for care of a child with DS on PICU. A guideline was produced, edited and reviewed at a hospital guideline meeting, and agreed on by all PICU consultants.

Results Using DSMIG guidance, a hospital guideline could be produced for medical care of children with Down Syndrome, with additional specific requirements for PICU. Key PICU-specific considerations were noted and agreed on by a consultant team in terms of: airway; respiratory; cardiovascular; neurological; and infection.

Conclusion An admission to PICU can be a window of opportunity to ensure a child with DS is receiving the correct support from a multidisciplinary team, whilst there are also key PICU-specific considerations for their care. An SHO working under different leaders has an opportunity to develop a guideline to define and standardise a gold standard of care.

G279(P) THE DIAGNOSIS OF ASTHMA IN CHILDREN IN PRIMARY CARE AND THE EMERGENCY DEPARTMENT

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Aims This audit was undertaken to measure compliance of the diagnosis of asthma in children to NICE guidelines (Age over 5 and documented objective evidence of asthma). In the primary care audit, the aims were to review the age at diagnosis and the percentage of children in whom objective evidence of asthma was documented. In the emergency department (ED) audit, the aims were to review at the age at diagnosis, whether any previous evidence of asthma was documented, and whether the child was discharged from ED.

Methods A snapshot audit at a general practice surgery, was undertaken of children (less than 16 years old) with a coded diagnosis of 'Asthma', to review the age at diagnosis and whether any objective evidence of asthma was documented at diagnosis.

50 consecutively cases of asthma in children presenting to the emergency department (ED) in a district general hospital were then retrospectively audited to review the age at presentation, whether there was evidence of previous asthma diagnosis and whether the patient was discharged from ED.

Results In the GP surgery, there were 83 coded cases of asthma in children. 51 children (61%) were diagnosed under 5, with 9 children (11%) who had objective evidence of asthma documented at diagnosis.

In the ED, 50 cases were collected of which 4 were excluded as they were referred to the other services, or for incorrect coding for unrelated diagnoses. Of the 46 remaining, 14 were under the age of 5 (30%) and 27 diagnoses conformed to NICE guidelines (59%). 33 children (72%) were discharged from ED to their GP, 20 of whom had correct diagnoses (61%).

The coding system in ED did not allow for separate coding of viral induced wheeze and asthma hence the 19 incorrect diagnoses likely represented viral wheeze.

Conclusions The most likely reason for the apparent low rate of correct diagnosis is the significant challenge of obtaining objective evidence of asthma in children. This audit also adds evidence to suggest that discharging children from ED with incorrectly coded diagnoses can further confound the already complex issue of diagnosing asthma in children.

G280(P) BREATHING PATTERN DISORDERS: CHARACTERISTICS AND OUTCOMES OF CHILDREN ATTENDING A SECONDARY CARE RESPIRATORY CLINIC

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Aim Breathing Pattern Disorders (BPD) previously termed dysfunctional breathing are due to functional abnormalities of the thoracic or laryngeal mechanics of respiration that result in inefficient breathing and a variety of symptomatology. Symptoms such as dyspnoea are significantly handicapping and disproportionate to extent and severity of any associated disease e.g. asthma. Paediatric studies of BPD and outcomes are few yet we are increasingly recognising children attending our respiratory clinic and referring patients for specialist speech and language therapy (SALT). We therefore reviewed our experience.

Methods Retrospectively we analysed health records of 18 children with BPD referred to specialist SALT between 2015 to 2018 from a respiratory clinic.

Results Age range 11–16 years (median 14 with 14 female, 4 male). Co-morbidities 16 Asthma, 2 Oesophageal atresia & TOF repair, 1 Chronic Regional Pain Syndrome, 1 Chronic Fatigue Syndrome. Commonest BPD was induced laryngeal obstruction (ILO) in 16 patients (exercise induced EILO in 15). Other types of BPD included hyperventilation in 7; psychogenic cough 8 and dysphonia 1. A single BPD was present in 6 (EILO) with two or more in 10 patients. Inducers of BPD were exercise 16; bullying 3; anxiety 14; stress 11; weather 3; posture 1; odours 3. Majority had significant school absences (1–24 months). Delay in diagnosis (1–24 months median 6 months). Emergency calls in 14 with one patient with ILO needing ventilation. Follow up minimum at 1 year 2 complete resolution, 14 good control of BPD and more confident with improved morbidity and school attendance; 2 no improvement; 1 lost to follow up. De-escalation of asthma treatment in 16 patients.

Conclusion BPD are important to recognise and treat early to limit the significant morbidity that adversely impacts quality life. The establishment of a referral pathway with early input of a specialist SALT allows rapid resolution of symptoms in many and prevents exhaustive unnecessary investigation and those with co-existing asthma inappropriate escalation of treatment.

