Posters of the First Biannual General Meeting and Scientific Conference of the African Neonatal Association 2025

P1

Assessing newborn and stillbirth routine health information systems data: findings from the IMPULSE Phase 1 Study

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Introduction: Reliable data for newborns and stillbirths is essential to ensure every newborn survives and thrives. The IMPULSE Phase 1 study was designed to assess the quality and use of routine data in four countries with high burdens of neonatal deaths and stillbirths.
Methodology: We used mixed-methods between 2022-24 across 154 sites in the Central African Republic (CAR, n=21), Ethiopia (n=35), Tanzania (n=47), and Uganda (n=51) with the open access Every Newborn-Measure Improvement for Newborn and Stillbirth Indicators (ENMINI) Tools and two novel instruments to assess i) health and data professionals' perspectives regarding routine data n=313 respondents ii) individual case notes to measure 41 key data elements in a Neonatal Minimum Data Completeness Index (N-MDCI) n=1459 case notes
Result: Health facilities lacked standardized paper registers and indicator definitions, with reporting processes hindered by poor electricity and internet access. Data completeness in registers was suboptimal: low birth weight 81%, neonatal mortality 79%. In case notes, overall N-MDCI was 53.6%, (national hospitals 66%, first-level referral facilities 42.9%). Factors to improve data quality ranged from 0–57% in CAR, 36–84% in Ethiopia, 23–76% in Tanzania and 31–93% in Uganda. Factors to improve data use varied widely, 0% in CAR to 100% in Ethiopia and Tanzania, consistently lower in health facilities than data offices in all countries.
Conclusion: Improvements in routine systems including data standardization and infrastructure are needed to ensure high quality data are available for clinical care, to support quality improvement and for evidence-based public health in high-burden countries

P2

Introduction of Neonatal nurse education in Nigeria, Partnerships with COINN: Key contributions of NEST 360 in its Institutionalisation.

Neonatal nurses, needed for the delivery of quality newborn care and essential for attaining the SDGs by 2030, are few in Nigeria . The Nigerian Society for Neonatal Medicine sought to enable this training in Nigeria. Partnerships and collaboration with the Council of International Neonatal Nurses (COINN) and Newborn Essential Solutions and Technologies (NEST 360) have enabled the accomplishment of the Neonatal Nurse education program in Nigeria. We present here a description of the key processes that led to the achievement of this goal.
With the approval and authorization from the Federal Ministry of Health, the Nursing and Midwifery Council of Nigeria (NMCN) adopted and adapted the COINN training curriculum, and implemented it in 6 Pilot Centres that are NEST-supported.
From each site, 10 participants were selected, making a total of 60 registered on the COINN Platform for Online Training, 40/60 (66.67 %)of whom completed the training. These 40 became eligible for COINN evaluation to advance to the next training phase, which is 8 weeks of mentorship by COINN mentors and the site Neonatologist. Upon completion, the candidates then began a 4-week NMCN revision course that prepared them for the NMCN licensure examination. The only site that had a Visitation from NMCN was the site for the examination.
38 Neonatal Nurses have been certified, registered by both COINN and NMCN for Nigeria.
Conclusion: Partnerships and collaborative efforts of many stakeholders enabled the institutionalisation Process. 3 institutions accredited by NMCN continue training.

Key words: Essential Partnerships; Collaboration; Neonatal Nurse.

P3

Technology enables proactive care transition: experience and impact of the IMPALA patient monitoring system in two Rwandan neonatal intensive care units.

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Background: Over 3 million children in low-resource settings die annually due to scarce resources. The IMPALA system combines vital signs monitoring with intuitive software to aid healthcare providers (HCP) in risk assessment and early detection. IMPALA is sustainable, life- and cost-saving in pediatric care in Malawi.We present HCP experiences, parent perspectives, sustained usage data, and patient outcome trends for two neonatal intensive care units in Rwanda.
Methods: This ongoing implementation study uses a mixed-methods design with pre- and post-IMPALA data. The NICUs in teaching hospitals Nyamata and Rwamagana previously used manual monitoring and admit ~1600 newborns annually. Nurse-to-admission ratios are 1:8 and 1:7, with one pediatrician, no neonatologist. Monitors, a server, and decision support tablets were installed in September 2024, and HCPs trained.
Results: HCPs reported better detection, timely intervention, and improved clinical decision making. A central patient overview allowed rapid prioritization, optimizing scarce nurse time. Respondents reported increased self-efficacy, time savings, and work fulfillment. Usage increased over time to >75%. Motherssaid IMPALA helped them track their baby's health and alert staff to abnormal vital signs. Neonatal mortality dropped from 9.8% to 7.8% in Nyamata after IMPALA introduction and stayed stable in Rwamagana at 4.4%. Average admission duration increased by 22% in Nyamata and reduced by 8% in Rwamagana.
Conclusion: IMPALA is an acceptable, sustainable intervention in severely resource-constraint neonatal care settings, enabling HCPs to work more proactively, save time and lives in higher mortality contexts. If validated, it will provide an effective solution for reducing neonatal mortality.

