ABSTRACTS OF PAPERS PRESENTED AT THE 2023 ANNUAL SCIENTIFIC CONFERENCE OF THE NIGERIAN SOCIETY OF NEONATAL MEDICINE

1. RISK FACTORS FOR NEONATAL SEPSIS AND OUTCOME OF MANAGEMENT AT NEONATAL INTENSIVE CARE UNIT OF THE EDWARD FRANCIS SMALL TEACHING HOSPITAL IN BANJUL, THE GAMBIA ORA/MSC/0001

Authors

Simon Pius*, Dr Fatoumata John,** Adama Ahmadu Sallah,+, Mustapha Bello++

- *Department of Paediatrics, Edward Francis John, Small Teaching Hospital (EFSTH), Banjul/University of The Gambia, Banjul Campus
- **Department of Paediatrics, American International University of West African, Banjul,
- [†]Department of Paediatrics, American International University of West African, Banjul, The Gambia
- **University of Maiduguri Teaching Hospital, Maiduguri Nigeria

BACKGROUND

Background: Neonatal sepsis is an important cause of morbidity and mortality among neonates in developing countries accounting for 30-50% of total deaths each year. The first 28 days of life is the most vulnerable time for child survival. Worldwide, neonatal sepsis accounts for an estimated 26% of under-five deaths, with sub-Saharan Africa having the highest mortality rates. Severe neonatal infections (including tetanus, meningitis and pneumonia) represent a significant cause of neonatal mortality (24%) and cause short- and long-term complications, such as neonatal encephalopathy.

OBJECTIVES

Objective: The aim of the study was to determine the risk factors and outcome of neonatal sepsis at the NICU at EFSTH.

METHODS

This was an unmatched retrospective case control study conducted among 100 neonates admitted from November to December 2021 at the Edward Francis Small Teaching Hospital NICU. The cases reviewed included newborns with and without risk factors for sepsis and those with a clinical diagnosis of neonatal sepsis.

RESULTS

Mothers' age were between the ages 25-35, 48(48%), with a few < 16 years, (2%), and with mean age was 30 (±0.7) years. Maternal factors that predicted the occurrence of sepsis among neonates were place of delivery and complications during delivery. Neonatal risk factors which predicted the occurrence of sepsis were; being out born, low birth weight, low gestational age, low APGAR scores in the first minute and maternal antibiotic usage. The common organisms

identified were Staphylococcus aureus, Streptococcal pneumoniae and Escherichia coli, these organisms responded well to the antibiotics such cefotaxime, and gentamycin.

CONCLUSION

Conclusion: The study found both maternal and neonatal factors were strong contributors to developing neonatal sepsis. Antenatal care utilization and giving birth at skilled health facility would reduce the risk factors for sepsis.

2. DISCHARGE AGAINST MEDICAL ADVICE IN THE NEONATAL UNIT OF RIVERS STATE UNIVERSITY TEACHING HOSPITAL: A TWO-YEAR PROSPECTIVE STUDY ORA/MSC/0002 Authors

Dr Datonye Christopher Briggs,* Boma Awoala West**

- *Department of Paediatrics, Rivers State University Teaching Hospital
- **Department of Paediatrics and Child Health, Rivers State University, Nkpolu, Port Harcourt, Nigeria.

BACKGROUND. Discharge Against Medical Advice (DAMA) is a silent contributor to neonatal morbidity and mortality in Nigeria. Parents' autonomous decision to discontinue medical care of their sick babies admitted in neonatal units remains an ethical contention that portends poor neonatal outcomes and is frustrating for paediatricians. Despite efforts to improve newborn services in Nigeria, DAMA remains a challenge arising from an interplay of parental and hospital-related factors. It is needful to generate data concerning neonatal DAMA, particularly in settings where it has been previously unreported.

OBJECTIVES. The objective of the study is to determine the prevalence of DAMA, neonatal and family's socio-demographic characteristics, morbidity pattern and reasons for DAMA among neonates admitted in the Special Care Baby Unit of Rivers State University Teaching Hospital.

METHODS. A prospective observational study conducted among neonates admitted from April 2021 to March 2023. Data were filled in a pre-specified-proforma and analysed.

RESULTS. Of the 1830 neonatal admissions, 87 were discharged against medical advice giving a prevalence of 4.8% and 48(55.8%) were females. Most, 66(75.9%) were born at term, 51(58.6%) had normal birth weight, 38(43.7%) admitted at < 2hours of life and (41.4%) were above 2nd birth order. About half 47(54%) of mothers and (41)47.1% of fathers, had tertiary education and 61(70.1%) were of the low and middle socioeconomic class. Neonatal sepsis (61.2%), neonatal jaundice (31.8%), hypoglycaemia (24.7%) and prematurity/LBW (22.3%) were the commonest morbidity among neonates DAMA. Most, 65(74.7%) of DAMA occurred in the 1st week of life and request was mainly 63(73.3%) by the father. The most common reasons for DAMA were financial constraints 50(57.5%) and admission not convenient 32(36.8%).

