Background This retrospective audit over 4 years reviewed all neonatal deaths in a large tertiary neonatal unit (University Hospitals of Leicester NHS Trust).

Objectives To review the potential for organ donation in patients that met the criteria for donation after death confirmed by neurological criteria (DBD) or circulatory death (DCD) in a large tertiary neonatal unit.

Methods The perinatal mortality review database and Badger-net were used to identify all early neonatal (END), late neonatal (LND) and infant deaths (ID) in the time period. Patients were identified that met the NHS Blood and Transplant (NHSBT) eligibility criteria for referral: >36 weeks corrected gestational age (CGA). Badger-net data was used to review cause and modality of death to determine potential for organ donation.

Results There were 125 END, LND and ID identified. 28 patients (22.4%) were identified as meeting the above-mentioned NHSBT criteria. Out of these 28 patients, 9 patients were potential organ donors (2 potential DBD following neurological death testing and 7 for potential DCD). One patient was referred for DCD, but this did not proceed as the patient continued to gasp for a prolonged period of time.

Conclusions The true potential for neonatal organ donation is not yet known, as identified in the NHSBT strategy. A greater understanding of this potential will allow for better resource management and influence treatment options, thus impacting the transplantation and organ donation process. This pilot audit shows that in a large tertiary neonatal unit, there were approximately 2 potential organ donors per year. A larger potential donor audit is required to establish national numbers and associated resources needed to offer organ donation routinely as part of end of life care for our patient population.

REFERENCE

Paediatric Special Interest Group: British Society of Haematology

1664 VITAMIN D DEFICIENCY AND SUPPLEMENTATION IN SICKLE CELL DISEASE

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Background Optimising bone health is of utmost importance in sickle cell disease (SCD) patients given the risk for bony involvement in SCD. These patients are at an increased risk of Vitamin D deficiency given the known higher prevalence of Vitamin D deficiency in those with dark skin from African/Afro-Caribbean/Asian/Middle Eastern backgrounds. In addition to this, Ireland is located in a northerly latitude and is at risk of suboptimal Vitamin D levels because of reduced sunlight exposure. Osteopenia and osteoporosis has been reported in up to 80% of SCD patients with other studies indicating a link between Vitamin D deficiency and chronic pain in SCD patients. We wanted to examine Vitamin D levels in our SCD population and establish what supplements our SCD patients were taking, comparing our findings to NICE and Sickle Cell Society and Public Health England (2019) guidelines.

Objectives To identify how many SCD patients in a tertiary unit are Vitamin D deficient and to identify the number of patients currently on a recommended dose of Vitamin D.

Methods Using our database of registered SCD patients, all Vitamin D level results within the past year were reviewed. Members of the haematology team concurrently asked each patient or parent/carer what Vitamin D supplementation, if any, they took regularly when they attended the hospital for review or over telephone clinic across a 4 month period. The patients’ charts were then reviewed on a daily basis after clinic and during/after hospital attendances.

Results 93.43% (313/335) of SCD patients had a vitamin D level taken in the preceding 12 months. The average vitamin D level was 52.94 nmol/L (median=51 nmol/L). 13% of
patients (41/313) had a vitamin D level <25nmol/L (deemed deficient as per NICE guidelines).

We reviewed 184 patients in-person/over the telephone in a 4 month period during the COVID pandemic and asked about their current supplementation. 49.45% (91/184) of patients reviewed reported taking 400 international units (IU) daily with 26% (48/184) taking >400IU daily, 12.5% (23/184) of these patients reviewed had a vitamin D level <25nmol/L. In those with a level <25nmol/L, 30.43% (7/23) were taking 400IU, 26% (6/23) were taking >400IU daily and 34.78% (8/23) were on no supplements at all. The average age was much higher at 16.86 years in this group compared to the overall average age of 12.34 years.