P4

Data that drives change: development and use of a dashboard for small and sick newborn care in Kenya, Malawi, Nigeria, and Tanzania

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Background: NEST360 aims to improve small and sick newborn care (SSNC) in hospitals across Kenya, Malawi, Nigeria, and Tanzania through a package of interventions. Access to and use of data are essential for data -driven decisions. SSNC dashboards to increase data use are often lacking, delaying care improvements. Across NEST360, mortality change varied between hospitals, with significant reduction ranging from 14–54%, coinciding with data use and quality improvement (QI) efforts. We describe NEST360's SSNC dashboard and its use across 68 neonatal units in four countries.
Activities: The dashboard was designed to support performance measurement at the hospital, national and NEST360 levels. It draws from patient and hospital data. It displays performance metrics over time, against targets, and is designed for benchmarking within and across hospitals and countries. It includes data on admissions, outcomes, interventions, devices, data quality, and facility readiness.
Results: The dashboard was operationalized in 68 hospitals in 2023 accompanied by virtual and onsite training. Usage was high with 65,662 logins from5/2023-6/2025: 67% hospital, 30% NEST360, 3% Ministries of Health.93% of hospitals logged in monthly with 29 logins per hospital/month, on average. Uses include:
Hospital: Designing and tracking 375 QI projects
National: Supporting 42 cross-facility learning sessions
NEST360 Program: Guiding decisions on prioritization
Conclusion: The dashboard empowers health workers, managers, and policy makers to access data to inform actions. The global SSNC community should prioritize similar tools to bridge data and action. To ensure sustainability and scale-up, integrating SSNC dashboards into national health information systems is critical.

P5

Early-Onset neonatal liver failure suspected to be gestational alloimmune liver disease (GALD): A case report and therapeutic challenges from a Resource-Limited Setting

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Neonatal liver failure is a rare but life-threatening condition with diverse etiologies. Gestational Alloimmune Liver Disease (GALD) is an immune-mediated form of hepatic injury that presents early in life. Prompt diagnosis and immunotherapy can be lifesaving but are challenging in resource-limited settings.

We report a case of a 2-month-old term male infant, the third of three siblings, who presented at one week of life with persistent jaundice, dark urine, and progressive abdominal distension GALD was suspected. Management included fat-soluble vitamin supplementation, diuretics, albumin, fresh frozen plasma, whole blood transfusions, intermittent paracentesis as indicated, and a double-volume exchange transfusion followed by intravenous immunoglobulin (IVIG). Breastfeeding was replaced with formula. Despite aggressive therapy, conjugated bilirubin and INR continued to rise, while albumin levels only improved with albumin infusions. Liver enzymes initially normalized, but cholestasis and coagulopathy worsened. Resource constraints delayed timely IVIG administration and central line placement. The infant subsequently developed hypoglycemia, oral bleeding, and an apneic episode. He failed to respond to glucose boluses and resuscitative efforts and was pronounced dead at 2 months of age.

This case illustrates the diagnostic complexity and therapeutic challenges of managing suspected GALD in low-resource settings, highlighting the need for improved access to timely interventions and neonatal liver care.

Keywords: Neonatal liver failure. Gestational alloimmune liver disease (GALD), Resource-limited settings

P6

Maternal stress and associated factors in the special care baby unit of University of Port Harcourt Teaching hospital

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Background: The hospitalisation of a newborn imposes significant stress on mothers, adversely affecting their mental health and potentially impacting the infant's psychological and neurocognitive development. In Neonatal Intensive Care Units (NICUs), care efforts are predominantly directed at the babies, often overlooking the emotional impact on caregivers. Recognising and quantifying maternal stress can inform more holistic, family-centred care. This study assessed the stress levels of mothers whose neonates were admitted to the Special Care Baby Unit (SCBU) at the University of Port Harcourt Teaching Hospital and associated stressors. *Methods:* A cross-sectional study was conducted involving 55 mothers whose neonates were admitted to the SCBU. Stress levels were evaluated using an adapted Parental Stressor Scale for NICU(PSS-NICU), which measures stress levels related to sights and sounds, baby's appearance and behaviour, parental role and relationship with baby, and staff behaviour and communication on a 5-point-likert scale. *Results:* Half of the participants (50.9%) reported moderate stress. The highest stress score was observed in the subscale measuring parental role alteration and relationship with the baby (mean ± SD: 2.82 ± 1.24), followed by stress related to the infant's appearance and behaviour (1.82 ± 0.96). Higher stress levels were significantly associated with younger maternal age (<35 years), having just one baby, and having a low-birthweight neonate (<2.5 kg) ($p < 0.05$). *Conclusion:* Maternal stress in neonatal care settings is substantial, particularly in relation to disrupted parental roles. Interventions aimed at improving maternal involvement in their neonates' care are essential to mitigate these stressors and enhance

P7

Parental stress, depression, anxiety and participation to care in neonatal intensive care units: results of a prospective study in Italy, Brazil and Tanzania.

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Background: Studies on parental mental health and participation in care in neonatal intensive care unit (NICU) are lacking.

