seizures, headache, visual abnormalities and others. Supratentorial (27.7%) tumours were the most common, followed by Posterior fossa tumours (25.92%), and Sellar and parasellar tumours (14.8%). Others were Pineal tumours (11.1%) Arachnoid cyst 9.3%, and others

11.18%. Management varied depending on tumour type ranging from interval follow up, VP shunt insertion for hydrocephalus, tumour biopsy and excision for others. Some patients had radiosurgery, radiation therapy and chemotherapy.

Conclusion: MRI is invaluable in management of paediatric brain tumours. It was very useful in diagnosis, follow up post treatment, imaging of complications, and it affected management and outcome.

Keywords: MRI, Paediatric, Brain tumours.

Prevalence and factors associated with malnutrition among children with chronic neurologic disorders in paediatric neurology clinic in IHU, OAUTH, Ile-Ife

Anyabolu CH#, Olorunmoteni O#, Elusiyani JB# Adebayo SO, Kareem AJ^*

#Department of Paediatrics and Child Health, Obafemi Awolowo University, Ile-ife

**Department of Demography and Social Statistics,*

^Department of Paediatrics, Obafemi Awolowo University, Ile-ife

Introduction: Malnutrition is a potential co-morbidity among children with diverse chronic diseases. However the burden, pattern and determinants among children with chronic neurologic disorders in pediatric neurology clinic in Ile-ife remains undetermined.

Aim: To determine the prevalence, pattern and factors associated with malnutrition among children attending the pediatric neurology clinic in OAUTHC, Ile-ife.

Method: This was a cross sectional study over 3 months in the paediatric neurology clinic. Fifty six consecutive consenting children who were between ages 1 and 12 and their caregivers participated in the study. Malnutrition was assessed using the WHO 2007 Reference. Sociodemographic factors, caregiver knowledge and dietary patterns were also assessed.

Results: The prevalence of underweight (WAZ<-2) and wasting (WHZ <-2) z-scores were 19.6% and 14.2% respectively. Factors associated with any form of malnutrition were orphan hood (p=0.02); cerebral palsy (p<0.01); presence of at least one form of feeding problem (p=0.00) and feeding pattern less than the minimum acceptable feeding frequency (p=0.001).

Conclusion: Identifying the presence of feeding problem as well as dietary counseling of caregivers may ameliorate the burden of malnutrition as a co-morbidity in children living with chronic neurologic disorders in Ile-ife.

Cerebral Palsy in Nigerian children: profile and impact on educational opportunities

Lagunju IA, Oyinlade OO, Famosaya AA, Balogun TAB, Ibeh J, Adelaja A, Oluleye A

Department of Paediatrics, College of Medicine, University of Ibadan, Ibadan & University College Hospital, Ibadan.

Background: Cerebral Palsy (CP) is the leading cause of

childhood neurodisability in Nigeria. Affected children face the added burden of inadequate facilities for rehabilitative care and diminished educational opportunities.

Objectives: We set out to determine outcomes and access to educational opportunities in a cohort of Nigerian children with CP seen at the UCH, Ibadan.

Methods: All new cases of CP were prospectively followed for 12 months to determine access to neuro-rehabilitative care and educational opportunities.

Results: 304 children with CP were enrolled, 187 males and 117 females. Age at presentation ranged from 6 months to 14 years, median 16.0 months. The leading risk factors for CP were severe perinatal asphyxia (42.4%), bilirubin encephalopathy (23.4%), intracranial infections (20.0%) and prematurity (6.6%). Spastic CP was predominant (83.2%) and about two-thirds of the children had severe functional impairment in GMFCS classes IV and V. Of the 117 children who were of school age, 46 (39.3%) were enrolled in school; 37 (31.6%) were in main-stream/regular schools and only 9 (7.7%) were in special schools. Children with severe functional impairment and associated malnutrition were less likely to be enrolled in school ($p < 0.001$) and ($p = 0.001$) respectively. Twelve months post-enrolment, 199 (65.5%) had defaulted from rehabilitative care. Children with associated epilepsy were less likely to default from care ($p = 0.024$, OR 2.394, 95% CI 1.082, 5.293).

