British Association of Perinatal Medicine and Neonatal Society

1390  DOCUMENTATION AROUND THE COMMENCEMENT OF THERAPEUTIC HYPOThERMIA FOR HYPOXIC-ISCHAEMIC ENCEPHALOPATHY (HIE). A QUALITY IMPROVEMENT PROJECT

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Background Healthcare Safety Investigation Branch (HSIB) have begun to investigate infants who have been ‘cooled’ for HIE in England. This triggered an audit of iCLIP electronic records for infants cooled Jan 2020 to Jan 2021 at St Georges University Hospital (SGH), London. Perinatal HIE has a significant risk of long term neurological and developmental sequelae. 1–3.5/1000 births in the UK have perinatal asphyxia severe enough to cause neonatal HIE. SGH is a level 3 unit receiving infants from level 1 and 2 units in the network. Infants must meet cooling criteria A, B and C. Criteria A is pH <7.0 or BE >-16, Apgar <5 at 10 mins, ongoing resuscitation at 10 minutes. Criteria B signs of moderate to severe encephalopathy including altered consciousness plus hypotonia, abnormal reflexes, weak or absent suck or clinical seizures. Criteria C based on aEEG for a minimum of 30 minutes showing intermittent or continuous seizure activity, abnormal or suppressed activity. Without intervention, risk of death or severe disabilities in survivors of moderate to severe HIE is 25% and 75% respectively. With therapeutic hypothermia, mortality and disability has reduced but it remains an area of interest for quality improvement and litigation.

Objectives An audit to identify gaps in the documentation around commencement of therapeutic hypothermia in infants with HIE. This will enable the team to highlight areas that need to be developed to allow more robust documentation in the future; improving patient safety.

Methods Infants identified from Badger system from Jan 2020 to Jan 2021. iCLIP entries were examined for; maternal history, delivery details including CTG, resuscitation, cord gases, first gas, neurological examination, Cerebral Function Monitoring (CFM), time of cooling, seizures, medication and reasons for re-warming if occurred.

Results 18 infants were cooled in 12 months. 33% were transferred from level 1 and 2 units. One was cooled out of cooling criteria as had borderline blood gases but went on to develop seizures. Two infants were <36 weeks, three had cooling commenced more than 6 hours of age from birth due to changing neurology, one rewarmed early due to diagnosis of chromosome disorder. One patient died after re-warming. 27% had no maternal history documented, cord pH not mentioned in 27% of cases, 22% had no resuscitation note, 27% did not have the age in hours documented at commencement. 11% of patients had no neurological examination documented prior to cooling. 5% did not have CFM results documented.

Conclusions Audit identified good documentation around infants who were cooled outside of cooling criteria. Some deficits were identified in the documentation around the maternal history, resuscitation, neurological examination at the time of commencement of therapeutic hypothermia. These results alongside the HSIB investigation have prompted an update of the HIE Guideline, triggered departmental teaching and production of an electronic pro forma for iCLIP. We aim to start a pro forma to improve and standardise documentation around commencement, during and after cooling.

British Society of Paediatric Gastroenterology, Hepatology and Nutrition

1391  THE MAGNITUDE OF PICKY EATING BEHAVIOUR AND ITS IMPACT ON CHILD HEALTH IN PRESCHOOL CHILDREN IN FOUR PRIMARY HEALTH CARE CENTRES IN KHARTOUM CITY 2020

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**Background**

Picky eating is usually classified as part of a spectrum of feeding difficulties. It is characterized by an unwillingness to eat familiar foods or to try new foods, as well as strong food preferences. The consequences may include poor dietary variety during early childhood. This, in turn, can lead to concerns about the nutrient composition of the diet and thus possible adverse health-related outcomes.

Picky-eating habits in preschool children may detriment additionally development quality, physical activity level. Reported prevalence rates are mainly from developed countries and vary widely because of the diversity of assessment methods and definitions. Mothers’ intervention strategies are presumably related to their perceptions of picky eating.

**Objectives**

This study aims to determine the frequency of occurrence of picky eating behaviour among preschool children and its impact on growth and health, identifying the effects of the child’s picky eating on the family and to describe the attitude adopted by the family to manage the issue of picky eating behaviour and the factors associated with the picky eating behaviour among study population.