Methods: Parental stress, anxiety, depression and participation in care were assessed prospectively in eight NICUs (Italy, Brazil and Tanzania) utilising: the Parental Stressor Scale in NICU (PSS:NICU); the Edinburgh Postnatal Depression Scale (EPDS) and EPDS-Anxiety subscale (EPDS-A); the Index of Parental Participation in NICU (IPP-NICU). Univariate and multivariate analyses were conducted.
Results: Study outcomes were assessed on 742 parents (Brazil=327, Italy=191, Tanzania=224). Observed scores suggested a very high frequency of stress, anxiety and depression, with an overall estimated frequency of any of the mental health condition of 65.1%, 52.9% and 58.0% in Brazil, Italy, Tanzania, respectively ($p<0.001$). EPDS scores indicating depression were significantly more frequent in Tanzania (52.3%) ($p<0.001$). Parental participation in care was also significantly higher in Tanzania (median IPP-NICU=24; $p<0.001$). Severe stress (PSS:NICU≥4) was significantly more frequently reported in Brazil(22.6%; $p<0.001$). Factors independently associated with either parental stress, anxiety or depression varied by country. A significant association with parental participation in care was lacking.
Conclusions: Study findings suggest that parental mental distress is extremely frequent in NICUs despite diversity in the setting, requiring immediate action. Further studies should explore the appropriate level of parental participation in care.

Key words: mental health, family-centered care, participation in care.

P8

Congenital mesoblastic nephroma: A case report

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Congenital Mesoblastic Nephroma (CMN) is a mesenchymal renal tumour of early life. It is the most common non-Wilms' renal tumor with a median diagnosis at 2 months and over 90% of cases appearing within the first year of life. Although diagnosis can be made through imaging, it is often recognized in the neonatal period when the newborn presents with an abdominal mass. There are three histologic types; classic, cellular and mixed type. Treatment is often by radical nephrectomy with great results, though the cellular type may require adjuvant chemotherapy as it is prone to becoming aggressive.
We report on a case of a 2-day old term male neonate born to a 27-year-old mother through spontaneous vertex delivery (SVD).
He presented with a right sided abdominal mass from birth. He underwent a right radical nephrectomy that was confirmed histologically to be Congenital mesoblastic nephroma (cellular type) Stage 1.

Key words: Congenital, mesoblastic nephroma, nephrectomy

P9

Expérience de la pratique d'allaitement des agents de santé féminins du CHU de Treichville.

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Introduction: L'allaitement est l'intervention la plus efficace pour réduire la morbi-mortalité infantile. Pour son application optimale, le personnel de santé joue un rôle clé exigeant leur propre adhésion. L'objectif de cette étude travail était d'évaluer l'expérience de la pratique d'allaitement par les agents de santé.
Méthode: une étude transversale descriptive ayant inclus les agents de santé féminin des services de pédiatrie et de gynécologie-obstétrique.
Résultats: Soixante et un agents de santé ont été inclus. Leur âge était compris entre 20 et 49 ans, et étaient en exercice depuis au moins deux ans. Parmi elles, 96,7% avaient allaité leur enfantet 50% de mise au sein précoce. Cependant, seulement 36% avaient allaité exclusivement pendant six mois. La diversification était faite à six mois pour 85,2% des cas et 5% avaient poursuit l'allaitement jusqu'à deux ans. 98,4% avaient une bonne connaissance des avantages de l'AME.
La reprise de travail et le manque de salle d'allaitement dans les services étaient les obstacles majeurs à la pratique de l'AME (85% des cas).
Conclusion : les agents de santé ont une pratique insuffisante de l'AME pour plusieurs raisons dont la reprise de travail. Des mesures sont donc nécessaires pour permettre aux agents de santé d'assurer leur rôle de mère et d'assurer la promotion et soutien de l'allaitement.

Mots clés: expérience, allaitement, agents de santé, CHU Treichville/ Abidjan.

P10

Investigating the contributing factors to third delay in maternity and evaluating the effectiveness of a birth asphyxia clinical audit tool in two selected district hospitals in Rwanda.

Introduction: Neonatal mortality in Rwanda dropped from 44 to 20 deaths per 1,000 live births between 2000 and 2015, but plateaued at 19 by 2020. Birth asphyxia causes 25% of neonatal deaths, largely due to delayed recognition and response in facilities. This protocol outlines the implementation of a structured audit tool to prospectively track process indicators, identify modifiable care failures, and guide targeted quality-improvement interventions to prevent neonatal asphyxia in two Rwandan district hospitals.
Methods: We will conduct a quasi-experimental interrupted time-series study in two high-volume district hospitals in Rwanda, integrating the Ministry of

Health's birth asphyxia audit tool into routine care, alongside standardized staff training and on-site mentorship. Pre and post-intervention data will be analyzed to assess changes in clinical care and neonatal outcomes.
Results (Expected): It is hypothesized that the audit tool will lead to improved clinical decision-making and neonatal resuscitation practices. These gains should translate into a lower incidence of birth asphyxia, reduced early neonatal mortality, and fewer referrals to higher-level care. Embedding structured audit reviews and quality improvement cycles is expected to improve clinical practice among care providers.
Conclusion: This study will provide insights into the drivers of institutional delays in neonatal care and generate evidence on the impact of audit-driven interventions in Rwanda. Findings will guide policy, scale-up, and practice improvements for preventing birth asphyxia in similar low-resource settings.

Key words: Birth asphyxia, clinical audit and neonatal outcomes.