**Conclusions** In our audit we established that 56.52% (13/23) patients reviewed in-person or over the telephone who were Vitamin D deficient as per the NICE definition (<25nmol/L), were taking at least 400IU of Vitamin D daily (the recommended dose for children at increased risk of Vitamin D deficiency). This highlights the need for further studies and clearer international guidance re. prevention of and management of Vitamin D deficiency in these high risk SCD patients. The Sickle Cell Society and Public Health England (2019) guidelines recommend that Vitamin D deficiency be identified and treated according to local guidelines in all SCD patients. Those identified as Vitamin D deficient during the audit process were prescribed a higher dose of Vitamin D where possible with regular input from our hospital pharmacy team. We continued our policy of aiming to check Vitamin D levels twice per year with increased frequency of checks for those who required high dose Vitamin D treatment. Given the above findings, a plan was placed to make a more concerted effort to continuously ask patients re. vitamin D supplements during clinic and hospital visits.

British Society of Paediatric Gastroenterology, Hepatology and Nutrition

**1665 Adherence to ESPGHAN Guidelines for Diagnosing Paediatric Coeliac Disease in an English District General Hospital**

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Background Coeliac disease (CD) is a systemic immune-mediated disorder caused by the ingestion of gluten and related prolamines in genetically predisposed individuals. The 2012 ESPGHAN guidelines suggested a no-biopsy pathway (NBP) for symptomatic children with IgA-based Tissue Transglutaminase (TGA-IgA) >10x Upper Limit of Normal (ULN). Biopsy confirmation remained mandatory for all other cases.

Objectives This retrospective case note study was aimed at evaluating the extent of adherence to the ESPGHAN 2012 guidelines for diagnosing CD in our unit.

Methods 179 cases with positive TGA-IgA were identified from the laboratory database between January 2013 to December 2020. 17/179 (9%) patients were not referred to secondary care after the finding of positive TTG in primary care. Data was collected on the diagnostic pathways followed, and adherence was compared with the existing ESPGHAN 2012 guidelines.

Results 129 cases assessed for CD were included and 124 children diagnosed with CD. 68/129 (53%) were diagnosed via the NBP, 57/68 were diagnosed via NBP until December 2019 and 24/57 (42%) children did not meet triple criteria as per 2012 ESPGHAN guidelines. HLA-DQ2/DQ8 testing wasn’t done for 16/57 NBP cases and other 3/57 had a negative EMA result. In 2020, 13 patients were diagnosed via NBP, 11 in adherence to the 2020 ESPGHAN guidelines, other 2 (TGA-IgA <10xULN) were via regional interim COVID-19 pathway.

Conclusions Adherence to the recommended diagnostic guidelines need to be tightened up to ensure firm diagnosis of CD. Regular educational sessions at regional/local level are needed to improve the referral, understanding and implementation of the diagnostic pathways. The revised 2020 ESPGHAN guidelines which excluded HLA-DQ2/DQ8 and allows NBP for asymptomatic children with TGA-IgA ≥10xULN thus simplifying the diagnostic process.

Child Protection Special Interest Group

**1666 Radiological Investigations for Suspected Physical Abuse in Children: An Audit of Local Practice**

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Background In 2017, ‘The radiological investigation of suspected physical abuse in children’ guideline was released by the Royal College of Radiologists (RCR) and endorsed by the Royal College of Paediatrics and Child Health (RCPCH) to ensure consistency of practice across the UK. This in turn would allow children to be appropriately safeguarded by safeguarding partnerships.

Objectives To reflect the new guidance, our trust protocol was updated in March 2019. We completed an audit evaluating the impact this had on our clinical practice and whether it helped align us with the national guidance on investigating suspected physical abuse.

Methods Information on patients who had radiology imaging for suspected physical abuse between October 2018 and October 2019 was collected from trust radiology databases and electronic patient records and audited against the national guidance. Standards audited included timing and reporting of initial skeletal survey and neuroimaging, timing of follow-up surveys, sedation use and informed consent. Where possible, information on radiation dosage was collected.

Results In 12 months, 16 children had skeletal surveys, with ages ranging from 1 day to 15 months. Introduction of the local trust protocol in March 2019 in line with the RCR guideline led to improvements in nearly all aspects of radiological investigation (see table 1). For the 6 patients with suspected physical abuse occurring post protocol change, all skeletal surveys occurred within 72 hours with the majority reported within 24 hours and all having follow-up skeletal surveys. Infants who didn’t undergo sedation for their skeletal survey were under 3 months old, where ‘feed and wrap’ techniques were appropriate and successful. Despite new guidance