Conclusion: CP remains a leading cause of neurodisability in Nigerian children. The major risk factors are preventable causes. Only about one-third of affected children are given opportunities for any form of education at all and access to specialised education is greatly limited.

Keywords: Cerebral palsy, disability, rehabilitation, educational opportunities.

Knowledge of recommended sleep practices for infants amongst paediatric doctors and nurses attending Paediatric Association of Nigeria (PAN) Conference in Kaduna, Nigeria

*Isezuo KO, Ibitoye PK, Onankpa BO, Adamu A
Jiya FB, Sanni MA, Omar M, Inoh I
Department of Paediatrics, Usmanu Danfodiyo
University Teaching Hospital, Sokoto
Email: khadisez@yahoo.com*

Background: The American Academy of Paediatrics (AAP) started the Back to sleep campaign since 1992 to reduce the incidence of Sudden infant death syndrome (SIDs) and expanded its recommendations in 2011 to include provisions to ensure safe sleep environment for infants. Health workers, especially doctors and nurses who are in contact with infants are to ensure correct information is given to parents. However, knowledge gaps still exist among health workers in many countries.

Objective: To assess knowledge on SIDs and recommended sleep practices for infants among doctors and nurses attending Paediatric Association of Nigeria (PAN) Conference in Kaduna, Nigeria

Methods: A cross-sectional study, carried out between

from 24th to 27th January 2017. Doctors and nurses attending the conference were invited to complete a structured questionnaire on knowledge of the sleep recommendations by the AAP. Data was analysed with SPSS version 22.

Results: A total of 72 (24%) of 300 responded comprising 52 doctors (72.2%) and 20 nurses (27.8%). While 44 (61.1%) said they were aware of the AAP recommendations, only 30 (41.7%) correctly knew the recommended back to sleep position and 10 (13.9%) knew the preferred position when baby was awake. Fifty (69.7%) wrongly felt side sleeping was protective against SIDS. Forty-two (58.3%) were frequently asked by mothers about the best sleep position. Twenty-eight (53.8%) of the doctors and 2 nurses (10%) selected the back position as the recommended sleeping position ($p = 0.02$).

Conclusion: Knowledge of recommended sleep practices is suboptimal amongst paediatric doctors and nurses. There is need for increased acquisition of knowledge by them so as to guide mothers correctly.

Key words: Knowledge, infant, sleep position, doctors, nurses

Periodic Paralysis in a Nigerian Child: A Case Report

*Imoudu IA, Ahmad H, Yusuf MO, Afegbua DS
Ismail MK, Umara T
Department of Paediatrics, Federal Medical Centre
Azare, Nigeria.
Email: tomhe164@yahoo.com*

Introduction/Background: The periodic paralyses are a rare group of muscle channelopathies characterized by intermittent attacks of episodic muscle weakness of variable duration. They include a group of diseases ensuing from mutations in the SCN4A, CACNA1S and KCNJ2 genes. Typically, symptoms begin in the first or second decade of life.

Case Report: This case describes a 13 year-old girl with generalized epilepsy who presented with a 9- year history of recurrent attacks of inability to walk. Attacks which occurred at a frequency of 2-3 times a year with spontaneous resolution were often triggered by exposure to cold, strenuous exercise and rarely by convulsions. At presentation, the index episode had been on-going for 2 days. The diagnosis was based mainly on clinical features; the delay in onset of the paralytic episodes as well as the drop in serum K levels during attacks are suggestive of hypokalaemic periodic paralysis. Management of the index acute paralytic episode and prophylaxis were accomplished with oral acetazolamide administration.

Conclusion: In addition to emphasizing the paucity of data on this group of diseases, this report draws attention to the relative ease with which acute paralytic episodes can be prevented in a resource-poor setting.

Keywords: Periodic paralyses, Channelopathies, Epilepsy, Acetazolamide, Nigerian, Child.

