person-years, White British obese had 1,555 consultations per 1000 person-years; prescriptions: Pakistani obese had 4,421 prescriptions per 1000 person-years, White British obese had 2,056 prescriptions per 1000 person-years).

Conclusions Obese children in both groups had on average more primary care consultations and a greater number of prescriptions. This association was moderated by ethnicity with Pakistani children having significantly higher rates. These findings underline the importance of reducing childhood obesity and highlight the need for further research to understand the differences in use of primary care services between different ethnic communities.

British Paediatric Neurology Association

1497

ENDOVASCULAR TREATMENT OF CEREBRAL VENOUS SINUS THROMBOSIS IN CHILDREN: A SCOPING REVIEW

Alex Fung, George Hudson, Shoomena Anil. *University of Cambridge*

10.1136/archdischild-2021-rcpch.684

Background Cerebral venous sinus thrombosis (CVST) is a cerebrovascular disease that typically affects children and young children. Its clinical presentation is highly variable and non-specific, making diagnosis extremely difficult. Systemic anticoagulation is the first-line treatment, with the aim of minimising thrombus extension and achieving recanalisation. However, many patients deteriorate despite maximal anticoagulation. The clinical heterogeneity, low incidence and paucity of clinical trials on CVST have created significant uncertainty and variability in how patients not responding to anticoagulation are managed. Endovascular treatment is an option in these patients. However, there is particularly limited evidence for its use in children. We present the first scoping review of endovascular interventions for CVST in children.

Objectives To collate, describe and assess the literature on endovascular interventions available for CVST in children, with the aim of guiding future research and the development of clinical guidelines.

Methods A systematic scoping review on both primary and secondary research on endovascular interventions for CVST specifically in children (aged 1 month - 16 years) was conducted according to PRISMA-ScR guidelines. Studies were identified using the databases PubMed, Embase, Cochrane Library and OpenGrey. 226 studies were identified using our search strategy on 16th October 2020. Following application of eligibility criteria, 48 studies were included for analysis.

Results Case reports (n=15) and case series (n=15) comprised the majority of the studies. 12 narrative reviews and 1 systematic review were identified. Only 1 non-randomised interventional study and 4 observational studies were identified. No randomised controlled studies were identified. 54 unique, individual children with CVST with details of their diagnosis and endovascular intervention reported were identified across 32 studies. 83% of patients had at least one risk factor for CVST, with inflammatory bowel disease (15%) and dehydration (15%) being the most common. 74% of cases had a bland (i.e. non-haemorrhagic) infarct identified on diagnostic imaging, whilst 26% had a haemorrhagic infarct. The majority (65%) of patients received systemic anticoagulation with heparin before endovascular intervention. 11% did not receive any

kind of systemic anticoagulation prior to endovascular intervention, mostly due to rapid, progressive neurological deterioration with anticoagulation started afterwards. The most common indications for endovascular treatment were declining GCS (46%) and worsening/non-improving symptoms despite anticoagulation (35%). Local catheter-guided pharmacological thrombolysis with urokinase or recombinant tissue plasminogen activator was the most commonly used intervention (83%). A combination of endovascular interventions was used in 35% of patients. Complete symptom resolution and complete recanalisation was achieved in 63% and 44% of patients, respectively. 9% of patients died despite endovascular treatment.

Conclusions The literature reports the use of endovascular interventions for children with progressively worsening symptoms or declining neurological status despite anticoagulation and children in whom anticoagulation is contraindicated. However, there is no consensus on how patients are deemed to be unresponsive to anticoagulation and suitable for endovascular treatment. Cohort studies and randomised controlled trials are needed to robustly assess the efficacy and safety of these interventions in children.

