

current practice. Main themes from the MDT focus group were that Paravit-CF liquid is colourless, taste free, odour free and can be mixed into food, all of which may aid compliance. Paravit-CF preparations also vegetarian friendly and comply with halal and kosher regulations. Unlike current practice, Paravit-CF does not offer flexibility in dosing of individual vitamins.

Conclusion Fat soluble vitamin supplementation using Paravit-CF offers several advantages over supplementation of individual vitamins. Paravit-CF offers vitamin supplementation at doses in line with the recommendations made by the CF Trust, is cheaper and reduces the medication burden for patients. Locally, the decision has been made to switch to Paravit-CF as first line vitamin supplementation in children with CF. Future work is planned to assess clinical efficacy and financial impact of the switch.

REFERENCE

1. Cystic Fibrosis Trust. Nutritional Management of Cystic Fibrosis. Second Edition. September 2016. Available from: <https://www.cysticfibrosis.org.uk/the-work-we-do/clinical-care/consensus-documents> (Accessed 10 July 2018)

P046 EVALUATING THE SAFETY OF DOSE BANDING PREMEDICATION (ATROPINE, SUXAMETHONIUM AND FENTANYL) FOR NEONATAL INTUBATION (PROJECT NIK)

Suzannah Hibberd, Alok Sharma, Marhamat Chavoshzadeh. *Southampton Children's Hospital*

10.1136/archdischild-2019-nppc.55

Background The process of prescribing and preparing premedication for intubation needs to be completed carefully to ensure the correct dose is prescribed and administered. Doses of atropine, suxamethonium and fentanyl were banded according to weight. The dose banding was implemented alongside pharmacy prepared neonatal intubation drug kits and a prescribing bundle on the neonatal electronic prescribing system, which automatically populates the doses according to the patient's weight.

Aim To evaluate the safety of dose banding neonatal premedication for intubation.

Methods A tool was developed to collect data including the patient's weight, gestation, if dose banding had been used and whether any adverse effects were experienced with emphasis on hypotension, bradycardia, chest wall rigidity and prolonged paralysis. Data was collected from January 2018 to July 2018.

Results Outcomes from 89 intubations using dose banding were reviewed. The corrected gestation of patients ($n = 63$) were 24+3 to 42+1 and the weight from 500 g to 4 kg. In 97.75% all three pre-medication drugs were given, the 2 cases that did not were due to rapid desaturations and the decision was made to intubate before all the medicines had been administered. All cases used the correct dose-banding for the medication. In all cases the fentanyl was administered over at least 1 minute with 7.87% receiving the fentanyl over more than 2 minutes. 95.5% of patients were normotensive within 30 minutes of intubation. Hypotension was observed in 2 cases >90 minutes post intubation. In two patients, a low mean blood pressure (BP) was observed prior to the decision to intubate and the premedication did not cause a further decrease in BP. No patients experienced bradycardia, chest wall rigidity or prolonged paralysis.

Conclusion This work has illustrated that dose-banding of intubation premedication is safe in this cohort of neonates and allows for successful intubation, whether the patient is 24 weeks or 42 weeks corrected gestational age. Chest wall rigidity may occur if fentanyl is administered too quickly. All patients received fentanyl over at least 1 minute, with the majority receiving over 1–2 minutes. The fentanyl dose is a very small volume, to ensure the dose was administered slowly, a flush was used to ensure that any remaining in the cannula was not bolused to the patient. Hypotension was seen in 2 patients >90 minutes after intubation which is unlikely to have been related to the use of neonatal intubation drugs. However this highlighted that not all patients are having BP monitoring 30 minutes post-intubation. An outcome has been to emphasise the need for this monitoring. Bradycardia and prolonged paralysis, two potentially prominent adverse effects, were not seen indicating that the atropine and suxamethonium doses were appropriate. A limitation of this study was that patients concurrent medication was not recorded. Data will continue to be collected to assess safety as this data set did not include babies in the <500 g banding. The next step will be to compare outcomes with patients that were intubated prior to the implementation of dose banding.

P047 EVALUATING THE IMPACT OF PRE-PREPARED NEONATAL INTUBATION PREMEDICATION KITS ON A LEVEL 3 NEONATAL UNIT (PROJECT NIK)

Suzannah Hibberd, Alok Sharma, Marhamat Chavoshzadeh. *Southampton Children's Hospital*

10.1136/archdischild-2019-nppc.56

Background In January 2018, neonatal intubation premedication kits containing atropine, suxamethonium and fentanyl were introduced alongside the implementation of dose-banding for these medicines according to patient's weight and regardless of the patient's gestation. A prescribing bundle on the electronic prescribing system was also created to automatically populate the doses based on the patient's weight. Seven kits are produced each week by the Pharmacy Technical Services Unit.

Aim To assess the staff perceived impact of pre-prepared intubation drug kits with associated dose-banding of the medication.

Methods Three months after the kits were implemented, a survey was sent to all nursing and medical staff to establish their thoughts on the intubation process before and after the introduction of pre-made intubation drug kits.

Results 78 staff responded, 45.5% were doctors and 54.5% were nursing staff. The response rate was 53.8%. 78% of respondents reported being part of a difficult intubation over the last 5 years. The main problems identified, prior to the implementation of the neonatal intubation drug kits, included the intubation process (51.5%), preparation and communication prior to intubation, (13.6%), time drawing up intubation drugs (10.6%) and the patient having a difficult airway (9%). 87.2% found the premade intubation kits very useful, none of the respondents thought the kits were not useful. Four themes were found irrespective of whether the respondent was a doctor or member of nursing staff. The themes were: they made the process easier; quicker; reduced risk of error and helped provide better patient care. When asked if any complications

had arisen, 4% reported that they had run out of kits and 2.7% said there was confusion when signing the kits out of the controlled drug (CD) register.