Pattern of Childhood Seizure Disorders and Electroencephalographic Correlates Among Children in Sokoto, North-Western Nigeria

Ahmad MM, Ahmed H, Abubakar M, Abubakar FI
Yusuf A, Ahmed HK
Department of Paediatrics, Usmanu Danfodiyo
University Teaching Hospital, Sokoto, Nigeria
Email: murisbn@yahoo.com

Background: Seizure disorder (epilepsy) is one of the common chronic neurologic disorders in the paediatric age-group. It has both medical and psycho-social significance. Its diagnosis is mainly based on clinical history (eye witness account or a video recording) of the ictal events. Electroencephalogram (EEG) helps in complementing/confirming the diagnosis.

Aim: To determine the pattern of paediatric epilepsy and inter-ictal EEG correlates in children attending Paediatric Neurology clinic, UDUTH Sokoto.

Methodology: A descriptive analysis of the pattern of seizure disorders and EEG correlates in children with epilepsy seen in UDUTH Sokoto was conducted over 44 months (January, 2014 to August, 2017).

Results: Three hundred and three cases of Seizure disorder (epilepsy) were studied, constituting 47.2% of all Paediatric Neurology cases seen in the Clinic over the period. The mean age of the cases was 6.1 ± 4.5 years (range 3 months to 15 years). Infants accounted for 18.2% of the cases. Male to female ratio was 1.9:1. Generalized tonic-clonic seizure was the predominant presentation (64.4%), followed by myoclonic forms (12.9%) and mixed seizures (9.6%). Absence seizure was the least observed (1.7%). Cerebral palsy was the commonest identifiable risk factor in 24.4% of the cases. Only 176 (58.1%) of the patients had an EEG test, out of which 83% showed epileptiform features.

Conclusion: Paediatric seizure disorder constitutes nearly half of all paediatric Neurology presentations in our center. Cerebral palsy was the commonest identifiable risk factor. Inter-ictal EEG yield of epileptiform discharges among the clinical cases was high.

Key words: childhood, EEG, seizure, Sokoto

Paediatric Strokes: Risk Factors and Short-Term Outcomes

Lagunju I, Brown BJ, Oyinlade AO, Esione A, Ibeh J,
Balogun TAB, Adelaja A, Sodeinde OO.
Department of Paediatrics, College of Medicine,
University of Ibadan, Ibadan & University College
Hospital, Ibadan

Introduction: Childhood stroke adversely affects cognition, functional independence, educational opportunities and the overall quality of life. There are limited reports on the pattern of stroke in African children.

Objectives: To determine the pattern, risk factors and short-term outcomes in a cohort of Nigerian children with stroke.

Methods: Consecutive new cases of stroke seen in a

paediatric neurology clinic over a period of 7 years were evaluated clinically and by neuroimaging studies. All were followed up for a minimum period of 12 months.

Results: There were a total of 83 new cases of paediatric stroke; 72 (86.7%) ischaemic and 11 (13.3%) haemorrhagic. Age at first stroke ranged from 1 week to 15 years, median 7.25 years. Risk factors identified for stroke were sickle cell disease (SCD) (62.7%), adverse intrauterine/perinatal events (16.9%), meningitis (9.6%), cerebral aneurysms/AVM (3.6%), cyanotic congenital heart disease (CHD) (3.6%) and Moyamoya disease (3.6%). Thirty nine (47.4%) had moderate-severe motor disability. Stroke was recurrent in 25 (30.1%) and by the end of 1 year, 18 (21.7%) children had dropped out of school on account of severe motor disability and learning difficulties. Stroke due to SCD was associated with an increased risk of recurrence ($p < 0.001$) and an increased risk of dropping out of school ($p < 0.046$).

Conclusion: Two of every three strokes in Nigerian children are due to SCD, with attendant high risk of recurrence, severe motor disability and high school drop-out rates. Institution of primary stroke prevention measures in SCD will significantly reduce the burden of childhood stroke in Nigeria.