CONCLUSION. The prevalence of DAMA was 4.8% with female preponderance. Financial constraints and admission being inconvenient were the main reasons for DAMA with fathers being the requestor in the majority of the cases.

3. NEONATAL ABSTINENCE SYNDROME IN NIGERIA, A CASE REPORT. ORA/MSC/0003 Authors

Terfa M. Asue,* Uzoamaka Nwigbo,* Khadija Ayodeji-Oleolo,* Franklin Otugeme,* Godknows Osarhiaekhimen,* Chinonso Evangel,* Iretiola Fajolu,† Ogochukwu Sokunbi,† Beatrice Ezenwa,† Chinyere Ezeaka†

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

BACKGROUND. Maternal opioid use in pregnancy has continued to rise steadily over the past decade in developed countries, with a consequent increase in cases of neonatal abstinence syndrome (NAS). There has also been an increase in opioid use among women of childbearing age in Sub Saharan Africa; as more women of child bearing age embrace Western lifestyles. We report this case of NAS from Lagos, Nigeria, to create awareness, guide policy formulation and also bring to the fore the need for evaluation of pregnant women for substance abuse and dependence so as to guide appropriate care of at-risk babies after delivery.

CASE REPORT. Baby A, a moderate preterm male neonate, was delivered via emergency caesarean section to a 34-year mother on account of antepartum haemorrhage. Mother was dependent on pentazocine, which she injected herself with daily (and promethazine) for 2 years following a traumatic brain injury; after a fall at home. Baby developed jitteriness, poor sleep, nasal stuffiness, mottling, hyperactive Moro reflex and fever within the first 6 hours of life. The average Finnegan score was 9 on the first day of life; he was managed with both non-pharmacologic and pharmacologic (morphine and phenobarbitone) measures. Glucose and electrolytes were normal. The drugs were tailed off following the resolution of symptoms and he was discharged home for follow-up care after 17 days. Mother was also referred to both the psychiatrist and psychologist for follow up.

CONCLUSION. Neonatal abstinence syndrome is rarely reported in our environment but given the increase in substance use disorders among women of child bearing age in the country, it implies some cases are being missed. A high index of suspicion is therefore required for a more detailed approach in the evaluation of pregnant women to aid early diagnosis and prompt treatment of neonates with NAS.

4. BRONCHOPULMONARY DYSPLASIA IN EXTREME PRETERM NEONATES: A CASE SERIES. ORA/MSC/0004

Authors: Khadijah Oleolo-Ayodeji,* Uzoamaka Nwigbo,* Terfa Asue,* Iretiola Fajolu,* Beatrice Ezenwa,* Veronica Ezeaka*

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

BACKGROUND. Bronchopulmonary dysplasia (BPD), also known as chronic lung disease of prematurity is a clinical pulmonary syndrome that develops in the majority of extremely preterm infants and is defined by a prolonged need for respiratory support and supplemental oxygen for the first 28days of postnatal life. Almost 60% of infants born at ≤28 wk gestation will develop BPD. The pathogenesis is multifactorial; pulmonary inflammation and lung injury are consistently observed. Supplemental oxygen produces free radicals that cannot be metabolized by the immature antioxidant system of the extremely preterm which further contributes to the injury. Risk factors significantly associated with BPD include pre and postnatal infection, excessive pulmonary blood flow via the patent ductus arteriosus (PDA) and excessive administration of intravenous fluid, long term use of oxygen in high concentrations and mechanical ventilation. We present four cases of BPD managed in our unit from Nov.2022-April 2023 in order to improve awareness, guide policy and national guidelines for quality care.

CASE PRESENTATION. Babies A-D had a clinical diagnosis of BPD. Mean gestational age at delivery was 26.25weeks, mean birth weight was 644g, and were managed for respiratory distress syndrome. They all had antenatal corticosteroids, surfactant therapy and continuous positive airway pressure (CPAP), none of the babies had mechanical ventilation. They subsequently required prolonged oxygen supplementation beyond 28 days postmenstrual age (PMA). At 36weeks PMA, they required >21% supplemental oxygen to maintain their oxygen saturation between 90-95%, which classified them as Moderate BPD according to the NIH diagnostic criteria for BPD. The patients' characteristics and risk factors identified are shown in Table 1. All the neonates were weaned off oxygen successfully; three have been discharged, while the fourth is awaiting discharge.

