precise recurrence risk and prenatal diagnosis offered if indicated.

32%(43/133) were referred to a specialist for the condition; 16%(23/133) informed re-orientation and palliative care. Current management and prognosis were supported in 16%(22/133) and specific treatment such as transplant or medication was provided in 13%(19/133). Specific screening was arranged in 5%(7/133).

Conclusions This is the first NHS-based diagnostic service which provides rapid genetic diagnoses in acutely unwell children and the largest reported cohort of patients undergoing rapid exome sequencing. It demonstrates that this innovative and transformational national service has successfully provided rapid results while maintaining a high diagnostic rate. Most importantly, diagnoses have influenced both acute management in intensive care settings and long term management for children and their immediate and extended family members.

British Association of Perinatal Medicine and Neonatal Society

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REDUCTION OF PERINATAL BRAIN INJURY -AUDITING COMPLIANCE OF THE 2030 NATIONAL TARGET IN A DISTRICT GENERAL HOSPITAL IN THE UK

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Background Hypoxic-ischaemic encephalopathy (HIE) is the largest contributing factor to brain injury in term neonates. In 2015, the Department of Health in England announced an ambition to reduce 'brain injuries occurring during or soon after birth' by 20% by 2020 and halve them by 2030. In 2015, the incidence of HIE in England was 2.6 (2.5 to 2.8) per 1000.

Objectives We studied the profile of HIE cases in a District General Hospital in the South East of England, the UK looking into the trends and for any opportunity for improvement.

Methods We collected information using the Badgernet neonatal database and the patient notes.

In 2019, we studied the profiles of babies diagnosed with hypoxic-ischaemic encephalopathy from January 2018 to June 2019 in our hospital. We audited the HIE assessment against South East Coast UK neonatal care pathway; Time=Brain. Several recommendations were put in place for optimising perinatal care. These included increased senior consultant midwife presence on labour wards for longer hours, expediting caesarean section decisions once CTG abnormalities detected without waiting for fetal blood sampling results. There were also regular structured multidisciplinary simulations; an intraosseous access kit was introduced in the neonatal resuscitation trolley and usage of a structured resuscitation proforma was put into place.

In 2020 we reassessed the HIE profile and the compliance with SBLCB2 (Saving Babies Lives Care Bundle) and NHS LTP (Long Term Plan) goals in the reduction of neonatal brain injury. The characteristics of babies admitted to the

neonatal unit with HIE over 16 months period (July 2019 to Oct 2020) were studied.

Results The incidence of cases of HIE needing therapeutic hypothermia was 2.3 per 1000 in the audit 2019 (15 HIE/6732 live births) and 1 per 1000 in audit 2020 (6 HIE/5972 live births). There has been a 56% reduction in the incidence.

Conclusions The limited number of cases in the two cohorts is a limitation of the study. However, by an interdisciplinary team working with maternity and neonatal medical and nursing teams, the incidence of HIE cases that needed therapeutic cooling has been reduced by 56% between the two data collection periods. The following recommendations were put in place after the re-audit in 2020

1. To keep using the neonatal resuscitation proforma and to audit the resuscitation process against RCUK guidelines.
2. To continue structured, objective, focused and frequent (weekly) simulations putting the learning from national reviews like Healthcare Services Information Board (HSIB) into practice.
3. To escalate to use intraosseous access if difficulty in umbilical venous access is encountered during resuscitation.
4. Local difficult neonatal airway pathway is being formulated.

Quality Improvement and Patient Safety

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SURVEY OF IMG PAEDIATRIC TRAINEES' EXPERIENCES IN WEST MIDLANDS

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Background International medical graduates (IMG) face unique sociocultural and educational challenges during their training in the UK. Identifying and working on these challenges would help in addressing the differential attainment of IMGs in post-graduate medical education in the UK.

Objectives We aimed to capture the challenges faced by IMGs in paediatric speciality training and identify possible solutions to enable them to reach their full potential.

Methods A semi-structured online questionnaire consisting of multiple-choice and free text questions was designed to collect data on the demographics, challenges, self-reported performances, and potential solutions. The survey was anonymously filled by 45 IMG paediatric trainees in the West Midlands.

Results Demographics

- 24 (53%) IMG trainees started their training at ST1.
- 36 (80%) completed their foundation training outside the UK/EEA.
- 41 (91%) had prior experience in the NHS, with an average duration of 19 months.

Challenges

- Commonly reported challenges in paediatric training were work-life balance (69%), portfolio and assessments (62%), placements (60%), meeting speciality (GRID) training requirements (60%) and socio-cultural issues (60%).

- Lack of trust among seniors and nursing colleagues, loneliness and isolation, difficulty with reporting and escalating difficulties, and communication issues were among other reported challenges.
- 7(15.6%) respondents reported having faced complaints but felt well supported by their supervisors on those occasions.
- 11(24.4%) IMG trainees had worked less than full time (LTFT) while 5 (11%) had pursued out of programme activities (OOP). 16(35.6%) trainees felt that being an IMG hindered them from working LTFT or pursuing OOP due to visa or financial restrictions.

