Methods This was a longitudinal hospital based study of 338 children aged 1 month to 18 years admitted to the Jos University Teaching Hospital, Plateau state via the Emergency Paediatric Unit (EPU), from August to November 2018. All children were screened for AKI using the 'Paediatric Risk, Injury, Failure, Loss, End stage renal disease' (pRIFLE) diagnosis criteria after obtaining the estimated Creatinine Clearance (eCCL) and urine output. The participants were assessed daily on admission until discharge or death. Normative values for eCCL reference were used for all children.

Data were stored on Microsoft excel spreadsheet then transported to Statistical Package for Social Sciences (SPSS) for analysis. Mean and frequencies were computed and association of risk factors for AKI occurrence and output were calculated using chi-square and odds ratio.

Significant risk factors were further subjected multiple logistic regressions. P-value of less than 0.5 was significant.

Results The prevalence of AKI from the study was 21.30%. The study diagnosed more participants (50%) in the least severe 'R' stage.

Independent risk factors for the development of AKI identified include, sepsis, (p-value <0.001, OR 5.56, CI 2.57–12.05), primary kidney disease (Nephrotic syndrome and Acute Glomerulonephritis) (p-value <0.001, OR 15.04, CI 5.37–42.13), heart failure (p-value <0.001, OR 8.14, CI 3.38–19.59), and chronic kidney disease (p-value 0.021, OR 14.38, CI 1.49–138.69).

The mortality rate from AKI was 20.83%. Among discharges, 82.46% of the discharged recovered fully from AKI while 17.54% had residual kidney injury.

Sepsis (p-value <0.001, OR 8.36, CI 2.38–29.46) and severe stage of AKI (p-value <0.001, OR 14.93, CI 3.64–76.92) were the most important risk factors for poor outcome in children with AKI.

Conclusions From this study therefore it can be said that AKI is a disease that is commonly associated with hospital admission (21.3%), though it is preventable and treatable when recognised early due to the high recovery rate with earlier stages of the disease. More worrisome is the high mortality rate 20.83% which contributed to 78.95% of total hospital mortality in the admitted children. Screening for risk factors early at the point of admission will prevent development of the disease and progression to severe stage.

Here we report our single-centre District General Hospital experience of managing HIE over an 8-year period with two year follow up data.

Objectives To examine the 2 year developmental outcomes for our cohort of patients with HIE, since cooling was introduced at our centre in 2009.

Methods A retrospective review of patients with a coded diagnosis of HIE managed at St. Helier Hospital was performed via electronic healthcare records. All patients treated between 1/10/2009 and 1/10/2017 were included for analysis. Non electronic records were then used to obtain detailed information about each patient at the time of HIE diagnosis and follow up at 2 years of age.

Results After manual exclusion of non-HIE cases (n=12), 55 patients with a coded diagnosis of HIE were identified and included in the analysis. The mean gestational age was 39.3 weeks (range 32–42), and most were born at our centre (76%). At the time of review, 47 (85%) were alive and 8 (16%) had died. 28 patients (51%) received cooling, 25 of which were cooled at our centre. In this latter group, 24 (96%) met both TOBY criteria A and B. The mean pH of cooled babies was 7.001 (range 6.53–7.38), and the median Apgar Score at 1 minute was 2 (range 0–9), at 5 minutes was 4 (range 0–10) and 10 minute was 6 (range 0–10). Of the 18 patients who were cooled in our trust with local follow-up data available, 8 (44%) had normal motor, speech and language development at 2 years, and 10 (55%) had abnormal development in one or both domains which reflects the original TOBY data (where survival without a neurologic abnormality was 44% at 18 months in the cooled group). Of patients who did not meet criteria, were not cooled and had local follow up (n=19), 6 (31%) had abnormal developmental outcomes at 2 years with 3 (15.7%) of children demonstrating both motor and speech delay.

Conclusions Looking back at our decade of experience since the introduction of cooling, our analysis shows that the outcomes from the original TOBY trial translate well to a DGH setting. Although we were compliant with TOBY criteria and had similar outcomes for our cooled babies, we found that over 8 years, 33% of patients who were appropriately not cooled had abnormal developmental outcomes at 2 years. Is there a case for cooling babies below the threshold set by the TOBY trial?

British Association of Perinatal Medicine and Neonatal Society

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A DGH EXPERIENCE OF COOLING IN HYPOXIC ISCHEMIC ENCEPHALOPATHY

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Background Hypoxic ischaemic encephalopathy (HIE) is a serious complication arising from impaired cerebral oxygenation in the perinatal period, which confers a high rate of mortality, morbidity and developmental delay. The Total Body Cooling (TOBY) Trial showed that moderate-induced hypothermia improves survival and neurological outcomes, and provides national criteria for patient cooling. We have been managing babies with therapeutic hypothermia in our unit since 2009.

Association of Paediatric Emergency Medicine

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UNDERSTANDING RESPONSES OF PAEDIATRIC EMERGENCY DEPARTMENTS TO THE FIRST WAVE OF THE COVID-19 PANDEMIC – A PAN-EUROPEAN PERSPECTIVE

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