P11
Clinical judgement, innovation and experience in neonatal sepsis management in Zimbabwe: voices from the frontline

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Background: Neonatal sepsis is a leading cause of neonatal morbidity and mortality in Sub-Saharan Africa. In resource-limited settings including Zimbabwe, the absence of diagnostic tests such as blood cultures, means that effective management relies heavily on clinician expertise. Depending on the setting, this critical decision-making role is held by nurses (provincial, rural and peri-urban facilities), or doctors (central hospitals).
Aims: To explore clinical perspectives, challenges, and innovations in diagnosing and managing neonatal sepsis across Zimbabwean healthcare settings.
Methods: Qualitative data were collected between July and November 2024 through focus group discussions and semi-structured interviews with clinicians at Sally Mugabe Central Hospital, Chinhoyi Provincial Hospital, Murereka Peri-Urban Clinic and Mtala Rural Clinic. Data underwent thematic analysis to identify core themes outlining clinicians' practices in neonatal sepsis.
Results: Themes identified included clinical decision-making, guideline use and adherence, training needs, and digital tools. Clinicians described strong practical approaches to identify sepsis, emphasising clinical features such as temperature, feeding behaviour, and cord care. While national guidelines were widely used, their application was hindered by drug shortages and limited diagnostics, necessitating improvisation. Nurses highlighted understaffing especially at night, as a barrier to timely diagnosis. Clinicians expressed high confidence in their clinical judgment despite limited formal training in identifying sepsis, and had strong interest in digital tools to support decision-making.
Conclusion: Clinicians in Zimbabwe utilise innovative, experience-based strategies when managing neonatal sepsis amidst systemic challenges. This study stresses the need for targeted interventions, enhanced training, decision-support tools, and policies promoting consistent guideline-adherent care. Future innovations in digital tools and investment in workforce capacity are crucial to improve outcomes.

P12
Indications, associated factors, and outcome of switching antibiotics from first to second line in hospitalized newborns in the Limbe and Buea regional neonatal services

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Background: Neonatal infections continue to be a leading cause of morbidity and mortality in neonates, particularly in low- and middle-income countries including. Early and effective antibiotic is essential in treatment of neonatal infections management,. The objective was to determine the indications, prevalence, short-term hospital outcome as well as factors associated with switching antibiotic from 1st line to 2nd line in hospitalized neonates,
Methods: A hospital-based cohort study was carried out over a period of 6 months including all neonates born at the Limbe Regional Hospital and the Buea Regional Hospital, Cameroon. Data collection forms, including demographic data, antenatal history and perinatal history, clinical presentation and discharge status. Associations were derived by multivariate analysis from logistic regression. Statistical significance was set at a p-value < 0.05 at 95% confidence interval.
Results: Proportion of neonates who were switched from first to second line antibiotherapy was 15.5%. Clinical deterioration were the main indications for switching antibiotics. Factors significantly associated with antibiotic switch included; fewer ultrasounds (≤3)

(aOR=1.40, p=0.001), maternal antenatal visits <4 (aOR=3.33, p=0.011), presence of fever (aOR=1.25, p=0.017). Incidence of prolonged hospital stay (51.5%) as well as a higher mortality rate of 4.35% amongst neonates who had antibiotics switched from first to second line.
Conclusion: The study revealed a relevant proportion of neonates requiring a switch from first- to second-line antibiotics, driven by clinical deterioration and poor clinical progress of the newborn. Modifiable factors such as fever as presenting symptoms and insufficient ANC care were associated to antibiotic switch, thus increasing the chances of neonatal morbidity and mortality.

Keywords: Antibiotic switch, first line, neonatal outcome, associated factors, second line,

P15
Infections bactériennes néonatales dans le service de pédiatrie du Centre Hospitalier universitaire de Bogodogo. (OUAGADOUGOU BURKINA FASO).

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Introduction: L'infection bactérienne néonatale demeure un problème majeur desanté publique dans les pays en voie de développement. Les signes cliniques étantpeu spécifiques, l'absence de marqueurs biologiques sensibles et spécifiques rend leur diagnostic difficile.
Objectif: Etudier les aspects épidémiologiques, cliniques, paracliniques, le profil etla sensibilité bactériologique des infections bactériennesnéonatales dans le service de pédiatrie du Centre Hospitalier Universitaire de-Bogodogo.
Methodologie: il s'est agi d'une étude transversale à but descriptif avec Collecte de données prospectives qui a porté sur les enfants âgés de moins de 28 jours suspects d'infection bactérienne néonatale du 1er Aout 2022 au 31 Octobre 2022
Resultats: Sur 309 nouveau-nés, 35 nouveau-nés (11,33%)ont présenté une
Infection confirmée par la bactériologie. La majorité des nouveau-nés (87,38%) avait un âge inférieur ou égal à 3 jours. L'anomalie du LA (31,14%), la prématurité (26,59%), la fièvre maternelle (25,53%) étaient les principales données anamnestiques. Les principaux germes mis en évidence étaient : *Klebsiella pneumoniae* (62,86%) et *E. coli* (37,14%). Les germes retrouvés étaient sensibles à l'amikacine, au méropénème et à la piperacilline-tazobactam mais résistant à la
Ceftriaxone.
Conclusion: Le respect strict de l'hygiène et de l'asepsie, le suivi régulier des CPN constituent la base de la prévention des infections bactériennes néonatales.

Mots-cles: Nouveau-né, infection, bactéries, CHU Bogodogo, Ouagadougou, Burkina Faso

P16
Profil épidémiologique du paludisme post-transfusionnel au service de Médecine Néonatale du CHU Mère-Enfant Fondation Jeanne Ebori de Libreville de 2022 à avril 2025.

