

admitted to seven neonatal units in Nigeria and Kenya and diagnosed with birth asphyxia, respiratory disorders, abdominal conditions and suspected sepsis. Data was captured in REDCap\*\* and the frequency of criteria used for each diagnosis in each NNU was analysed using SPSS.

**Results** 2852 neonates were included. Mean gestational age was 36 weeks (SD 4.27) and birthweight 2.42 kg (SD 0.94). 473 (16.6%) newborns died during admission and mortality was highest amongst very-low birth weight (<1500 g) infants (46.1%) and very preterm (<32 weeks' gestation) infants (41.3%). 1230 (43.1%) newborns were diagnosed with suspected sepsis, 874 (30.6%) with respiratory conditions, 587 (20.6%) with birth asphyxia and 71 (2.5%) with abdominal conditions. For all diagnoses, the most frequently used diagnostic criteria were clinical, whilst laboratory and radiological criteria were rarely used. In addition, there was marked variation between the NNUs, including within each country, in the use of many of the criteria for each diagnosis. Using suspected neonatal sepsis as an example, temperature instability was the most used clinical criteria (1036/1230 (84.2%) infants; varied from 72% to 93% in each NNU) whereas hypotension was rarely used (1.8% infants; 0% to 9%). For laboratory criteria, abnormal white cell count was the most commonly used (22.7% infants; 8% to 37%) but all were used infrequently: raised C-reactive (9.4% infants; 0% to 27%) and presence of a pathogen in blood (16.3% infants; 1% to 74%) and cerebrospinal fluid (1.9% infants; 0% to 13%).

**Conclusions** Clinicians adopted a syndromic approach when making diagnoses but with marked variation in use of clinical criteria between NNUs. Laboratory and radiology technologies were mostly either unavailable or unaffordable. As neonatal conditions often have non-specific and overlapping clinical features, this has implications for management such as overuse of broad-spectrum antibiotics for suspected sepsis. There is an urgent need to facilitate standardisation of diagnostic pathways based on World Health Organisation and national diagnostic guidelines to optimise clinical care. In addition, investment in affordable, sustainable diagnostics suitable for low-resource settings, including point-of-care tests, is a priority. Standardisation of diagnostic pathways would also facilitate comparing disease burdens and outcomes between NNUs as a basis for research to improve neonatal outcomes.

\* <https://www.project-redcap.org/>

\*\* <https://www.lstmed.ac.uk/nnu>

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### UNUSUAL CAUSE OF NEONATAL INTUSSUSCEPTION: THE CLUE WAS POPPING OUT OF THE EARS!

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**Background** Infantile myofibromatosis (IM) is a rare benign tumour of infancy. Most cases of infantile myofibromatosis are believed to occur spontaneously and without a known family history of the disorder.

**Objectives** The objective of this case report is to highlight this rare disorder and its unusual presentation in neonatal period.

**Methods** A female term baby was born through an uneventful delivery with birth weight of 3.6 kg and did not need any neonatal resuscitation. Antenatal history was unremarkable except for high maternal BMI. There was no history of consanguinity. There was history of sarcoidosis in Dad.

Baby was noted to have bilious vomiting at 12 hours of life. On examination the observations were stable. There was no dysmorphism, but a fleshy pink peanut sized mass was noted arising from the left auditory canal completely occluding the external auditory meatus and a small soft mass on the pinna. Her abdomen was soft with no obvious distension; bowel sounds were hyperactive. The anal opening was patent. There was fresh blood in the nappy. There was minimal clear nasogastric aspirate and there were flecks of green meconium in the aspirate on gastric washout with saline. The abdominal x ray showed prominent gaseous bowel loops with paucity of gas in the rectum. Rest of the general and systemic examination was unremarkable. She was kept nil by mouth with nasogastric tube on free drainage and was commenced on intravenous antibiotics after screening for sepsis. The baby was transferred to the tertiary center for urgent surgical evaluation and management in view of the bilious vomiting.

**Results** At the tertiary center, contrast studies confirmed Malrotation. Laparotomy showed malrotation with ileocolic intussusception. Multiple nodules found in gut lining and masses noted adjacent to the ovaries bilaterally. Further imaging – whole body MRI/CT chest and abdomen/pelvis/Echocardiogram showed multiple lesions involving various organs. Histopathology and immunohistochemistry confirmed myofibromatosis. Currently this child is being treated with chemotherapy.

**Conclusions** Our case presented with unusual findings which had a common link. Infantile myofibromas can present with solitary or multiple nodules (firm flesh coloured to pink) and are often present at birth. At first the isolated mass in the ear canal and the bilious vomiting were thought to be separate problems. However as this case was subsequently investigated we learnt that the visceral myofibromas were responsible for the intussusception.

This form of infantile myofibromatosis can cause severe, life-threatening complications depending upon the location of the lesion and the specific organs involved. MRI and ultrasounds are useful adjuncts to gain more information about the extent of these tumours however, histopathology remains the gold standard for the diagnosis of this condition. In the majority of cases, which lack visceral involvement, prognosis is excellent and spontaneous regression is often observed. On the other hand, the presence of visceral lesions is associated with a significantly poor outcomes in the absence of therapy.

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### THE DEVELOPMENT OF A PAEDIATRIC EARLY WARNING SCORE SYSTEM (PEWS) FOR MYANMAR; THE IMPACT ON CLINICAL OBSERVATIONS AND ESCALATION OF CARE

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**Background** The identification of the most unwell children in hospital, and the escalation of their care, is globally challenging, especially in resource-limited settings.

**Objectives** A Myanmar/UK working group (WG) has developed Paediatric/Neonatal Early Warning Scores and an escalation policy designed for children of all ages in Myanmar hospitals. We present here early data on the impact of a pilot project, to be followed in March 2021 by a full 4-month dataset following implementation in different settings.

**Methods** Review and design phase