Visitor (HV) but have felt it necessary to attend the PED acutely, this has especially been an issue due to COVID with reduced access to Primary Care services. In Autumn 2020 a new pathway was introduced for PED clinicians to refer directly to a specific 'Infant Feeding Clinic' (IFC). This is run within the hospital by a Paediatric Nurse and HV. There are clear referral criteria and infants who have been assessed in PED are offered a virtual/face to face consultation.

Objectives To assess whether infants presenting to PED with feeding problems are being appropriately referred to IFC. To assess the presentation and management of infant feeding problems in the local paediatric population.

Methods Retrospective case-note audit on infants <6 months of age presenting with feeding difficulties over a 1 month period in Oct 2020 to the PED. Exclusions were: 1 cleft palate and 1 complex gastro issues. Notes were reviewed to assess infants referred to IFC. Referral criteria are: <6 months of age at time of referral, born at >34 weeks gestation, no known co-morbidities, no red flags as per regional Infant feeding pathway, no evidence of faltering growth.

Results 30 infants were identified attending with a feeding problem to the PED. Mean age was 58 days (range 3–149 days old), 25 were formula fed, 3 breast fed & 2 breast fed with formula top ups. There were a range of presenting complaints – the majority being 'unsettled' or 'reflux'. 53% were first time parents, 33% had already seen their GP and 20% already attended an ED previously for the same problem. 58% of infants had no treatment, the remaining patients being prescribed hydrolysed formula (16%), gaviscon/carobel (23%) or Omeprazole (3%). Despite CMPA being 40% of patients' final PED diagnosis only 16% were prescribed a hydrolysed formula (table 1).

Once seen at the IFC the mean number of patient reviews was 2 visits. 78% had further treatment or onward referrals (eg allergy clinic), 11% had no further action and 11% were not brought to their appointment.

Conclusions Feeding problems are a common presentation to the PED. GOR & CMPA are the most common diagnoses. GOR appeared to be over-diagnosed in the PED but CMPA appeared to be comparable from PED to the IFC. 58% of infants received no medication in the PED. 60% of infants were referred on to the IFC for further care with 27%

discharged to their GP/HV (table 2). This audit shows that direct access from PED to an infant feeding clinic with clear referral criteria is beneficial for this group of patients and provides a valuable service.

British Association of Child and Adolescent Public Health

1496

BODY MASS INDEX AND USE AND COSTS OF PRIMARY CARE SERVICES AMONG WHITE BRITISH AND PAKISTANI CHILDREN: FINDINGS FROM THE BORN IN BRADFORD COHORT STUDY

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Background Obesity is associated with increased morbidity and people of South Asian ethnicity have been reported to be at a higher risk of developing cardio-metabolic conditions at a lower BMI threshold compared to White European populations. In recent decades, childhood obesity has become a global health emergency with higher prevalence leading to obesity associated metabolic conditions that were previously unusual in childhood. The prevalence of childhood obesity in the United Kingdom is among the highest in Europe with recent estimates indicating that South Asian children have higher rates compared to White British children. We examined the direct impact of obesity on the health of children from different ethnic backgrounds through assessment of their utilisation of primary healthcare services.

Objectives To determine the association of body mass index with primary healthcare use and costs during childhood and assess the impact of ethnicity on this association.

Methods Prospective longitudinal analysis of the UK White British and Pakistani children in the Born in Bradford cohort study with linked primary care records and height and weight measurements recorded at age 4–5. Incidence rates of outcomes of primary care consultations and prescriptions up to the age of 8 years were modelled using negative binomial regression. Associated direct healthcare costs were modelled using a generalized linear model with log-link function and gamma distribution. All models were adjusted for child sex, birthweight, gestational age, Mother's BMI, mother's age and deprivation and accounting for time at risk for each child.

Results There were a total of 3,469 White British and 4,346 Pakistani children. The proportion of obese children was 9.97% in White British and 10.17% in Pakistani children. Overall, the adjusted incidence rates of consultations and prescriptions were significantly higher in obese children when compared with normal weight children (consultations: incidence rate ratio (IRR) 1.19, 95% CI 1.11–1.27; prescriptions IRR 1.20, 95% CI 1.10–1.30). The adjusted direct healthcare costs were also significantly higher in obese children when compared with normal weight children (absolute difference: £19.9, 95% CI 8.2–31.7).

The adjusted incidence rates (IRs) of consultations and prescriptions were significantly higher in Pakistani children in all BMI categories compared to White British children (e.g., consultations: Pakistani obese had 2,323 consultations per 1000

Abstract 1493 Table 1 Final diagnosis

	PED Diagnosis	IFC Diagnosis
GOR	50%	20%
CMPA	40%	50%
IgE CMPA	4%	5%
Overfeeding	3%	0%
Well Child	3%	15%

Abstract 1493 Table 2 ED discharge

	ED Discharge
Referral to IFC	60%
Discharged to GP/HV	27%
Referral to Paediatric Rapid Access Clinic	7%
Already known to IFC	6%

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

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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

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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