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Introduction: en période néonatale, on distingue le paludisme congénital, communautaire et post-transfusionnel. Il s'agit de la première maladie due à la transfusion sanguine en Afrique, mais encore sous-estimée en néonatologie. Notre objectif était de décrire les caractéristiques épidémiologiques du paludisme post-transfusionnel au service de médecine néonatale du CHUMEFJE.
Méthodologie: étude rétrospective, descriptive réalisée de janvier 2022 à avril 2025 au service de néonatologie du CHUME-FJE. Tous les nouveau-nés présentant un paludisme (TDR et goutte épaisse positifs) était inclus .
Résultats: 44 cas de paludisme néonatal soit 2,08% (44/2116) étaient observés. Repartiesen paludisme congénital 15,9% (7/44), paludisme communautaire 20,4% (9/44) etenpaludisme post transfusionnel 63,6% (28/44). Pour ce dernier, le sexe ratio était de 0,56 (10/18). L'AG moyen de 30,3SA(26SA à 35SA).Dans100% (28/28) de cas, il s'agissait de nouveau-nés prématurés (très grande prématurité 10,7% (3/28), grande prématurité 57,1% (16/28), prématurité moyenne 32,1% (9/28). Les 2 signes cliniques observés étaient la fièvre (53%) et la pâleur (14,3. La parasitémie moyenne était de 21068 T/µL de sang (extrêmes 51 à 135520 T/µL). L'artésunate était utilisé dans 92,9% (26/28) des cas pour le traitement. La goutte épaisse restait positive dans 19,2% (5/26) des cas après la septième dose et dans 11,5% (3/26) des cas après la neuvième dose.
Conclusion: le paludisme post transfusionnel néonatal est la forme la plus fréquemment observée. Une réflexion sur la charge parasitaire des poches à transfuser en période néonatale est nécessaire.

Mots clés: Paludisme, post transfusion, nouveau-né, CHUMEFJE, Gabon.

P17

Clinical-epidemiological profile of neonatal mortality at Maputo Central Hospital in 2023

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An important indicator of human development is neonatal mortality, as it can reflect the resources available for maternal and child health care. The present study aimed to analyse the clinical and epidemiological profile of deaths of newborns who were admitted to the neonatal unity of the Maputo Central Hospital in 2023. This is a descriptive, quantitative research. The study population was neonatal deaths that occurred in the neonatal unity of the Maputo Central Hospital in 2023, which is equivalent to 614 deaths and the sample was 232 deaths. For data collection, a form was prepared based on the variables of interest and the descriptive method was used for data analysis. The results showed that most of the newborns were female, 52.16% (121); The predominant age of newborns at the time of admission to the neonatal ward ranged from 1 to 4 days of life 92.24% (214). There was a predominance of newborns weighing less than 2,500g with a cumulative percentage of 71.98% (167). The main reasons for admission of newborns were health problems related to prematurity, 56.47% (131), dyspnoea, 8.62% (20), asphyxia, with 4.74% (11) and congenital malformation, 4.31% (10). And it was concluded that the obstetric and sociodemographic characteristics of mothers and newborns that contributed to the death of newborns. And, the clinical causes that contributed to the death of newborns were low birth weight, prematurity, asphyxia, dyspnoea, depression at birth, congenital malformation, septic shock, gastroschisis, respiratory distress syndrome (RDS) among other causes.

Keywords: Clinical-epidemiological profile causes and neonatal

P18

Facteurs associés au décès du nouveau-né prématuré à l'unité de néonatologie du Centre Hospitalier Universitaire Pédiatrique de Bangui (CHUPB)

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Introduction: La prématurité constitue avec l'infection néonatale et l'asphyxie périnatale les principales causes de morbidité et mortalité néonatale. Le but de l'étude était d'analyser les facteurs associés au décès chez les prématurés au CHUPB.
Méthodologie: Il s'agissait d'une étude rétrospective menée de janvier à décembre 2021 à l'unité de néonatologie du CHUPB. Etaient inclus, tous les nouveau-nés prématurés hospitalisés dont les dossiers étaient exploitables. Les variables sociodémographiques des mères relatives au déroulement de la grossesse et de l'accouchement ainsi que celles relatives aux nouveau-nés ont été étudiées. Le test de chi2 et l'odds ratio ajusté ont été utilisés.
Résultats: Au total,1511 nouveau-nés ont été hospitalisés pendant la période. Il y avait468 prématurés (30,3%) parmi lesquels 165 ont été inclus. Les mères âgées de moins de 25 ans représentaient 77,6 % et 54 % étaient primipares. Aucune consultation prénatale n'était faite dans 29,7%. Le sex-ratio était de 0,89 et l'âge moyen, à l'admission, était de 0 jour [0h – 240h]. Ces nouveau-nés étaient transférés d'une maternité dans 82,4% et le transport médicalisé représentait 31%. Le décès était noté dans 44,8% des cas. Les facteurs associés au décès étaient la réanimation à la naissance(OR ajusté=2,87 [4,15-16,95]), le sexe masculin (OR ajusté=2,45 [1,77-6,40]), le poids inférieur à 1000g (OR ajusté=4,53 [5,78-69,16]) et la détresse respiratoire(OR ajusté=6,24[5,52-32,2]).
Conclusion: La fréquence élevée des naissances prématurées à Bangui et la mortalité associée nécessitent un renforcement de capacité des acteurs pour le suivi de la grossesse et de l'accouchement, ainsi qu'une bonne prise en charge du nouveau-né à la naissance.L'amélioration des conditions de vie des populations et du niveau d'éducation sanitaire demeure essentiel.