CONCLUSION. BPD is a cause of morbidity in extreme low birth weight (ELBW) infants and should be suspected in premature infants with recurrent or persistent respiratory distress. In general, there remains a lack of effective interventions that prevent BPD. Avoidance of mechanical ventilation with the early use of CPAP and surfactant replacement therapy has been shown to modestly decrease the incidence.

5. A CASE OF SUSPECTED TRISOMY 18 (EDWARD SYNDROME) IN A NEONATE IN A RESOURCE-LIMITED SETTING. POS/MSC/0005

Authors

Babatunde Oluwabusayo Deborah,* Ugochukwu-Nwosu Ihuoma Kelechi,* Dr Yakubu Peter Taye

*Department of Paediatrics, General Hospital Epe Lagos

BACKGROUND. Trisomy 18 (Edward syndrome) is a rare multiple malformation genetic disorder that results from an extra copy of chromosome 18. The common clinical characteristics include growth retardation, closed fists with finger overlapping, rocker-bottom feet, short sternum, neurologic, cardiac and renal malformations, and they rarely survive beyond the 1st year.

CASE REPORT. 35year old multiparous woman in a non-consanguineous marriage conceived naturally and had antenatal care at a primary health care centre in Epe. Mother had unsuccessfully attempted voluntary termination of pregnancy by consumption of unknown medication. She was delivered of a live male neonate via spontaneous vaginal delivery and the baby was referred to the General Hospital Epe, Lagos at the fifth hour of life on account of weak cry at birth and poor activity. The baby was managed as a case of severe perinatal asphyxia, neonatal encephalopathy stage two. Some dysmorphic features were observed which included floppiness, poor primitive reflexes, small disproportionate face, small chin, low set ears, apposition of the thumb with the middle finger, bilateral clubbed feet. The weight at presentation was 2.7kg. The baby had repeated episodes of apnoea while on admission and finally succumbed to illness on the fifth day of life.

CONCLUSION. Edward syndrome is a rare genetic disorder that affects multiple organ systems. Although we were unable to confirm diagnosis through antenatal ultrasound scan, karyotype or autopsy due to resource constraints and cultural aversion to autopsy, the baby's clinical features strongly suggested Trisomy 18. We report this case to raise awareness of this unusual medical condition, need for improved antenatal detection and possible genetic counselling.

6. RALSTONIA MANNITOLILYTICA: AN UNUSUAL CAUSE OF NEONATAL SEPSIS IN A PRETERM NEONATE. POS/MSC/0006

Authors: Ebere Agwu,* **Temitope Lawal,*** Lakmeel Kannachamkandy,* Temilolu Nwankpele,* Adetokunbo Joacquim.

*Department of Paediatrics, Evercare Hospital, Lekki, Nigeria.

BACKGROUND. Preterm neonates are a subgroup of new-borns who are at risk of neonatal sepsis due to their immature immune systems. Ralstonia mannitolilytica is a non-fermenting, gram negative bacteria; it is rare, opportunistic and causes severe infections in patients that are immunocompromised.

CASE REPORT. An extreme preterm, very low birth weight male neonate, first of a set of twins was delivered at 26 weeks gestation via spontaneous vaginal delivery with a birth weight of 1.08kg and required vigorous resuscitation. He was nursed in an incubator, and had surfactant administered shortly after delivery. He was maintained on continuous positive airway pressure. Initially commenced on intravenous Ceftazidime and Gentamycin. The first two blood cultures

grew coagulase negative Staphylococcus; the umbilical catheter tip grew Candida albicans. At about the 4th week of admission, he was noted to be pale, dyspnoeic, tachypnoeic with marked elevation of septic markers. Blood culture at this time grew Ralstonia mannitolilytica which was sensitive to Meropenem, Ciprofloxacin, Piperacillin/Tazobactam. He made clinical improvement when commenced on Ciprofloxacin. The intravenous Fluconazole was changed to Amphotericin B on account of persistent candidaemia. He had packed cell and plasma transfusions due to anaemia and deranged clotting profile. He sustained clinical improvement on the sensitive antibiotics and was successfully discharged on the 7th week of life at a weight of 1.82kg.

CONCLUSION. Ralstonia mannitolytica can cause late-onset neonatal sepsis in preterm newborns. There is therefore a need to be aware of the emergence of these unusual pathogens in the neonatal intensive units and the need to adhere to infection control protocols.

7. A CLINICAL AUDIT OF UMBILICAL VEIN CATHETERIZATION IN A LOW-RESOURCE PRIVATE NEONATAL INTENSIVE CARE UNIT IN NIGERIA. ORA/MSC/0007

Author: Nwoke, Nnamdi

Department of Paediatrics, Tunbridge Wells Hospital

BACKGROUND. Hospital-acquired infections in neonatal intensive care units (NICU) remain a pervasive problem, especially in low-resource countries like Nigeria. Neonates are at an increased risk due to their immature immune systems, long hospital admission, and invasive medical interventions. Umbilical vein catheterization is an invasive intervention frequently employed in NICU. While it offers reliable and prolonged intravenous access, it carries the risk of central line-associated bloodstream infection (CLABSI), especially when standard procedures are not followed.

