

supporting the phase 3 study outcomes. Significant reductions in PEX rates, IV antibiotic use, 'bed days' and associated costs were all observed. Data demonstrated an absolute reduction in the use of 'AWaRE' antibiotics, although use still accounts for a high overall proportion in this cohort. Results are limited by the data periods. Potential impact of the COVID-19 pandemic on PEX rates ('shielding' population) should be considered. Nonetheless, the significance of these findings on overall outcomes and stewardship should not be downplayed. Ongoing review, including expanded patient populations (adults; 6–11 years) is essential. Further works looking at oral antibiotics use, epidemiology, genotype and previous CFTR treatment would support extended evaluation of the overall impact of Kaftrio® on infection management in CF.

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P21

EVALUATING THE IMPACT OF PHARMACIST TEACHING TO MEDICAL STUDENTS ON PAEDIATRIC PRESCRIBING

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Aim Medical students have a paediatric placement during their 4th year of medical school. Paediatric pharmacists are involved with teaching sessions to the medical students, including one on prescribing. The overall aim of this audit is to evaluate this teaching on prescribing delivered by the paediatric pharmacist to determine the impact pharmacist has. Specific aims are to: increase the confidence of the medical students in their prescribing; increase their competence in prescribing different medications on a kardex; and determine what extent of prescribing teaching they currently receive. The aim is to collect data for all the students that come for their paediatric placement throughout the academic year (September 2021 – June 2022).

Method Prior to the teaching session the medical students were given a questionnaire to complete with questions including how confident they felt in prescribing, how much training they have previously received in prescribing, and a number of different scenarios with medications to prescribe. They then received a teaching session including a practical session of prescribing on kardexes. Following this session, a questionnaire was completed by the medical students asking again about their confidence in prescribing, the different medications to prescribe again, and overall comments on the session.

Results The questionnaire was initially trialled on the first set of students in September 2021 and following this, changes were made to the questionnaire. The data from this group was therefore excluded from the results and analysis.

Data was analysed from the questionnaires of 33 students. Before the teaching session, 94% of the students were either 'Not at all confident' or 'Slightly confident' in prescribing for paediatric patients on an inpatient kardex. Following the session this percentage fell to 9% of the students. Instead, 91%

of the students stated they were either 'Somewhat confident' or 'Fairly confident'. The questionnaire contained 5 different medications to be prescribed on a kardex template including gentamicin, Clenil®, prednisolone, Epilim® and paracetamol. In the gentamicin scenario, only 3% of students got it completely correct before the teaching session compared to 21% after the teaching. In the Clenil® scenario, 82% of the students were incorrect, compared to after teaching when only 3% were incorrect, with the remainder being partially or completely correct. When prescribing prednisolone, 48% of the students prescribed it incorrectly before the teaching, with none of the students completing all prescribing elements correctly. After the teaching, only 3% were incorrect, with the majority partially correct and 27% completely correct. In the paracetamol prescription, only 3% of students got this totally correct before teaching with 76% of them completing all prescribing elements correctly after the teaching. In the final scenario on Epilim®, 52% of students were incorrect in their prescription compared to only 6% after the teaching.

Conclusion The data shows that the medical students' confidence in prescribing increased following the teaching session. In each of the prescribing scenarios they completed, the accuracy in these increased in all 5 scenarios. The paracetamol scenario showed the greatest improvement of all the scenarios.

P22

IMPLEMENTING GREATIX: LEARNING FROM EXCELLENCE IN PAEDIATRIC SERVICES

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Aim The paediatric service is extremely good at reporting incidents through Datix system. These incidents are reviewed, learning is identified and then information disseminated, or even a change in practice takes place, all with the aim to improve things and prevent errors happening. A regular bulletin is prepared for the multidisciplinary paediatric team with the paediatric pharmacist involved in the medication section of this bulletin. There is no system within the Trust for reporting all the good things that are happening and it was felt that the department were missing out on learning from these. Learning from Excellence¹ is not new and numerous areas, both locally and nationally have introduced it in some form.

The aim of this project is to identify and learn from everyday excellence as we currently learn from error via Datix, and to also improve staff morale. We wanted to have an anonymised way to let a colleague know they have done a great job. The ultimate goal would be to also interrogate and report findings.

Method A paediatric multidisciplinary oversight group was set up by the paediatric pharmacist and paediatric practice educator. A questionnaire was issued to paediatric staff, examining morale. Resources were developed to support reporting, data collection and nominee feedback. Following some meetings and discussions with the Trust IQI team, a GREATix reporting system was introduced into paediatrics. A pilot was initially carried out in one small area of paediatrics, a few changes were made and it was then introduced throughout the trust in paediatrics.

Nominees are issued with a certificate and a letter from head of service and clinical director.

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