Mots clés: Nouveau-nés prématurés, unité de néonatologie, décès, Bangui.

P19

A quality improvement project on reducing admission hypothermia in a neonatal intensive care unit at a tertiary center, Addis Ababa; Ethiopia

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Background: Hypothermia is a global problem, especially in low- and middle-income countries. The World Health Organization has suggested 10 ways of keeping infants warm but practice can be inconsistent. This quality improvement project was undertaken in a resource limited teaching, tertiary hospital in Ethiopia. The rate of admission hypothermia to the neonatal intensive care unit (NICU) is 81%.
Methods: The aim of the QI project was to reduce NICU admission hypothermia by 50% from baseline in 32 weeks. This prospective study had a baseline, implementation and sustenance phase. Three PDSA cycles, including training on hypothermia and keeping warm chain, increasing delivery room temperature, and essential newborn care were undertaken. Results were ex

expressed in descriptive statistics.
Results: We were able to reduce NICU admission hypothermia (<36.50C) from 81% to 61%. During phase 1 and 2, the hypothermia rate was 68% and 86% respectively. In phase III , the percentage of admission hypothermia dropped as low as 26% but couldn't be maintained in the sustenance phase after the room heaters became nonfunctional. Moderate hypothermia (< 36.00C) decreased from 48% to 13% which is a 72.9% reduction from the baseline. The average delivery room temperature was 22.30C, 21.30C, 24.60C, and 22.80C in the phase I,II,III and sustenance phase respectively.
Conclusion: We were able to reduce NICU admission hypothermia by 25% and moderate hypothermia by 73% from baseline. We did not meet our target reduction in NICU admission hypothermia but observed that repeated training and on job mentorship changed attitudes and practices.

P20

Determinants and short-term outcomes of low birth weight among term neonates at Bamenda regional hospital, Cameroon

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Background: Low birth weight remains a major contributor of neonatal mortality in the world with most occurring in resource limited countries like. Cameroon. Problems associated with LBW adversely influence outcome.
Objective: This study aimed at determining predictors and the short term outcomes of term LBW neonates at the Bamenda Regional Hospital (BRH).
Method: This study was a 5-year retrospective case-control study that included all term neonates born at term with a birth weight less than 2500g as cases and those with birth weight greater than 2500g as controls. Data was collected, analyzed and statistical significance was set at $p<0.05$.
Results: Mean birth weight for cases was 2141 ± 222 grams and 3388 ± 362 grams for controls. Mean maternal age was26.5±5.6 years. The prevalence of term LBW was 0.7%. Predictors of LBW were: maternal age less than 20(p=0.000),<4 ANC (p=0.001), pre-eclampsia/eclampsia (p=0.000), primiparity (p=0.004) and multiple gestation (p=0.004). Outcome of our subjects were admissions (65.4%); for which 38.1% required resuscitation and 100.0% developed at least a complication. Frequent complications were neonatal infection (63.6%), hypoglycemia (32.7%), jaundice (27.3%), asphyxia (20.0%) and respiratory distress (16.4%). Mortality rate was 9.1% from birth asphyxia (60.0%), respiratory distress (60.0%), infection (40.0%) and jaundice (20.0%).
Conclusion: Predictors of term LBW were young maternal age, inadequate ANC, primiparity, pre-eclampsia/ eclampsia, and multiple gestation. Common complications were neonatal infection, hypoglycemia, neonatal jaundice, birth asphyxia and respiratory distress. Mortality was mainly due to birth asphyxia and respiratory distress.

Key words: Determinants, Term neonate, Low birth weight, outcome.

P21

Interventions to prevent hypothermia in newborns at Mzuzu Central Hospital, Malawi

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Introduction: Hypothermia immediately after birth remains a global issue and is considered to be a major contributing factor to serious conditions that leads to increased risk of mortality and morbidity. It is challenging to keep new-borns warm even when recommended routine thermal care guidelines are followed in the delivery room and theatre. New-born admission temperature is a crucial predictor of outcomes across all gestations.
This quality improvement project aims to explore various interventions which may be adopted to reduce newborn hypothermia including the implementation of evidenced-based interventions such as use of plastic wraps after birth, skin to skin contact and monitoring of room temperatures. Furthermore, educated and trained health professionals, adherence to protocols and improvements in environmental conditions are appraised as key factors in alleviating risks.
Methods and Findings: We used a tally sheet to document number of neonates who were wrapped in plastic after birth and a checklist to observe practical care and environmental factors. The findings reveals that a multifaceted approach involving both enhanced care practices and environmental control can significantly reduce the incidence of hypothermia among neonates, leading to better outcomes.
Conclusion: In conclusion, good hypothermia prevention strategies were identified but further research is needed to optimize these strategies across diverse healthcare settings.