OBJECTIVES.

- 1. Determine the risk of CLABSI in neonates who received umbilical vein catheterization in the facility.
- 2. Compare the facility's existing umbilical vein catheterization practice to published standards.
- 3. Propose practical modifications to this process to reduce the risk of CLABSI in neonates receiving umbilical venous catheters.

METHODS. This was a retrospective one-cycle audit analyzing the process of umbilical venous catheterization in neonates admitted into the NICU over eighteen months. The common practice of umbilical vein catheterization in the facility was determined through a focused group discussion with the doctors and nurses. This practice was compared to standards published in the clinical practice policy on "Umbilical Venous and Arterial Catheter (UVC/UAC) Placement and Removal" by the Department of Paediatric Newborn Medicine of Birmingham Women's Hospital.

RESULTS

Of the Thirty-two (32) neonates who had an umbilical catheter inserted, ten (10) had a confirmed central line-associated bloodstream infection (CLABSI). The risk of CLABSI was 31.25%. The average duration of UVC for neonates with CLABSI was 6.6 days compared to 4.3 days for those without (T value = -3.8156).

The current practice of Umbilical venous catheterization deviated from standard practice in terms of the equipment used and process. Alternatives to unavailable equipment were considered, and process modifications were recommended.

CONCLUSION

Umbilical vein catheterization is a necessary intervention in the NICU despite its risks. Research is needed to provide equipment and process standards for umbilical catheterization in low-resource settings.

8. NEAR-MISS OPPORTUNITY FOR DIAGNOSING AN INTERUPTED AORTIC ARCH; A CASE FOR MANDATORY PULSE OXIMETRY SCREENING IN NEWBORNS. POS/MSC/0008

Authors: Uzoamaka Nwigbo*, Terfa M. Asue,* Daniel Nelson,* Patricia Okeke,* Olivia Ashefor,* Laura-Claudia Oguah,* Iretiola Fajolu,* Ogochukwu Sokunbi,* Beatrice Ezenwa, * Chinyere Ezeaka

- * Department of Paediatrics Lagos University Teaching Hospital, Idi-Araba Lagos.
- [†] Department of Paediatrics, College of Medicine University of Lagos, Idi-Araba, Lagos.

BACKGROUND. Pulse oximetry is a fast and non-invasive means of estimating the oxygenation of blood, and a necessary screening tool for critical congenital heart defects. We report a near-miss case of complex congenital heart disease with the aim of emphasizing the importance of pulse oximetry screening as part of routine newborn care.

CASE REPORT. Baby F was a term female neonate delivered to a 35-year mother. Immediate postnatal period was uneventful, and baby was with mother in the postnatal ward. She was discharged on the third day of life, however prior to exit, the father noticed baby was breathing fast and the neonatology team was called. On examination, Baby had a Downes respiratory distress score of 7 and was desaturating in room air (78-87%). A diagnosis of? Cyanotic congenital heart disease to rule out neonatal sepsis was made. FBC was not suggestive of sepsis. Echocardiography showed: Interrupted aortic arch (type A), duct-dependent systemic circulation, hypoplastic aorta, severe sub-aortic obstruction, small-sized patent ductus arteriosus shunting bi-directionally, moderate atrial septal defect shunting bi-directionally, severe left ventricle diastolic and systolic dysfunction. The plan was to commence prostaglandins in the NICU and refer for urgent surgical intervention. The parents were counselled and linked to a facility in

Nigeria with relevant capacity. However, she progressed to cardiogenic shock with acute kidney injury; and died on the 6th day of life while parents were still sourcing funds.

CONCLUSION. Pulse oximetry is an essential screening procedure with a low false positive rate that helps detect critical congenital heart diseases in the newborn period. Newborns (including those delivered at home) should have pulse oximetry screening done at 24 to 48hours of life. Challenges with obtaining oxygen saturation or differential saturation should be documented and investigated, as early detection of heart diseases guides appropriate management before deterioration sets in.

9. THORACOSCOPIC REPAIR OF CONGENITAL DIAPHRAGMATIC HERNIA IN A NIGERIAN HOSPITAL: A CASE REPORT POS/MSC/0009

Authors: Temitope Lawal,* Arua Igwe,** Lakmeel Kanachamkandy ,*Ebere Agwu,* Temilolu Nwankpele,*Adetokunbo Joacquim.