Keywords: Stroke, childhood, disability

EEG findings in Paediatric Epilepsies in a newly established Paediatric Neurology Unit in FMC Umuahia, South Eastern Nigeria: challenges and prospects

Ukpabi IK¹, Ogonnaya GU², Ojinnaka NC³,

Introduction: Accurate diagnosis and appropriate treatment are the keys to reducing the high burden of care and cost of treatment of paediatric epilepsies in developing countries. EEG remains the most important investigative tool in establishing a clinical diagnosis of epilepsy. There is still limited access to this key diagnostic tool in our resource-poor setting leading to misdiagnosis and inappropriate treatment. We report the EEG findings, challenges and prospects in a newly established Paediatric Neurology Unit of Federal Medical Centre Umuahia, Southeastern Nigeria.

Method: Routine inter-ictal EEG of children with epilepsy seen in the paediatric neurology clinic of Federal Medical Centre Umuahia and those referred from other health facilities for the test, over a 20-month period was reviewed. The clinical diagnosis before and after the EEG test were noted.

Result: A total of 80 EEGs were recorded from 80 children aged between 3 months to 16 yrs. There was a high yield of electroencephalographic abnormalities with the clinical diagnosis of epilepsy established in 97.5% of cases. EEG evaluation resulted in 7.5% reduction of cases labeled as generalized seizures with similar increase in cases of localization-related epilepsies, although this was not statistically significant ($p = 0.405$).

Conclusion: It is shown that although the diagnosis of epilepsy is clinical, EEG is indispensable in establishing accurate diagnosis in order to ensure appropriate treat-

ment and good prognosis, and this is possible even in a newly established paediatric neurology unit in a developing country.

Respiratory syncytial virus infection in hospitalized children with acute lower respiratory infections at the unilorin teaching hospital: Discriminating parameters of virus-positive cases

*Oladele DM, Johnson, Abdul-Wahab BR, Adedoyin OT, Ibrahim RM, Gobir AA
Disease Unit, Department of Paediatrics & Child Health, University of Ilorin Teaching Hospital/
University of Ilorin, Ilorin, Kwara State, Nigeria*

Background: Whereas a legion of viruses has been shown to play a causative role in acute lower respiratory infections (ALRI), RSV continues to dominate the aetiological landscape with respect to the specific ALRI syndromes of bronchiolitis and pneumonia in under-five children. Earlier reports on RSV-associated ALRI in Nigerian children emanated from (community-based) prevalence or incidence data, garnered over a decade ago. The current study sought to determine the prevalence of RSV-associated ALRI among hospitalized under-fives, compare the socio-demographic, clinical and radiographic features, as well as the outcome variables, between RSV-positive and RSV-negative ALRI.

Methods: This was a descriptive cross-sectional study of 120 consecutive children (aged two to 59 months) with ALRI, carried out over a 12-month period (June 2015–May 2016). For each subject, the relevant socio-demographic risk factors, clinical and radiographic parameters were documented, in addition to the results from blood cultures and viral studies of nasal washings. Viral antigen was identified using chromatographic immunoassay. Admission outcomes were categorized into “death” and “survival”; duration of stay and complications were recorded in survivors. Data analysis was done, using the SPSS 20.0 software package.

Results: Thirty-eight (92.7%) of the RSV-positive cases were seen during the rainy months of May through October. The prevalence of RSV infection was 34.2%. The mean±SD age of subjects was 11.4±10.3 months. Infants (2–12 months) constituted 77(64.1%) of the subjects. Pneumonia was diagnosed in 98(81.7%) subjects, while 22(18.3%) had bronchiolitis. The percentage of infants (aged two–<12 months) was 82.9% in the RSV-positive subjects and was significantly higher than that of 54.4% in the RSV-negative group ($p=0.002$). Compared with the RSV-negative group, RSV-positive subjects recorded significantly higher prevalence of each of nasal discharge (82.9% vs. 62.0%), conjunctival redness (24.4% vs. 8.9%); chest indrawing (70.7% vs. 48.1%); rhonchi with or without crepitation (34.1% vs. 16.5%) and head nodding (22.0% vs. 7.6%) ($p<0.05$ for each of the clinical parameters compared). Comparable radiographic findings were recorded among the RSV-positive and RSV-negative groups. Logistic regression analysis of the relevant variables identified the independent predictors of RSV-positive ALRI as

“infancy” ($p=0.039$, OR=3.154, 95% CI (1.160, 9.386), and “conjunctivitis” ($p=0.018$, OR=5.097, 95% CI (1.320, 19.688)). Compared with those who were RSV-positive, a significantly higher proportion of RSV-negative subjects had complications (12.2% vs. 38.0%; $p=0.002$), but the prevalence of bacteraemia was comparable between the two groups (31.7% vs. 32.9%; $p=0.894$). All bacteria positive RSV-ALRI had a diagnosis of pneumonia, none had bronchiolitis ($p=0.024$).