G281(P) IMPROVING PARENTAL UNDERSTANDING OF CHRONIC NEONATAL LUNG DISEASE (CNLD) AND SATISFACTION WITH INFORMATION PROVISION REGARDING CNLD AND HOME OXYGEN PATHWAY

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Background CNLD is a multifactorial condition affecting premature infants and remains a major source of morbidity and mortality for extremely low birth weight infants. The management of the disease is a large burden to the child's family due to its long and complicated multidisciplinary care-pathway. Therefore, it is vital to fully educate parents

about their child's care in order to improve patient outcomes.

Aim We aim to improve the satisfaction with information provision regarding CNLD and Home Oxygen requirements, to a self-evaluated level of 4–5/5, for at least 80% of parents with affected children at the William Harvey Hospital (WHH) by March 2019.

Methods Continuous questionnaires were answered by parents of CNLD patients at WHH to quantify the effect of our PSDA cycles. A total of four cycles were conducted which involved distributing questionnaires to healthcare professionals, composing and delivering a parent reviewed information leaflet and creating a parent information video and finally presenting our evidence and parent information resources as an intervention to neonatal respiratory team at WHH.

Results When measuring parental understanding of CNLD, self-reported rates of 4 or 5/5 increased from 64% to 100% by the completion of our project. Similarly, self-reported rates of 4 or 5/5 for parent satisfaction with the provision of information regarding CNLD and Home Oxygen rose from 64% and 82% to 100% respectively. Combined effect of written (leaflet) and audio-visual (video) information were thought to contribute to the high level of satisfaction in parents and carers.

Conclusion Parental understanding of CNLD is vital in order to provide the best care for affected infants. Care-pathways must ensure high standards are maintained and we demonstrate this is achievable with clear parent information resources and education of the relevant healthcare team.

G282(P) GASTROSTOMY PREVALENCE IN THE PAEDIATRIC POPULATION: A SYSTEMATIC REVIEW

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Aim It is known that the rate of gastrostomy insertion in the paediatric population is increasing. The prevalence of gastrostomies in the paediatric population has significant implications for health service provision, both for insertion and long-term management of the tubes. We sought to identify published literature describing the prevalence of gastrostomy tubes in the general paediatric population.

Methods A systematic review was performed using the keywords 'gastrostomy', 'paediatric', and 'prevalence' to search PubMed and Medline. The search was limited to 2008–2019. Duplicates and abstracts not containing the word 'gastrostomy' were excluded. The remaining abstracts were read. Full text versions of those relevant to the study were selected and the references scrutinised for any additional articles that were of interest to the study.

Results The initial search returned 3953 articles; 552 duplicates were excluded. The remaining 3401 articles were censored to those published in the last ten years (2008–2019), leaving 2060. 526 included the word 'gastrostomy', whose abstracts were read, leaving 15 papers focusing specifically on gastrostomy prevalence for which the full text was read. The references of these papers were scrutinised, yielding 1 additional publication, bringing our final count to 16.

Of the 16 papers, only 8 were exclusively paediatric. Four of these were studies of population-wide period prevalence. Of these, three studied gastrostomy tube insertions (one solely PEG insertions), two report insertion rates across a population, but not the prevalence of indwelling gastrostomy tubes in that population. Only one study reported the prevalence of gastrostomy in a paediatric population. This found a rate of tube feeding at home of 83–92:100,000 children/year, of which 60% were gastrostomy tubes (50–55 gastrostomies/100,000 children/year).

Conclusion There is a significant volume of published literature describing the indications for, insertion techniques and complications of gastrostomy. However, literature relating to the prevalence of gastrostomy use in the paediatric population is scarce. Further studies are required reporting the prevalence of gastrostomies across a paediatric population, as this has significant resource implications and is of interest to policy makers, health care commissioners and providers.

G283(P) APPRAISAL OF POST PERMANENCE CLINIC

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Background The Adoption Support Fund (ASF) recognised additional needs of adopted children and those placed under a Special Guardianship Order (SGO) which has increased awareness and referral.

Aim To explore the feasibility and value of a specific clinic for children placed permanently with adopters or special guardians who have been referred to Community Paediatrics.

Method Clinic led by a clinician experienced in working with traumatised children. We looked at risks, presenting concerns (table 1), new diagnoses made, actions taken and parental satisfaction.

Results 29 children were referred from April 17- March 19: 12 on SGOs; 17 adopted. Referrals came from CAMHS, GPs, school and paediatricians. Average ages at permanent placement were the same for both groups - 3 years of age; average age at referral - 6 years.

Increased ACEs including, child abuse and neglect, and antenatal risks, were very common.

24% of children were born premature and 20% small for dates.

Pre-clinic diagnoses:

- 11 children known to CAMHS diagnosed with mixed emotional behavioural disorder and attachment issues
- 2 with language delay

Abstract 283(P) Table 1 Parental concerns

Concern	Primary Concern	Additional Concern
Physical	6	1
Externalising Behaviours	5	10 including 2 sexualised behaviour
Internalising Behaviours	2	0
Attention/?ADHD	4	5
Eating and Drinking	3	3
Elimination	1	0
Sleep	2	0