- *Department of Paediatrics, Evercare Hospital Lekki, Nigeria
- **Department of Surgery, Evercare Hospital, Lekki, Nigeria

BACKGROUND. Congenital Diaphragmatic hernia (CDH) is an uncommon congenital abnormality of the diaphragm. It leads to protrusion of abdominal content into the thoracic cavity. It is characterized by varying degree of pulmonary hypoplasia and abnormality of the pulmonary vasculature. Despite advancements in medical and surgical intervention, management of CDH remains quite challenging.

CASE REPORT. Term male neonate delivered via emergency caesarean section on account of transverse lie and fetal distress. He was subsequently referred at about 22 hours of life following clinical suspicion and radiological confirmation of left Bochdalek hernia containing only bowel loops.

At presentation, he was in severe respiratory distress, he was admitted into the neonatal intensive care unit and maintained on continuous low pressure suctioning via the Replogle suction catheter. He was intubated and placed on mechanical ventilation and commenced on dobutamine infusion following review of the pre-surgical 2-D echocardiography which showed pulmonary hypertension and a patent ductus arteriosus.

On the second day of life, he was taken to the theatre for a thoracoscopic repair of a left Bochdalek diaphragmatic hernia after obtaining informed consent. Operative findings were that of a type B posterolateral Bochdalek defect with an intact hernia sac.

He was maintained on mechanical ventilation post-operatively. Enteral feeds commenced via naso-gastric tube on the first postoperative day (POD) and also had chest drains removed. He was extubated on POD 2, following review of post -operative chest x-rays which showed reexpansion of right lung. Enteral feeds by mouth commenced on POD 3. He made sustained clinical improvement and was discharged on POD 5.

CONCLUSION. Even though Congenital Diaphragmatic hernia is a rare congenital anomaly, successful management and favorable outcomes are dependent on early diagnosis and prompt and optimal intervention.

10. TACHYCARDIA BEYOND HEART FAILURE- A CASE OF SUPRAVENTRICULAR TACHYCARDIA. ORA/MSC/0010

Authors: Oluwadamilola Oladipo,* Iretiola Fajolu.⁺ Ogochukwu Sokunbi, ⁺ Beatrice Ezenwa, ⁺ Chinyere Ezeaka. ⁺

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

BACKGROUND. Supraventricular tachycardia (SVT) is a general term that includes essentially all forms of paroxysmal or incessant tachycardia except ventricular tachycardia. It is the most common form of arrhythmia in infants and neonates. If the heart rate is greater than 230 beats/min with an abnormal P-wave axis, supraventricular tachycardia is likely. The attack may last only a few seconds or may persist for hours running into days. Short paroxysms are well tolerated and may pose no danger to life, however with rapid and prolonged attacks, heart failure may ensure. Differentiating supraventricular tachycardia from sinus tachycardia may be difficult but it is important because sinus tachycardia requires treatment of the underlying problem rather than antiarrhythmic medication.

We present this case to remind caregivers of the possibility of SVT as a cause of tachycardia.

CASE REPORT. F.J, a term female neonate who was delivered to a 32yr old mother. She was admitted in the 3rd week of life on account of high-grade fever and fast breathing. No history of cough, force feeding or choking on feeds. Examination findings were fever, small volume pulses with tachycardia in the range of 180 – 200bpm, tachypnea in the range of 80-100bpm, tender hepatomegaly and Heart sounds 1,2 + 4/6 blowing murmur. Chest radiograph done showed cardiomegaly, electrocardiogram showed atrial flutter (2:1 block), and right ventricular hypertrophy. The echocardiogram showed bi-atrial, biventricular dilatation, moderate mitral regurgitation, and dysfunction of the heart. Diagnosis of supraventricular tachycardia (Atrial flutter with 2:1 block) was made with tachycardia-induced cardiomyopathy. The baby was treated with vagal stimulation using a cold compress, oxygen supplementation, intravenous fluid at two-thirds maintenance, diuretics, inotropes, and propranolol. Father was counselled on the diagnosis, the risk of sudden death and need for Intensive unit care. He was linked up with centers with facility for neonatal ICU. Child however succumbed 2 days later while awaiting conclusions on logistics for transfer to an Intensive care unit.

CONCLUSION. SVT is common in newborn though usually benign unless complicated by other cardiac anomalies. Timely recognition and management of complicated neonatal supraventricular tachycardia is imperative to prevent a deleterious outcome.

11. PERINATAL OUTCOME AMONG NEWBORN WITH MACROSOMIA DELIVERED IN A PRIVATE HOSPITAL IN LAGOS, NIGERIA. ORA/MSC/0011

Authors: Bashir OYEYEMI,* Okiemute OLIBAMOYO,* Ayodeji ADELOYE**

*Department of Paediatrics, Saint Nicholas Hospital, Lagos.