Conclusions: RSV-associated severe ALRI is a common cause of hospitalization in infants, especially during the rainy season in Ilorin. We proffer that more efforts be ‘invested’ into implementing the current “global best practices” for preventing RSV-associated ALRI. The current bacteriological data also underscores a possible need for a prompt (empirical) antibiotic treatment in all RSV-associated ALRI with a diagnosis of pneumonia.

Keywords: Respiratory syncytial virus (RSV); acute lower respiratory infections (ALRI); discriminating parameters; pneumonia; bronchiolitis.

Cognitive Performance of Asthmatic Nigerian Children and Adolescents

Mohammed SS⁺⁺, Johnson Abdul-Wahab BR^{}, Gobir Aishatu A^{**}, Adeboye MAN^{*}, AbdulKadir MB[#], Ibraheem RM[¶]
Paediatric Cardiorespiratory/Infectious Disease and Neurology Units,
Department of Paediatrics & Child Health, University of Ilorin Teaching Hospital
& University of Ilorin, Ilorin, Kwara State, Nigeria*

Background & Objectives: Conflicting reports abound on the cognitive expectations among asthmatic children. Yet, their possible proneness to hypoxic episodes and school absenteeism would be expected to have an adverse effect on cognition. The need for building a more positive self-esteem and indeed, a better adherence to treatment plan among asthmatics have informed the present study to clarify the possible cognitive expectations in a cohort of asthmatic Nigerian children and adolescents.

Methods: Cognitive performance scores of 66 asthmatics aged 6–17 years, and the corresponding scores among 66 apparently healthy age- and gender-matched non-asthmatic controls were compared in this cross-sectional study. After documenting the relevant sociodemographic and anthropometric data, the Raven’s Progressive Matrices (RPM) psychometric test was administered to subjects and controls. Test scores and other data generated were analysed and using the relevant statistical tools.

Results: The median {Interquartile range (IQR)} RPM test score recorded in asthmatic subjects was 50.0(25.0–75.0), and this was significantly higher than the corresponding values of 32.5(10.0–50.0) among controls ($p=0.016$). Compared with controls, asthmatics constituted a significantly greater proportion of the ‘high (RPM score) grade’ category of study participants ($p=0.043$, OR=2.124, 95% CI=1.017–4.437). Also, significantly greater proportions of participants (subjects

and controls) from the higher socio-economic classes recorded RPM scores categorized as "High grade", compared with the corresponding proportion of study participants from the lower social classes ($p < 0.001$). Also, higher RPM grades were significantly associated with high (tertiary) maternal educational status, among asthmatic participants, as well as non-asthmatic controls ($p = 0.002$ and $p < 0.001$ respectively); high paternal educational status was significantly associated with the high RPM cognitive grade, only among controls ($p = 0.013$). Logistic regression of the relevant variables identified *high parental social class* and *paternal educational attainments*, as the *two main predictors of a high RPM test -grade* in both subjects and controls.

Conclusions: The putatively higher cognitive scores among asthmatics in the current study may be usefully deployed for a more positive anticipatory guidance (with respect to cognition), and hence strengthen a better treatment plan adherence. Clearly, larger series are required for validation, and indeed to clarify the genetic basis for an 'above average', or 'superior intellect' among asthmatics.

Keywords: Bronchial asthma; Cognitive performance; Nigerian children; RPM IQ-test Social Paediatric

Assessment of Stress and its Predictors among Female Medical Doctors in South-East Nigeria

Ofiaeli O*, Nri-Ezedi C.A*,

*Department of Paediatrics

Nnamdi Azikiwe University Teaching Hospital, Nnewi.