Key words: Hypothermia, Plastic wraps, Skin to skin contact, New-borns, Interventions

P22

Survie des prématurés de moins de 1000g au centre hospitalier universitaire de la mère et de l'enfant de Ndjamena

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Introduction: La prématurité est la principale cause de mortalité néonatale à travers le monde. Cette étude au CHU de N'Djamena visait à identifier les facteurs maternels et néonatals influençant la survie des nouveaunés de moins de 1000g, afin de déterminer les risques de décès dans ce contexte.
Méthodologie: Il s'agissait d'une étude prospective, descriptive et analytique, menée du 1er octobre 2022 au 30 septembre 2023, incluant 161 prématurés de moins de 1000 g hospitalisés en néonatologie. Les données ont été recueillies via dossiers médicaux et questionnaires maternels, puis analysées avec le logiciel SPSS version 23.
Résultats: les prématurés de <1000g représentaient 22,2 % des hospitalisations des nouveau-nés. L'infection néonatale (62,1 %) et la détresse respiratoire (51,6 %) étaient fréquentes. Les décès étaient enregistrés dans 65% des cas. Les prématurés dont les mères avaient fait plus de 3 CPN survivaient plus (OR = 2,28 ; p = 0,029). La grande prématurité (prématurés de 28 SA à 32 SA + 6J par opposition aux extrêmes prématurés de 22 SA à 31SA +6J selon la classification de l'OMS) augmentait les chances de survie (OR = 2,56 ; p = 0,011). Les antécédents de décès néonatal (OR = 2,5 ; p < 0,01) et de prématurité étaient associés à une mortalité néonatale significative (p = 0,029).
Conclusion: La mortalité des prématurés de moins de 1000g reste élevée au CHU-ME de N'Djamena. Le suivi prénatal insuffisant et l'extrême prématurité étaient les principaux facteurs. Des efforts sont nécessaires pour renforcer prévention et prise en charge néonatale.

Mots clés: Grande prématuré, moins de 1000grammes, mortalité.

P23

Burden, risk factors, and outcome of neonatal respiratory distress in two semi-urban hospitals in the Southwest region, Cameroon

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Background: Neonatal respiratory distress remains a major cause of morbidity and mortality, it is of public health interest because of its frequency and severity in developing countries. The aim of this study was to determine the prevalence, risk factors, etiologies and short-term outcome of neonates diagnosed of respiratory distress.
Methods: A hospital-based cross-sectional study was carried out over a period of six months including all neonates admitted in the Buea and Limbe Regional Hospitals, Cameroon. Questionnaires including demographic data, antenatal history, perinatal history, etiologies and outcome were used to collect data. Categorical variables were presented as frequencies and proportions while continuous variables as mean and standard deviation. Associations were derived by multivariate analysis from logistic regression. Statistical significance was set at a p-value < 0.05 at 95% confidence interval.
Results: The prevalence of neonatal respiratory distress was 47.2%. Meconium aspiration syndrome, sepsis and perinatal asphyxia were the most frequent etiologies. Meconium aspiration syndrome was significantly associated with neonatal respiratory distress (OR 7.30 IC [2.28-19.02]). Maternal occupation and rupture of membranes <18 hours decreased the risk of neonatal respiratory distress. Mortality associated with respiratory distress was 7.8%.
Conclusion: The prevalence of neonatal respiratory distress remains high in our setting. Meconium aspiration syndrome was the most common risk factor to respiratory distress. Proper management during labor and delivery would be beneficial to neonates.

Keywords; Neonatal, Respiratory distress, Risk factors, Etiology.

P24

Use of a novel bCPAP System at Muhimbili National Hospital: A review of 6 years of experience

Introduction: WHO strongly recommended initiation of CPAP for neonates with signs of RDS in November of 2022. Additional WHO recommendations included prophylactic application of CPAP in very preterm neonates and preferential use of bCPAP. Six years ago, Muhimbili National Hospital was one of the first hospitals in the world to implement the novel Vayu bCPAP device. Over that time these bCPAP devices have become the primary mode of non-invasive respiratory support and have treated many thousands of neonates. In this study we evaluated the experience over the past 6 years. Methodology: A survey instrument that rigorously evaluates uptake, perceptions, facilitators, barriers, and outcomes will be deployed in June at both campuses of Muhimbili National Hospital (Upanga and Mloganzila) and reported on thereafter. Results: The novel bCPAP devices were successfully implemented with training via a train-the-trainers model. A survey is in the process of being disseminated and the results will be presented. Conclusion: The novel bCPAP device was successfully integrated and has been sustained in the newborn unit if Muhimbili National Hospital. The survey conclusion will be reported. Further study is needed to better identify optimal opportunities to bring bCPAP to every newborn in respiratory distress worldwide. Keywords; bubble CPAP, Respiratory Distress Syndrome, Humanitarian Crises

P25

Mise au sein précoce (MSP) du nouveau-né par le personnel soignant en salle de naissance de l'hôpital Général Port-Bouët à Abidjan Côte d'Ivoire