BACKGROUND. The prevalence, determinants, morbidity and mortality among newborn with macrosomia has been the subject of intense study in Nigeria. We did not come across any publication on perinatal outcome among newborn with macrosomia delivered outside of public and predominantly tertiary hospitals in Nigeria.

OBJECTIVES. To determine the prevalence of macrosomia and the morbidity and mortality pattern among newborn with macrosomia in our facility

METHODS. We conducted a retrospective review of medical records of all babies weighing 4kg and above at birth, delivered in our hospital between January 2017 and December 2022. Data extracted from the record were entered into pre-designed excel sheet and analysed using Microsoft Excel.

RESULTS. 68 of 998 (68.1/1000) deliveries were macrosomic with a male predominance (M:F ratio of 2.8:1). Macrosomia was of grades 1, 2 and 3 in 58(85%), 9(13.2%) and 1(1.5%) newborn respectively. Caesarian section was the mode of delivery in 31 (45.6%) macrosomic newborns, while 37 (54.4%) were delivered vaginally. One of the vaginal deliveries was assisted with vacuum extraction. Among these babies, 22 (29.4%) had neonatal jaundice, 13 (19.1%) had hypoglycaemia, 4 (5.9%) had neonatal sepsis, 3(4.4%) each had erythema toxicum neonatorum and caput succedaneum while 1(1.5%) each had perinatal asphyxia, ophthalmia neonatorum, clubfeet, dental cyst and undescended testis respectively. No still birth or birth trauma was recorded among the macrosomic newborns. 1/68 (1.5%) neonate died from Neonatal Sepsis complicated by Neonatal Jaundice and Severe Anaemia. 8/68 mothers (11.8%) had disorder of glucose metabolism including 4(5.9%) with gestational diabetes, 3 (4.4%) with diabetes mellitus and 1 (1.5%) with impaired glucose tolerance.

CONCLUSION. Among newborn babies delivered in our facility, the prevalence of macrosomia was (68.1/1000) and in the absence of neonatal sepsis was associated with good perinatal outcome.

12. EFFECT OF AN UPDATED ESSENTIAL NEWBORN CARE CURRICULUM ON KNOWLEDGE AND SKILLS OF HEALTHCARE PROFESSIONALS AT DIFFERENT LEVELS OF PRACTICE AND EXPERIENCE. ORA/MSC/0012

Authors

^{**}Department of Obstetrics/Gynaecology, Saint Nicholas Hospital, Lagos.

Fajolu IB,* Hippe D,** **Olawuyi O,**# Berkelhamer S, ,@ Engmann CM,## James JE,@ Feltner J, @ Quach V, @ Adeboboye CA,* Ezeaka VC,* Umoren RA@

BACKGROUND

In 2016, the Federal Ministry of Health harmonized the Essential Newborn Care Course by incorporating global best practices for healthcare professional training with the aim of reducing neonatal mortality. In September 2022, the World Health Organization (WHO) released interim updates to the ENC course (ENC1 and ENC2).

OBJECTIVES. To evaluate the impact of the WHO ENC1 and ENC2 training on neonatal care knowledge and resuscitation skills on nurses and midwives who care for newborns in primary, secondary and tertiary healthcare facilities.

METHODS. Nurses and midwives from 23 health facilities in Lagos with a direct clinical role in newborn care were recruited. Those who received ENC training in the past 12 months were excluded. In-person training of participants was done in two 2-day sessions. Pre-and-post-training assessments for ENC1 and ENC2 (knowledge check (KC), bag and mask ventilation skills check (BMV), CS A and B) were performed, and the results compared.

RESULTS. Of the 70 participants, 37 (53%) were midwives, 26 (37%) were >41 years, 34 (49%) had 5-10 years clinical experience and 39 (57%) had no prior training. Post-training scores were significantly higher than pre-training scores for all tests (p<0.001). Before training, KC scores were >75% on average, while practical skills (BMV and CS) scores were relatively low (mean, 33.3-49.8%, s.d, 14.6-25.4). Midwives had higher KC scores than nurses pre-training (p = 0.067) but nurses demonstrated greater improvement in post-training KC scores (p = 0.015). On the average, pre-training BMV scores were higher with increasing facility level (p = 0.008) and years of experience (p = 0.024) but the significance was lost after training (p = 0.70 and p = 0.53, respectively).

CONCLUSION. Healthcare professionals providing newborn care had low pre-training skills. The improvements in all post-training assessment scores emphasize the success of the training program and the importance of training all cadres of HCW.

^{*}Department of Paediatrics, College of Medicine, University of Lagos, Nigeria.

^{**}Fred Hutchinson Cancer Center, Seattle, WA, United States

^{*}Lagos University Teaching Hospital, Nigeria.