Email: chisomnrizedi@gmail.com

Introduction: Stress is a common notion associated with the medical profession. Among female doctors, this unstable mental state in addition to reducing work productivity can in turn impair the neuro-developmental and cognitive function of their offspring.

Objectives: To evaluate the mental state of female medical practitioners in South East Nigeria.

Methods: A cross-sectional study that assessed the prevalence of stress and its predictors among female medical practitioners using the international K-10 stress assessment scoring system.

Results: 236 female medical doctors were evaluated in this study. Overall, 37.3% were found to be stressed: 21% mildly stressed, 10% moderately stressed and 6% severely stressed. Significant predictors of stress were observed in subjects 31-40 of years, mothers with more than 3 kids, and night calls while non-significant predictors were seen in resident doctors, subjects whose spouses reside in a different location and spouses who are medical practitioners.

Conclusion/Recommendation: An increased level of stress was observed in almost all female medical doctors who are mothers; with stressors largely work related. Advocacy to and interventions by employers of labour will greatly aid in mitigating potential stressors thus enhancing the mental state of our female doctors.

Keywords: mental, stress, female, doctors, Nigeria

Patterns and adverse effects associated with child labour in Enugu Nigeria

Bisi-Onyemaechi AI,¹ Chikani UN,¹ Oguonu T¹

¹Department of Paediatrics, College of Medicine, University of Nigeria.

Email: adaobi.bisi-onyemaechi@unn.edu.ng

Background: Child labour deprives children of their childhood, their potential and their dignity, and is harmful to their physical and mental development.

Aim: The study is to determine the pattern and adverse effects associated with child labour in Enugu.

Methods: Children aged between 6 and 17 years were studied. They were selected randomly from streets, shops and markets in Enugu. Child labour was defined as any type of economic task, paid, unpaid, or exploitative, engagement by a child. Qualitative data were analyzed using descriptive statistics.

Results: There were 171 children with mean age of 12.5 years enrolled. Majority (62%) were males and thirty-five (20.5%) of the children were out of school, while 62% live with both parents. The most common activities were hawking (32%) and shop keeping (18.6%) and domestic work (11%). The average duration of activity was 8 to 12 hours. Only females (11%) were engaged in baby-sitting and house-keeping work, similarly males only (10%) were involved in loading/offloading goods. Fifty-five percent worked to support their families financially. Some of the children had various forms of reward: cash payments (42%), school funding (18%), food (9%) for their services. Adverse conditions experienced by the children while working include prolonged work hours (53%), sexual abuse (48%), physical assault (9.6%), hunger (9.6%), burn injury (1.7%).

Conclusion: A sizeable proportion of children were still exposed to in various forms of child labour which have detrimental effects on their wellbeing.

Paediatricians' perspectives on industrial actions by medical doctors in Nigeria

Okechukwu C,¹ Readon C, Ideh T²

Department of Paediatrics and Child Health, University of Port Harcourt Teaching Hospital,

Port-Harcourt, Rivers State, Nigeria.¹

Department of Paediatrics, University of Benin Teaching Hospital, Benin, Edo State, Nigeria.²

Email: chiomaokechukwu412@gmail.com

Background: Industrial actions have become a frequent means by which medical doctors attempt to communicate their grievances to the government. Paediatricians are frequently caught between a desire to support the course of their medical association and caring for their patients.

Aim: To assess the opinion of paediatricians concerning strike actions, the aetiology and their preferred method of communicating grievances to the community or government.

Methods: A cross-sectional descriptive study was done

on participants attending a paediatric conference in Nigeria. There were 102 respondents, who cut across the 6 geopolitical zones of Nigeria, consisting of paediatric consultants, residents and nurses. The study was done using self-administered questionnaires and analysed using SPSS version 20.

Results: 49% of respondents did not support industrial actions while 21% of persons were undecided. Only 29 (28.4%) of respondents supported industrial actions. 86 (84.3%) of respondents volunteer their services even when their medical association is on strike. Poor remuneration (36%), poor working conditions (24.3%) and failure of the government to keep to promises to doctors (19.9%) were the top 3 reasons given for strike actions. 39 (38.2%) of respondents admitted to a desire to relocate to continue medical career outside Nigeria if given the opportunity.