Quality Improvement and Patient Safety

1499

TO MEASURE THE NOISE INTENSITY IN OUR NEONATAL UNIT AND RAISE THE AWARENESS OF STAFF ABOUT ITS IMPACT ON PRETERM GROWTH AND DEVELOPMENT

¹Jatinder Khupal, ²Patricia Coimbra, ²Donna Price, ²Gopa Sarkar. ¹NHS-Thames valley (Buckinghamshire); ²NHS-Buckinghamshire

10.1136/archdischild-2021-rcpch.685

Background Preterm babies who were shielded by the intrauterine environment, when suddenly exposed to higher decibels of loudness can have a serious impact on growth and development which can lead to hearing loss and altered behaviour and feeding pattern. The awareness of neonatal unit staff is of utmost importance to bring about the change in preterm neonatal care.

Objectives This study investigates the overall sound general noise present in the Neonatal Unit in Stoke Mandeville Hospital and evaluates the perception and knowledge of the staff regarding noise exposure to the neonates.

Methods The noise was measured using the highly recommended and rated software called Decibel Meter for a period of twelve hours during the day and night in different areas of the three nurseries in the unit. Loudness was measured in decibels and the results were analyzed using Excel software. Confounding factors like battery value of device, person measuring the value have been considered.

To measure the awareness of staff members about this topic, questionnaires with multiple questions and open answers were handed out to all members present on the unit and again the results were analyzed using Excel software.

Results Our analysis showed that the mean noise detected in all areas was between 49–56dB. The intensive care and high dependency nursery being the loudest, ranging from 54dB during the day to 56dB overnight, particularly loud near the nursing desk with a mean dB of 55. Specific

moments like nursing handovers and ward rounds were noted to be the loudest periods, with a range of 65 to 70 dB.

The questionnaires reflect that although staff members have some knowledge on noise levels and their impact on the newborn, education on the effect of noise in ambience around preterm can be helpful.

On the subject of the permissible loudness, 53.3% of staff answered 55dB, most of the participants were unsure. Regarding the level of noise at which babies start experiencing pain, 60% answered more than 90dB, and 13.3% answered more than 200dB. Handovers and conversations in the unit were noted to have a physiological and psychological effect on the neonates as evidenced by previous studies and suggestions were made to reduce the noise by altering alarm volumes, adding visual aids, and educating staff and parents.

Conclusions We conclude that the loudness of noise has adverse effects on the quality of care of newborns. Guidelines to regulate the noise intensity should be followed to ensure the best of care to growing preterms. Moving forward, our intended actions would be: to educate staff and parents on this topic, obtain a certified device to monitor the noise level, alter the environmental factors influencing the increase in noise and use visual aids to help reduce the noise in our unit thus protecting the newborn babies from harmful noise exposure.

Paediatric Special Interest Group: British Society of Haematology

1500

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International Child Health Group

1502

ADMISSIONS TO A LOW-RESOURCE NEONATAL UNIT IN MALAWI USING A MOBILE APP AND DASHBOARD: A ONE YEAR DIGITAL PERINATAL OUTCOME AUDIT

¹Caroline Crehan, ²Yamikani Mgusha, ³Deliwe Bernadette Nkhoma, ²Msandeni Chiume-Kayuni, ²Beatrice Gundo, ⁴Rodwell Gundo, ⁵Farah Shair, ²Precious Dinga, ¹Monica Lakhampaul, ⁶Fabiana Lorencatto, ¹Michelle Heys. ¹Great Ormond Street Institute of Child Health, Population Policy and Practice department, University College London, UK; ²Paediatric Department, Kamuzu Central Hospital, Lilongwe, Malawi; ³Parent and Child Health Initiative, Lilongwe, Malawi; ⁴Kamuzu College of Nursing, University of Malawi, Lilongwe; ⁵Royal College of Science, Imperial College London, UK; ⁶Centre for Behaviour Change, University College London, UK

10.1136/archdischild-2021-rcpch.687

Background Neonatal deaths still account for a large proportion of child deaths. Understanding the extent and characteristics of neonatal deaths in Sub-Saharan Africa is a significant challenge with poor quality, inaccurate record-keeping in these settings. The process of audit is considered the foundation of quality improvement. With mHealth gaining prominence in many hospital departments, the NeoTree data collection and