[®] University of Washington School of Medicine, Seattle, WA, Unites States.

^{##} University of Washington & PATH, Shoreline, WA, Unites States.

[†]Lagos State Primary Healthcare board

Olutekunbi O,* Oluwabiyi O,** Odedina A,# Oshinowo O,* Oyejoke Oyapero,** Olatunji T,[@] Showunmi F,[@] Abe O, ^{@,@} Ayanga Ogunleye GA⁺ Anthony Ogueji⁺⁺

| *Massey | Street | Children's | Hospital | **General | Hospital | Ifako | Ijaye | |
|----------------------|----------|------------|----------|-----------|----------|----------|----------|--|
| #Lagos | | Island | | Maternity | | | Hospital | |
| ##General | | Hospital | | | | | Ikorodu | |
| [@] General | | Hospital | | | | | Isolo | |
| ^{@@} Mother | | and | Child | Center | Eti | | Osa | |
| ++General | Hospital | | | | | Alimosho | | |

^{***}Newborn Essential Solutions and Technologies (NEST360)

BACKGROUND

Breast milk is nutritionally superior to other milk for human babies. It meets the nutritional needs of babies and protects against infection. Not all babies benefit from it. The WHO recommends, such babies receive a next preferred choice of donor breast milk which is not common in Nigeria.

OBJECTIVES. To determine mother's perception of donor breastmilk and factors that affect it's acceptability in Lagos Nigeria.

METHODS. Questionnaires were administered by a research assistant to mothers of healthy babies attending the immunization and neonatal clinics in seven public hospitals in Lagos state. MSCH, LIMH, GH Ifako Ijaye, GH Isolo, GH Alimosho, GH Ikorodu and GH Eti-Osa. The study period was from September to November 2021. Ethical approval was from LASUTH and informed consent from each participant.

RESULTS

A total of 1750 questionnaires was analyzed. Mean age of mothers was 30.9 ± 6.3 while that of the fathers was 37 ± 6.9 . Most of the mothers (59.2%) had tertiary education, 39% had secondary education while 1.8% had primary or no education. Few of them (11.2%) had some knowledge of DBM while 88.8% had no prior knowledge. Sources of information were healthcare providers (60.2%), friends (23%) and social media (16.8%). About 83.5% will not allow their babies receive DBM. Reasons for this include religion (77.5%), culture (15.9%), risk of infection (2.1%) and husband's refusal (4.4%). There is a significant association between knowledge of DBM and perception to receiving breastmilk (p = 0.001).

CONCLUSION. These results offer implications for governments, community leaders, and health authorities (clinicians and community health workers). It recommends the need for public health education at all levels which should focus on the benefits and safety of DBM.

14. APLASIA CUTIS CONGENITA A CASE REPORT. POS/MSC/0014

Authors

Olutola EO, Oladeji AO, Asunmo T, Owolabi BA, Odedina A, Olutekunbi OA. Massey Street Children's Hospital

BACKGROUND. Aplasia cutis congenita (ACC) is a rare congenital skin defect characterized by a focal or extensive absence of the epidermis, dermis, and occasionally subcutaneous tissues or bone. The disease can appear on any part of the body, about 70% occur at scalp vertex. It can be associated with other congenital anomalies.

We report a case of membranous Aplasia Cutis Congenita Group 1 in a term female neonate. **CASE REPORT.** A 3100g full term female neonate delivered at 40weeks 4 days gestation by spontaneous vaginal delivery to a 33year old Para 3 (3A) nursing officer.

Pregnancy was spontaneously achieved and desired. Mother had been on tablet folic acid 5mg daily pre-conception. No history of exposure to teratogens. Pregnancy, labour and delivery were uneventful.

At birth, she was noticed to have a scalp and underlining cranial defect at the occipital area measuring 6cm by 5cm, a translucent thick membranous covering of the brain tissue, no obvious herniation of brain tissues. No other anomalies were seen.

Brain MRI done revealed an out pouching in the posterior aspect of the skull near the posterior fontanelle with underlying skin and bony defect. No obvious herniation of the brain parenchyma. Diagnosis: Membranous Aplasia Cutis Congenita Group 1. The defect was managed conservatively due to its small size by daily wound dressing and it healed spontaneously.

CONCLUSION. ACC can be managed both conservatively and surgically. The decision between conservative and surgical management must be individualized according to lesion size and location.