Performance:

- 9 (20%) of the respondents have had unfavourable ARCP outcomes requiring additional training time. Difficulty in passing membership exams was quoted as the important reason for this outcome.
- Poor performance with nil achievement was reported by 32 (71%) trainees in publication, 29 (64%) trainees in research and 16 (35%) trainees in leadership domains.
- IMGs felt to be at a disadvantage in the Grid application process due to lack of recognition of their overseas experience, poor representation in management positions, inability to boost CV through OOP projects, language and communication difficulties and lack of guidance in the application processes.

Solutions

- The major sources of support were peers, consultants, and supervisors.
- Enhanced support with regards to examinations, portfolios, audits, publishing and research, having a platform to discuss IMG specific challenges, addressing bias about their capability, improving cultural awareness and nurturing a friendly and non-judgemental work environment would help to improve the performance and well-being of IMG trainees.

Conclusions Our survey finds that in addition to meeting the demands of a rigorous training programme, IMGs also face additional difficulties in the form of isolation, socio-cultural and communication issues. Further studies are needed to quantify the difficulties and performance of IMGs in paediatric training in comparison to trainees with UK primary medical qualification. Ensuring that IMGs benefit from the existing support system while exploring strategies to enable equal opportunities will help in addressing differential attainment of IMGs in paediatric training.

Quality Improvement and Patient Safety

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ANALYSIS OF THE CHILDREN'S ABDOMINAL PAIN PATHWAY PRE AND DURING COVID AND IMPLEMENTATION OF THE PAEDIATRIC APPENDICITIS SCORE (PAS) IN THE MID-YORKSHIRE TRUST

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Background In 2018 The Mid Yorkshire Hospital Trust (MYHT) was identified as a national outlier for its paediatric negative appendectomy rate (23%), compared to the national average of 14%. A previous audit highlighted the lack of

adherence to the pathway, with children not being reviewed by paediatricians prior to a surgical opinion, leading to delayed and inappropriate treatment. The PAS score was implemented to improve patient outcomes. An analysis occurred to establish the morbidity in children in relation to their score and adherence to the pathway. The analysis of the efficacy of the score for the accurate diagnosis and appropriate treatment was carried out in two timeframes, allowing for the impact of COVID-19 to be interpreted.

Objectives

1. To determine the prevalence of histologically negative appendicectomies pre COVID-19 and during the pandemic.
2. To evaluate the effectiveness of PAS in reducing the rates of inappropriate appendicectomies.
3. To analyse the proportion of children who can be excluded from the pathway with clear alternative diagnosis.
4. To review and initiate change in the abdominal pain pathway.

Methods Data was collected on children (N=770) presenting to MYHT A&E, Children's assessment unit (CAU) or Paediatric department with abdominal pain between 1/1/2020 to 30/6/2020. Data was collected through Symphony, PPM, ICE and Cito. The clerking documentation, PAS and results were evaluated prospectively. Data was analysed and compared based on two timeframes, pre COVID-19 (1/1/20–31/3/20) and Post the initial wave of COVID-19 (1/4/20–30/6/20). Data was interpreted by Microsoft Excel.

Results From the 770 abdominal pain presentations, 68 possible appendicitis were identified. 24.9% were NSAP and 17.9% UTI. 36 appendicitis were confirmed, 14 Pre COVID-19 and 22 Post initial wave. Three were conservatively managed, two were transferred to a tertiary centre as under five. Pre COVID-19 – 10 appendectomies, 9 histologically positive and 2 perforations (table 1). Post initial wave – 21 appendectomies, 19 histologically positive and 7 perforations. Negative appendectomies were of tubo-ovarian pathologies. 50.57% children received PAS pre COVID-19 and 62.77% during COVID-19. 25% less children presented during COVID-19 and there was a 250% increase in perforations. 85.98% followed pathway. Negative appendectomy rate following the pathway was 5%, 16.7% if not followed.

Abstract 1439 Table 1 Histologically positive appendectomies and PAS interpretation

Histologically positive and PAS	PRE-Covid	Post-initial wave	Total
0–2	0	0	0
3–6	1 (100%)	2 (66.7%)	3 (75%)
7+	5 (100%)	13 (92.3%)	18 (94.5%)
Not adhered	3 (75%)	4 (100%)	7 (87.5%)

Conclusions Only a small proportion of children presenting to secondary care with abdominal pain have appendicitis (4.7%) highlighting the importance and need to see a senior paediatrician prior to surgical review. The paediatric appendicitis score is an effective and accurate diagnostic tool when used with clinical knowledge. The increased rate of perforations indicate how the pandemic resulted in delayed presentations. Higher negative appendectomy rates occurred when the pathway was not followed. PAS needs to be added to clerking booklets and calculated for every child with suspected