This trend remained the same for both viral and bacterial URTIs. Patients from less deprived households were less likely to be discharged and more likely to be admitted, for both short (< 24 hours) and longer admissions (> 24 hours). Mapping of patient postcodes highlighted 'hotspots' of patients in the North East.

Conclusion There is a significant relationship between social deprivation and presentation to Paediatric A&E with URTI in the North East. Most patients presenting to Great North Children's Hospital Paediatric A&E with URTI came from more socially deprived backgrounds.

G220(P) THE ROLE OF ULTRASOUND AND PAEDIATRIC APPENDICITIS SCORE IN THE DIAGNOSIS OF APPENDICITIS IN CHILDREN

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Aims Appendicitis is the most common abdominal surgical emergency in children. However, the diagnosis can often prove to be challenging. The aim of this study was to evaluate the role of ultrasound and clinical scoring tools such as paediatric appendicitis score (PAS) in facilitating the diagnosis of appendicitis in children who underwent an emergency appendicectomy.

Methods We retrospectively analysed the clinical records and preoperative imaging of a total of 39 patients under the age of 18 who underwent an emergency laparoscopic or open appendicectomy over a 6 month period between November 2018 and May 2019. Clinical history, examination findings and laboratory data were used to calculate PAS. The diagnostic performance of PAS and ultrasound were evaluated using histopathology as the gold standard to confirm the diagnosis of appendicitis.

Results Overall, there was a 13% negative appendicectomy rate. 20 appendicectomies (51%) occurred in the high risk PAS group (PAS ≥7), and this correlated with 100% positive histology for appendicitis. This compares with the intermediate risk PAS group (PAS 4–6) which had positive histology in 72% (13 children). 8 children (40%) with a high PAS underwent an ultrasound preoperatively, compared to 18 children (100%) with an intermediate PAS. When compared to the data from April – September 2018, there has been a 12% reduction in use of ultrasound in high risk PAS (52% to 40%). There was a delay of 11 hours in time taken to theatre between those children who had an ultrasound scan pre-operatively compared to those who did not.

Conclusions Despite there being some improvement, ultrasound is still being used extensively to investigate appendicitis in children. Overall PAS was a better tool than ultrasound in diagnosing appendicitis. This study has emphasised the importance of clinically risk stratifying patients into high, intermediate and low risk PAS. Ultrasound requests should be reduced in high risk PAS children due to delays in definitive treatment and a 0% negative appendicectomy rate. This in turn, should positively impact outcomes such as length of hospital admission, perioperative and postoperative complications.

G221(P) A CHANGE IN THE APPROACH TO THE MANAGEMENT OF SORE THROAT IN CHILDREN

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Aims Sore throat and fever is a common reason for children to present acutely to the Emergency Department. Despite mainly being a self-limiting illness, antibiotics are often prescribed despite limited evidence of benefit. Previous practice had been to use bacterial throat swabs to identify children who require antibiotic treatment. However, recent NICE guidelines have promoted a score based approach to treatment (FeverPain or Centor) in order to limit antibiotic use and reduce resistance. This approach is still not followed uniformly, and in some units bacterial throat swabs are being taken routinely to guide treatment.

Our aim was to identify whether the use of bacterial throat swabs in our unit was leading to over-prescribing of antibiotics and the medicalisation of a primarily self-resolving illness

Methods We retrospectively reviewed the use of antibiotics for sore throat on 60 patients who had throat swabs taken between October and November 2018. Swab results were retrieved from the microbiology information system and FeverPain (FPS) score was calculated from clinical notes.

Results Clinical scores were not documented for any patients.

38 children (63%) were prescribed antibiotics, 20 (53%) of which were prescribed for 5 days and then discontinued after a negative throat swab result was received. Only 5 (8%) patients were confirmed as having a Group A Streptococcus on their throat swab, 4 of whom had been initiated on antibiotics.

Of the 38 children given antibiotics, 18 (47%) met the FPS criteria for treatment. (score 4 or 5). A further 6 out of the 11 children who were not prescribed antibiotics, also met the criteria.

Conclusions Less than half of those children who were treated with antibiotics would have required treatment if the FeverPain score was used. Implementing a score based approach would have reduced the overall antibiotic prescribing from 63% to 40%. Not only would this reduce unnecessary antibiotic use and the costs associated with performing throat swabs but would also be more in line with practice in primary care, emphasising the self-limiting nature of the illness and the ability to manage at home.

G222(P) FAMILY-CENTRED CARE PRIOR TO TRANSFER OF THE CRITICALLY ILL CHILD

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Background Managing and stabilising a critically ill child within a district general hospital prior to transfer to PICU can present communication challenges. Our study aims to identify ways in which teams can improve the delivery of family-centred care during this difficult time.

Methods We reviewed the notes of 14 children who were transferred from the resuscitation area of a district general hospital to a tertiary PICU over a one-year period. We then

conducted semi-structured telephone interviews with 14 parents focusing on the team's communication with the family and how this could be improved.