15. A ONE-YEAR REVIEW OF PRETERM ADMISSIONS IN MAJOR HOSPITALS IN LAGOS STATE

Authors: Oluwabiyi O,¹ Olutekunbi O,² <u>Babatunde O,³ Adegboyega T,⁴ Ayanga G,⁴ Fajolu I,⁵ Ezenwa B,⁵ Ezeaka C,⁵ Omoniyi O,⁶ Udoh E,² Adesina A,³ Mustapha A,³ Duke E,⁰ Igweonu O,⁰ Sowunmi A,¹⁰ Renner A,¹⁰ Akintola,¹⁰ Odedina A,² Disu E,¹¹ Imam Z,¹¹ Ubuane P,¹¹ Alaje E,¹¹ Kehinde O,¹¹ Ewedemi F,¹² Oyapero O,¹² Mayegun R,¹² Akande A,¹ Agboola A,¹³ Olibamoyo O,¹³ Emokpae A,¹⁴ Ikuerowo A,¹⁴ Adeniyi O,¹⁵ Faleti A,¹⁵ Owowo U,¹⁶ Oyeyemi B,¹¹ Dosekun E,¹³</u>

¹Ifako General Hospital, ²Massey Street Children's Hospital, ³Epe General Hospital, ⁴Alimoso General Hospital, ⁵Lagos University Teaching Hospital, ⁶Harvey Road General Hospital, ⁷Badagry General Hospital, ⁸Randle General Hospital, ⁹Amuwo Odofin Mother and Child Centre, ¹⁰Isolo General Hospital, ¹¹Lagos State University Teaching Hospital, ²Ikorodu General Hospital, ¹³Ajeromi General Hospital, ¹⁴Gbagada General Hospital, ¹⁵Orile Agege General Hospital, ¹⁶Lifeline Childrens' Hospital, ¹⁷St. Nicholas Hospital, ¹⁸Outreach Hospital

Background. Neonatal morbidity and mortality remain unacceptably high in Nigeria. Preterm births and its complications are a major contributor to this high rate. The birth of a preterm baby places a huge medical and financial burden on the children, their family and the health care system.

Aim. To showcase the pattern of admissions and outcome of preterm deliveries in some major hospitals in Lagos.

Method. A retrospective study. Data of preterm admissions and outcomes were collated from 18 major hospitals in Lagos state from Nov 2021 to Oct 2022. Data was documented and analyzed.

Results. A total of 18 facilities were involved in this activity. Total deliveries across the facilities ranged from 615-3014. Total preterm admissions ranged from 45 - 756. The average preterm mortality was 16.75%. Mortality was highest among the ELBW babies. Major morbidities identified include RDS, IVH, sepsis, congenital anomalies, NEC and perinatal asphyxia. Poor stabilization, transport and referral system across facilities in the state, inadequate manpower, poverty, delays in referral, poor regulation of IVF centers accounting for higher numbers of multiple births contributed to the high mortality.

Conclusion. Preterm mortality remains a major contributor to the high neonatal mortality rate. A lot of investment in newborn health ranging from legislation, training and retraining of health workers, a viable health insurance scheme, functional and adequate referral system will go a long way in improving outcomes of preterm births in our different hospitals.

Transitional care of very preterm infants: A case for supervised home-based care. ORA/MSC/0016

Authors

Mosebolatan OA,* Tongo OO**

*Department of clinical nursing, UCH, Ibadan.

*Department of peadiatrics, UCH, Ibadan.

BACKGROUND. Transitional care as related to preterm infants refer to care that is targeted at ensuring that neonates continue to have access to adequate and standardized care as they transition from hospital based care to their family homes; to minimize adverse consequences and aid survival. Skill transfer from health care professionals to parents is key.

Home based care: standardized health care rendered in patient's real home environment, with positive influence on improvement and survival.

Case Report: This is a case Report of a 10 week old 30 weeker (corrected age 40weeks GA) delivered to a 30yr old mother on account of uncontrolled hypertension and later pre-eclampsia. No other risk factors to the baby. Birth weight was 1.1kg. No asphyxia. Baby was admitted into the NICU for 2 weeks.

Due to prevailing logistics reasons, baby was discharged home at 32+5wks to the care of a trained Peadiatric neonatal nurse for home based care. Care at home on KMC, adequate nutrition with mum's own milk, caffeine citrate, calcium, Vitamin D, iron supplements, prevention of infection and good thermal control for 6weeks. The mother, father and grandmother were all actively involved in the care. Baby had 2 episodes of apnea and was successfully resuscitated at home. No history of readmission till date. Has had 1st set of immunization and ROP screening at 5 weeks. Had genital circumcision at 70th day of life. Present weight 2.75kg. Family coping and Baby thriving well.

CONCLUSION.

The case presented showed that

- * Supervised home based care is possible by trained neonatal nurses.
- * SHBC can rid hospital of congestion to reduce neonatal mortality.
- * Community neonatal care is an alternative to be looked into for survival of neonates in the face of challenging hospital bureaucracies.
- * Family centred care is encouraged.

Key words: Transitional care. Supervised home based care.