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Introduction: Les avantages de la mise au sein précoce du nouveau-né sont attribuables à ceux du colostrum et à la prévention de l'hémorragie dans le post-partum immédiat. Cette étude visait à déterminer les facteurs entravant sa réalisation à l'hôpital général de Port-Bouët.
Méthode: Cette étude exploratrice, à visée descriptive, s'est déroulée du 11 novembre au 11 décembre 2023. Seize Sages-femmes en salle d'accouchement ont été interviewées et observées.
Résultats: Les ¾ du personnel soignant (75 %)avaient un âge de 26 à 45 ans et une ancienneté inférieure à cinq ans dans le service de 68,5 %.Une formation relative à la mise au sein précoce avait été reçue par 75 % du personnel soignant dont 50% à l'école de formation de base.
Quoique les connaissances de base sur la MSP soient acquises (définition, avantages), des insuffisances ont été remarquées, quant à sa mise en pratique réelle. Ainsi, seulement 39,5 % des activités de la MSP étaient réalisés par l'ensemble du personnel. Les principales entraves soulevées étaient l'insuffisance du personnel, l'inexistence de guide, la charge de travail élevée et l'environnement inapproprié.
Conclusion: La MSP demeure peu pratiquée en salle de naissance de l'hôpital général de Port-Bouët ; ceci, eu égards à de nombreux défis qu'il convient de prendre en compte.

Mots Clés: Mise au sein précoce, Allaitement, Hôpital général

P26

Profil sociodémographique, clinique et évolutif des nouveau-nés ictériques au CHU de la Mère et de l'Enfant.

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Introduction: l'ictère néonatal est une pathologie fréquente en période néonatale, pouvant entraîner des complications graves si la prise en charge est retardée. Cette étude vise à décrire les caractéristiques sociodémographiques, cliniques et l'évolution des nouveau-nés atteints d'ictère hospitalisés au CHU de la Mère et de l'Enfant.
Méthodologie: Une étude descriptive transversale a été menée du 1er janvier au 30 Avril 2025 au service de néonatologie du CHU-ME. Ont été inclus tous les nouveau-nés hospitalisés avec un ictère clinique. .
Les variables étudiées étaient les variables sociodémographiques (sexe, âge, poids de naissance, âge gestationnel, lieu d'accouchement) ;les variables cliniques (type d'ictère, signes cliniques associés, antécédents maternels et complications obstétricales) ;les variables thérapeutiques (traitements reçus) ;les variables évolutives (amélioration, transfert ou décès). Les données ont été extraites des dossiers à l'aide d'une fiche préétablie et analysées sous Excel et SPSS.
Résultats: Sur 670 nouveau-nés hospitalisés, 66 présentaient un ictère (9,8 %). La majorité était de sexe masculin (57,6 %) et âgée de 0 à 7 jours (76,6 %). Le poids de naissance était <2500g dans 43,9 % des cas. L'accouchement s'était déroulé à domicile chez 24,2 % des mères. Les principaux signes associés à l'ictère étaient la fièvre (40,9 %), l'anorexie (39,4 %), et l'hypotonie (31,8 %). Le traitement reposait principalement sur la photothérapie (92,4 %). L'évolution était favorable dans 81,8 %, mais 10,6 % des cas étaient décédés.
Conclusion: L'ictère reste fréquent au CHU-ME, touchant particulièrement les nouveau-nés masculins et à

faible poids. Une meilleure surveillance à la naissance et un accès précoce aux soins pourraient améliorer le pronostic.

Mots-clés: Ictère néonatal, nouveau-né, photothérapie, CHU-ME, N'Djamena.

P27
Impact de l'infection néonatale sur la morbidité et mortalité au CHU-ME de Ndjamena

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Introduction: Les infections néonatales, fréquentes et graves, causent une morbidité et mortalité élevées au CHU de N'Djaména, posant un défi majeur de prise en charge. Cette étude visait à évaluer l'impact des infections néonatales sur la morbidité et lamortalité.
Méthodologie: Il s'agit d'une étuderétrospective descriptive et analytique sur 16 mois, portant sur les infections néonatales au CHU-ME. Le diagnostic des infections reposait sur des signes cliniques (fièvre, hypothermie, détresse respiratoire, troubles de la succion, léthargie) associés à des anomalies biologiques (CRP élevée, leucocytes, plaquettes) et hémocultures positives. Données issues de dossiers cliniques, incluant paramètres démographiques, cliniques, biologiques, microbiologiques, facteurs de risque, mortalité et durée d'hospitalisation. Analyse via Excel et SPSS.
Résultats: Sur 2400 nouveau-nés, 720 (30%) avaient présenté une infection. Une notion d'infection pendant la grossesse était retrouvée chez 85,42% des mères..Les nouveau-nés inclus dans l'étude étaient âgés de 0 à 7 jours.L'âge gestationnel était de moins de 28 SA dans 78,33 % des cas. Les accouchementsà domicile sans assistance représentaient 23,3%.
L'antibiotique majoritairement utilisé était la combinaison Ampicilline + Gentamicine, soit 70,97% suivi de Cefotaxime+gentamicine dans 25,2%. Les nouveau-nés décédés représentaient 16,67% des cas. Les décès étaitassociés significativement à un âge à l'admission de moins de 7 jours (P= 0, 0001), àun âge gestationnel de moins de 28 semaines d'aménorrhée (P= 0,003) et à un l'accouchement à domicile (P= 0,0001).
Conclusion: Les infections néonatales ont un impact significatif sur la morbidité et la mortalité au CHUME avec quelques facteurs associés identifiés dans l'étude.

Mots clés: Infection néonatale, mortalité, Ndjamena