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.

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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.[1] 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.[1] 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.[2] 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 ($p < 0.05$)[3], 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 ($p < 0.001$).[4] 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.

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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.[1 2] 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.[3] 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

- To determine the number of patients prescribed the correct volume and percentage of Ethanol line lock as per policy
- To identify any reported side effects and reasons for discontinuation
- To identify if consent has been granted and documented

Method Retrospective review of 46 paediatric ELT prescriptions over 4 years (2017 – 2021). These were identified using EPMA reports and dispensing records. A data collection tool was created; clinical notes and prescribing/administration records used to audit compliance to guideline.

Results Out of 46 central line associated bloodstream infections, 36 (78%) were eradicated by ELT and 40 (87%) did not result in catheter removal. 98% of prescriptions were accurately prescribed as per guideline, only 28% had a documented indication, review and duration. 0 patients had consent to therapy documented. 1 patient experienced an adverse side effect following a prescribing error (alcohol taste in mouth).

Conclusion Improvements in documentation required, notably for parental consent, treatment indication and duration. A change to the electronic prescribing order has been suggested to aid documentation in line with trust guidance. Although more research is required to assess the success rate of ethanol lock therapy, this retrospective study suggests that when used in conjunction with systemic antibiotics this technique has been effective in eradicating paediatric central line infections. Following this study, further research should be centred on the recurrence of central line associated bloodstream infections after initial eradication by ELT.

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P25 IMPROVING STOCK ACCOUNTABILITY OF LIQUID CONTROLLED DRUGS USING RULERS IN A CHILDREN'S HOSPITAL

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Context The Controlled Drugs (CD) (Supervision of Management and Use) Regulations 2013 lays out the legislation for monitoring of the management and use of CDs.[1] Inaccurate counting and poor record keeping of CDs can reduce staff time for patient facing activities.[2] It is a national recommendation that visual inspections of stock balance should happen in various time points: periodic volume checks and checks to confirm the balance on completion of a bottle.[3] Due to the patient population, a large proportion of the CDs stocked in the Trust are liquid preparations designed for multiple small volume administration. CD discrepancies contribute to over 100 Datix incident reports annually. This is largely due to volume lost during manual manipulation of bottle for dosing and weekly physical measurements undertaken by staff as per the Trust policy. It is estimated that approximately one hour of nursing time per ward/Theatre per week were taken away from clinical care for CD checks. It also introduces contamination risk due to decanting, as well as generating plastic waste associated with volume checking. To mitigate the risk, the Trust's Medicines Safety Committee (MSC) benchmarked liquid preparations volume checks against other paediatric centres. It was found that most did not undertake routine or physical measurements. Following a Care Quality Commission's CD National Group recommendation to consider using a calibrated bottle to aid visual inspection and accurate management[3], liquid CD rulers with volume increments were explored. CD rulers allow for a volume measurement to be approximated without the need of decanting the bottle. Following MSC's approval, the implementation of the liquid CD rulers was introduced. Ward stock lists were reviewed, and the manufacturers and brands of each liquid CD preparation was compiled into a database. Training sessions (both virtual and face-to-face) for pharmacy and nursing staff were delivered and facilitated over a period of three months, prior to implementation. The Trust CD policy was updated, and a local guidance developed, with all eventualities covered. This change in practice was communicated via email, nurse practice educators' network, and the Trust's medicine safety newsletter. The guidance was updated and uploaded onto the Pharmacy intranet webpage and put up in the clinical areas as a visual aid.

Lessons Learned The successful introduction of CD rulers have been well received across the Trust. The implementation required extensive support from the Trust's educational and pharmacy team. Feedback sessions were carried out post implementation and suggestions were used to update the guideline. Although there are financial implications, there has been a reduction in the number of CD discrepancies-related incidents. They have simplified and sped up CD checks and prevent the risks of spillage, contamination, and wastages. However, they cannot be used for opaque bottles and are tailored specifically to that drug, strength, manufacturer, and pack size, giving less flexibility in response to drug contract changes/shortages. A 6-month surveillance will be conducted to fully assess and review this change in practice.

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P26 SWITCHING FROM UNLICENSED ORAL MIDAZOLAM LIQUID TO A LICENSED PRODUCT FOR PREOPERATIVE SEDATION

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Background This specialist children's hospital used unlicensed midazolam 2.5 mg/ml oral solution for preoperative sedative. This product had various problems such as a bitter taste which often led to poor patient acceptability and a short expiry once opened. In this Trust midazolam oral solution is stored and recorded in CD registers and discrepancies in the running balance are often reported as clinical incidents and