Conclusion: Industrial action is not the paediatricians' preferred means of communicating grievances. Other means of communication like continuous dialogue should be employed for stability in health care delivery.

Key words: Paediatrician, Nigeria, industrial action, strike, medical doctors

Prevalence and pattern of child sexual abuse among male secondary school adolescents in Ibadan, Nigeria

¹Adenowuro OE, ^{1,2}Balogun FM

¹Institute of Child Health, College of Medicine, University of Ibadan, Ibadan, Nigeria

²University College Hospital, Ibadan, Nigeria

Email: folushom@yahoo.com

Background: Child sexual abuse is a vile crime which exposes its victims to adverse lifelong consequences. More focus have been on female child sexual abuse but the male child also experience this abuse and require appropriate interventions as well. Detailed investigations regarding the pattern of male child sexual abuse is imperative to curtail the menace.

Objectives: This study determined the prevalence and pattern of sexual abuse among male secondary school adolescents in Ibadan metropolis, Nigeria.

Methodology: Cross-sectional study design was used with respondents recruited via three-stage sampling. Two local government areas, 12 secondary schools and 472 male adolescents were selected. Self-administered semi-structured questionnaires were used to collect socio-demographic data and details on sexual abuse. The data was analyzed with the aid of SPSS software using descriptive statistics, Chi-square and Logistic Regression at $p < 0.05$.

Results: Mean age of the respondents was 13.4 ± 1.9 years. The overall prevalence of sexual abuse was 29.0% and the abuse occurred most in the perpetrator's home (54.1%). More victims had been sexually abused during afternoon (51.4%) than evening or night (40.5%). The commonest perpetrators of non-contact sexual abuse were friends (55.5%), neighbours (22.7%) and family members (20.9%). More victims had experienced contact sexual abuse exclusively by females (46.0%)

than males (40.5%) or both sexes (13.5%). Factors associated with sexual abuse were coming from a polygamous home, having separated parents, hawking and assisting trading parents.

Conclusion: This study portrays the vicious pattern of sexual abuse among male in-school adolescents. There is need for parental education and environmental measures to prevent the menace.

Keywords: Male sexual abuse, adolescent, pattern.

Impacted Corn Cob in the Anus: An Unusual Presentation of Child Sexual Assault

Garba MA, Umar LW, Musa S, Makarfi HU

Akeredolu F

Infectious Disease Unit, Department of Paediatrics, Ahmadu Bello University Teaching Hospital, Zaria, Nigeria

Email: drkaita@yahoo.com

Introduction: Child sexual assault has gained worldwide attention as a medico-social problem with significant immediate and long-term impact on victims, their families and society. This abhorrent deviant act may present with bizarre manifestations including various objects inserted into body orifices of victims. We report a rare case of foreign object impaction in a boy.

Objectives: To report a case of impacted object following serial anal sexual assault in a boy.

Case report: A 7-year old boy presented with a 4-week history of foul smelling, purulent anal discharge with anorexia, fever and severe anal pain. He had been assaulted on several occasions over a two-year period by a man who lures him with candies and inserts a corn cob into his anus before having penetrative anal sex intercourse with him. The last episode of such occurred five weeks prior to presentation. On examination, he was acutely ill, underweight, pyrexia, with foul smelling body odour. He had firm, non-tender sausage-shaped masses in the iliac fossa. The anus was patulous with copious foul smelling purulent discharge. A corn cob, 4x4 cm size was found stuck in the anal canal which was manually removed. Abdominal ultrasound was normal while serological tests for STDs were negative. He did well on antibiotics. The authorities were informed and he was commenced on psychotherapy.

Conclusions: This report highlights the bizarre presentations of sexual assault in children. Childcare practitioners should be wary of the possibility of foreign bodies insertion in victims, which may lead to severe consequences.

Keywords: Anal; Rectal; Foreign body; Insertion; Sexual abuse; Assault; Child