**Methods**

This study is a descriptive cross-sectional facility-based study in selected four primary health care centres to determine the frequency of occurrence of picky eating behaviour among preschool children and its impact on growth and health status at Khartoum state 2020. Ethical consent obtained. Data was collected by interview questionnaire and anthropometric measurement taken at time of the interview. Data entered, cleaned, and analysed using SPSS version 21.0.

**Results**

This study involved 222 participants. Definition used to diagnose picky eating among participant was combination of poor appetite, food neophobia (always) and food rejection (always). About half of children reported to have poor appetite (n=109, 49.1%) and more than half of children reported to have food neophobia (n=140, 63.1%) and food rejection (n=140, 63.1%) sometimes. Children who met the above definition were about twenty one children (9%), their mean weight was lower compared to non-PE group (p= 0.001). BMIs in majority of PE were underweight (80.9%) compared to non-PE group were 59% of them were having normal BMI. Also, higher rate of constipation (P value 0.00), iron deficiency anaemia (p value 0.00) and increased risk of acute illnesses (P value 0.039) amongst the picky eater group. Being female, first order in family, maternal age within 20s and presence of similar cases in the family had strong association with picky eating behaviour. While gestational age and family income were not different among both PE and non-PE groups.

**Conclusions**

Picky eating is quite common behaviour in children with different age groups and has its consequences on both children and their families. Further studies need to be done in developing countries to explore different aspects of picky eating like micronutrient deficiencies and development. Also, as picky eating behaviour represents a prevalent problem with impact on children. Hence, it necessitates recommendation and education of paediatrician and general practitioner to have the knowledge to detect early during acute or routine clinic visit for other health issue and to provide the appropriate management for its complication.

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**1392 USE OF NON INVASIVE VENTILATION (NIV) DELIVERED THROUGH VENTILATOR FOR IMPROVING EXTUBATION SUCCESS RATES IN PRETERM INFANTS**

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**Background**

Early extubation to non-invasive ventilation (NIV) has been conclusively related to reduced Bronchopulmonary dysplasia (BPD) rates in preterm infants. Reported extubation failure rates vary from 10%-70%. 2017 Cochrane review concluded that Non-Invasive positive pressure ventilation (NIPPV) improves extubation success rates compared to continuous positive airway pressure (CPAP)/high flow nasal cannula (HFNC). In principle, NIV delivered through an auto-flow device with a higher maximum flow of 30 l/min (ventilator) would provide more consistent pressures compared to a bias flow device (IFD/HFNC-10 l/min).

**Objectives**

To compare rates of extubation failures when using NIV delivered through ventilator as a modality compared to IFD/HFNC.

**Methods**

At our center, no standard practice existed regarding extubation and usage of CPAP/Biphase positive airway pressure (Bi-PAP) delivered through Infant Flow driver(IFD) or HFNC. Extubation failure was defined as re-intubation <72 hours due to presumed respiratory cause excluding NEC/Sepsis, drug overdose. All infants <30 weeks from January 2019 extubated to CPAP/NIPPV delivered through Draeger ventilator at pre-specified settings were compared to a demographically matched retrospective cohort from (2017–2018) who were extubated to NIV delivered through IFD/HFNC(pre-intervention epoch).

**Results**

Among the preterm infants extubated to CPAP/NIPPV delivered through Draeger ventilator, 56% failed extubation, which was a reduction compared to 72% in the pre-intervention epoch (although statistically not significant, (p>0.05). However, early extubation (14 days of life) failure rates were significantly less in the study group 28% compared to 46% in the pre-intervention EPOCH group (p<0.05). No significant difference was noted in incidence rates of BPD.

**Conclusions**

The use of ventilator-driven NIV leads to reduced extubation failures, more significantly in the first 14 days of life in the extreme preterm (<28 weeks) cohort. Hence early extubation among the preterm cohort could be more effectively achieved with the use of NIPPV or NIV delivered through the ventilator. This could also lead to higher success rates for procedures like LISA.