Results When reviewing patient notes, documentation of clinicians' discussions with families was poor. Only 20% of notes had evidence of these discussions taking place. This was in stark contrast with the feedback from families themselves, with 100% of parents feeling they were adequately updated throughout. It is assumed that the most senior clinician should update parents whereas the parental voice refutes this, with 80% preferring to have an update from a junior member to allow the most senior person to focus on their child. 75% of parents recall needing to have explanations repeated. 88% of parents remember overhearing words that frightened them. Where available, 60% of parents were grateful to other allied healthcare professionals who offered one-to-one support (e.g. play specialists).

Take-Home Messages

- Listening to parental voices allows teams to reflect on the true impact of their interaction with families
- Updates can come from any team member, not necessarily the most senior
- Documentation of communication is poorly done, not the communication itself
- Be prepared to re-explain things and re-check understanding
- Be sensitive to medical jargon and discussions that parents can overhear
- We recommend having dedicated teaching for play specialists and allied healthcare workers about the algorithms and the equipment used during emergencies, so they are able to explain to parents what is happening during stabilisation. Allied healthcare workers and play specialists should be involved in MDT in-situ simulation teaching
- Parents may forget the technicalities of what was said and the complexity of the situation – they remember how they felt and how they were made to feel

G223(P) AN EVALUATION OF A NEW WHEEZE PATHWAY

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Background Wheeze is common in the pre-school age group. Whilst clear guidelines exist for the management of children with bronchiolitis and asthma, there is debate regarding the best treatment plan for children with pre-school wheeze. Following a service evaluation in 2017, a new wheeze pathway was introduced. The pathway aims to provide clear guidance to healthcare professionals on the management of these patients by categorising severity, thereby reducing variation in practice and avoiding adverse outcomes.

Aims The primary outcomes for this study included length of admission in hours (length of stay, LOS), analysis of interventions given, and need for HDU-level care. A staff survey was taken to provide feedback on this pathway.

Methods Data collection occurred during September and October in 2017 and 2018. Data was collected retrospectively from the notes and charts of all patients aged 12–59 months who presented with wheeze (n=144 (2017), n=181 (2018)). Data analysis, including regression, was performed using SPSS.

Results The median LOS reduced from 10 hours in 2017 to 8 hours in 2018 (p=0.013). Nebuliser usage reduced from 58.3% to 23.8% (p<0.01). Back-to-back nebuliser usage was reduced by 27% (p<0.01). The number of children receiving HDU-level care was unchanged (8.3% 2017; 9.7% 2018). SpO₂ <92% on arrival was the only consistent predictor for the need for HDU-level care (p=0.004 2017, p=0.008 2018). Heart rate on presentation was weakly correlated with a longer LOS (R=0.276, p=0.003 in 2017, R=0.167, p=0.003 in 2018). Children from smoking households were associated with a longer LOS (Geometric mean LOS 12.25 hours (smoking), 8.77 hours (non-smoking), p<0.01). The staff survey indicated that most staff found the new pathway helpful and accessible.

Conclusions The new wheeze pathway had no negative impact on LOS or need for HDU-level care. It reduced the nebuliser usage in this group of patients with no adverse effect on outcomes. The only predictive factor at admission for need for HDU-level care was SpO₂ <92%, which puts a patient into the severe category on the pathway, supporting the classification system. Staff were encouraging about the pathway and presented suggestions for further improvements. The study highlighted the importance of standardised care, although more research is needed to ensure best practice for all patients.

G224(P) RECTAL BLEEDING PRESENTING TO THE PAEDIATRIC EMERGENCY DEPARTMENT

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Aims Bleeding per rectum is an alarming symptom for caregivers. The differentials are wide ranging from benign to life threatening. We conducted a literature review and were unable to identify any studies on undifferentiated paediatric patients presenting to the Paediatric Emergency Department (PED) with lower gastrointestinal bleeding in a UK population. We therefore aimed to explore the aetiology, diagnostic tools used and management options for infants, children and young people presenting to the PED with lower gastrointestinal bleeding.

Methods Retrospective case note review of all patients presenting to a tertiary PED within a two year period (April 2017 to March 2019) with bleeding per rectum was performed. Cases were identified by reviewing all presenting complaints including the words 'blood' or 'bleeding' for those including key words e.g. rectal, nappy, stool etc. Data was then collected using a standardised data collection form for the following variables; age, sex, diagnosis in PED, urgent intervention required, diagnosis on follow-up, diagnostic concordance between PED and follow-up diagnosis, investigation (stool, blood, imaging), admission, outpatient referral and reattendance during the study period.

Results A total of 90 cases were identified, 10 were excluded as they did not meet inclusion criteria (n = 80). This made up 0.14% of all presentations to the PED within the two year period. Median age was 5 years (3 months – 15 years) with 51% female and 49% male. Collectively constipation and gastroenteritis accounted for 76% of diagnoses. 24% of patients were admitted the same day and 38% referred for outpatient follow up. There was agreement between PED diagnosis and outpatient diagnosis in 87% of cases. 5% of cases required urgent intervention.