

**Results** Over the past 20 months there have been a total of 130 nominations to date. 20 themes have been coded including evidence of good teamwork and communication, putting the child and family at the centre of care and staff acting to positively affect patient safety or preserve further harm when an incident had occurred. There has been some feedback from nominees saying how delighted they were receiving the award, how it had made their day, and how grateful they are.

**Conclusion** For those staff who have received a nomination there has been some evidence of an increase in morale. There have been areas within paediatrics who have embraced this new system more than other areas. As an oversight group we need to highlight the process more. The plan would be to generate a bi-annual report for the paediatric service and present the learning Trust wide. We have supported other areas in the Trust to implement GREATix, including introducing it into the clinical pharmacy team. Our IQI team in the Trust are meeting with the small number of areas within the Trust who have implemented this and plan to look at the way forward as to how we can collaborate to introduce this further within the Trust.

#### REFERENCE

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#### P23 PIRACETAM FOR BREATH-HOLDING SPELLS

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**Context** Breath-holding spells (BHS) are a non-epileptic event where the child involuntarily stops breathing, typically for less than one minute, varying from several times daily to a few times a month.<sup>1</sup> There are two types of BHS: cyanotic and pallid; cyanotic occurs in response to fear or anger, causing oxygen desaturation and loss of consciousness, and pallid can be triggered by pain or fear, causing pallor, oxygen desaturation, and seizure-like movements.<sup>1</sup> The child is a 7-year-old girl with Cornelia de Lange syndrome and a past medical history of respiratory infections and gastroesophageal reflux disease. She was diagnosed with BHS with up to 120 episodes daily. Her electrolytes, renal function, ferritin and haemoglobin levels were within normal ranges. There is no evidence of epilepsy, iron-deficiency anaemia, or abnormal neurological findings. Due to her severe BHS, her case was discussed at the British Paediatric Sleep Society videoconference by her consultant, resulting in the suggestion of a piracetam trial. This is a nootropic drug which works by restoring cell membrane fluidity and neurotransmission with anticonvulsant properties, improving neuronal function.<sup>2</sup> Piracetam is currently licensed for post-anoxic myoclonus in adults, with very little evidence of use in BHS.

**Pharmacist Contribution** There are currently no national, international, or local guidelines on treatment of BHS. A literature review was conducted using MEDLINE and EMBASE, resulting in two randomised-controlled trials (RCTs) being analysed: one demonstrated a 77% complete response of BHS with piracetam compared to 6% in placebo group, which was statistically significant ( $p < 0.05$ )<sup>3</sup>, and another demonstrated a reduction in median overall number of attacks/month of 1 in the piracetam group, compared to 5 in the placebo group ( $p$

$< 0.001$ ).<sup>4</sup> NHS Networks was used to contact other centres for advice, with no responses. The patient had comparable characteristics to those in the studies, so piracetam was initiated at a starting dose of 40 mg/kg/day as recommended in the two RCTs. A licensed liquid formulation was available for use in adults which was used off-label. A risk assessment was carried out to ensure safe use and approval sought from the medicines committee.

**Outcome** The incidence of BHS initially improved with a reduction in desaturations, however increased again which coincided with teething pain. After an MDT discussion, the dose was increased in line with the clinical trials, with no reported adverse effects.

**Lessons Learned** Drugs used in adults are often extrapolated for use in children, either on an unlicensed or off-label basis. A thorough literature review was required, especially regarding dosing and safe administration, and exploring appropriate formulations. To ensure safe use, a risk assessment with the MDT is required to ensure benefits outweigh risks, and increased monitoring is in place to assess any adverse effects.

**Conclusion** Our experience of piracetam in one patient with BHS shows that it can be used safely; however, this should be used on an individual case basis after discussion with the MDT. Further research is required in BHS and, in particular, the need for treatment guidelines.

#### REFERENCES

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2. Winblad B. Piracetam: a review of pharmacological properties and clinical uses. *CNS Drug Reviews* 2006;**11**:169–182.
3. Abbaskhanian A, Ehteshami S, Sajjadi S, Rezaei M. Effects of piracetam on pediatric breath holding spells: a randomized double blind controlled trial. *Iran J Child Neurology* 2012;**6**:9–15.
4. Sawires H, Botrous O. Double-blind, placebo-controlled trial on the effect of piracetam on breath-holding spells. *European Journal of Pediatrics* 2012;**171**:1063–1067.

#### P24 COMPLIANCE AUDIT OF ETHANOL LINELOCKS FOR PROPHYLAXIS AND TREATMENT OF CENTRAL LINE INFECTIONS

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Infections remain a devastating complication associated with vascular access devices. Removal of central venous catheter devices (CVCs) is costly, invasive and there are a finite number of access site in young children.<sup>1 2</sup> This has led to several preventative strategies. Fears of promoting drug resistance with antibiotic lock therapy and the possibility of systemic side effects have led to the use of ethanol-lock therapy (ELT). Ethanol is easily available and cheap, it is a potent germicide that can penetrate microbial biofilms, and it does not promote microbial resistance.<sup>3</sup> Current paediatric guideline has not been audited since implementation

**Aim** To audit guideline compliance for inpatient paediatric patients prescribed ethanol line locks and identify potential areas of improvement.

#### Objectives

- To identify the number of patients and indication for prescribed Ethanol line locks