Three weeks out of 25 saw all the kits being used, average usage is 4 intubation kits per week. 97.4% reported the doses used were effective in sedating and paralysing the baby prior to intubation, 2.6% commented that they were somewhat effective but that in one occasion the paralysis had not been optimal, however they questioned whether the cannula had been functioning properly.

Conclusion The implementation of ready to use intubation drug kits has made the process of preparing for an intubation easier and quicker for all involved in the process. Having the dose banding set up on the electronic prescribing system has reduced the chance of prescribing errors and the pre-filled kits have reduced the chances of calculation errors during drug preparation. When the kits run out there are instructions in the guideline detailing how to make the required concentrations. As a result of this study standardised teaching videos were introduced from the beginning of July 18. Further simulations have been completed to ensure that all staff follow a standardised process. Next steps are to ensure that the documentation in the CD register includes all necessary information without any need for amendments. To overcome this, a stamp is being designed to use in the book each time a patient requires a kit, thereby providing a prompt for the nurses.

P048

THE EFFICIENCY OF AN ELECTRONIC PRESCRIBING SYSTEM ON CLINICIAN'S PRESCRIBING THROUGH THE PHARMACIST'S REVIEW FUNCTION

Yusuf Asif, Amrita Garcha. *Birmingham Women's and Children's NHS Foundation Trust*

10.1136/archdischild-2019-nppc.57

Aim To assess the efficiency of an electronic prescribing system (EPS) on clinician's prescribing through the implementation and use of the pharmacist's review function.

Introduction An electronic prescribing system, PICS, was launched in one ward, the liver unit, in April 2017. Many features were available on the EPS to support safer prescribing such as clinical decision support and prescribing guidance. One particular feature was the review note function, which was available for pharmacists, to attach a review note to a selected drug, highlighting an intervention, in order for the clinician to review. Once a review note was added, an eye icon appeared next to the selected drug on the drug chart. Once the prescription was reviewed, it could be signed off to signify the note was acknowledged and actioned. Implementing the review function, pharmacists are guiding safer prescribing of clinicians based on their clinical knowledge and expertise.

This is evidenced by the Royal College of Physicians who have highlighted how healthcare professionals should support each other on the safer use of medicines,¹ and The Royal Pharmaceutical Society, that stated 'the pharmacy team provides expertise and advice to support the safe and effective use of medicines by patients'.²

Methods An audit was completed, over a two-week period, to assess the type of interventions, the timeliness in which the intervention was noted once the prescription was added and the timeliness in which the clinicians reviewed and actioned a

prescription which had a review note attached to it by the pharmacist. Pharmacists annotated all interventions using the review function on PICS. The date and time when the prescription was added, the review note was added and the review note was signed off was recorded. The type of review note (intervention) and the change made, if made, was also noted. It is recognised that there will be a delay from when the pharmacist adds the review note and the clinician views it. For urgent reviews, the clinician was verbally notified.

Results 29 interventions were recorded over the two-week period, with the majority of interventions involving dosing issues (41%), followed by interventions regarding formulation (17%), drug and frequency (both 14%). Most review notes were added 24 hours (34%) after the prescription was added onto the patient's drug chart followed by those noted within an hour (21%) of the prescription being added. 25 prescriptions (86%) were amended upon the advice of the pharmacist whilst 4 prescriptions (14%) were not, due to a clinical requirement or if the patient had been discharged. 21 review notes (72%) did not require the pharmacist to verbally inform the clinician to amend the prescription.

Conclusion The audit highlighted the importance of the pharmacist's review function in highlighting interventions, whether this was related to dosing, formulation, frequency or drug. In addition, it highlighted the value of the pharmacist's interventions via the review function as most review notes were amended as per the pharmacists' advice and the majority did not require verbal notification to the prescriber, stressing the importance of the function.

REFERENCES

1. Supporting safe prescribing. Royal College of Physicians 2017.
2. Royal Pharmaceutical Society. *Professional standards for hospital pharmacy services: optimising patient outcomes from medicines*. London: RPS, 2014.

P049

PHARMACIST 5PS- POSITIVE PRAISE PRODUCES PLEASING PRESCRIBING

Aimee Cope, Adrian Plunkett, Alison Jones, Alice Chan, Katie Price, Rhian Isaac. *Birmingham Women and Children's NHS Foundation Trust*

10.1136/archdischild-2019-nppc.58

Aim Learning from Excellence (Lfe), a positive reporting initiative, has two main objectives: to capture and learn from episodes of excellent practice and boost morale through positive feedback. The PRAISE project,² tests the hypothesis that positive reporting and appreciative inquiry (AI) can be used as interventions to facilitate behavioural change and improvement in antimicrobial stewardship.

Methods Lfe was applied as a quality improvement (QI) intervention for antimicrobial use on PICU over a 12 month period: baseline (3 months), intervention (6 months) and post intervention (3 months) phases. 31 PICU charts were screened weekly by PICU research nurses, this included any documentation added by a pharmacist to improve antimicrobial stewardship. Positive reports (IR2) were generated for gold standard prescriptions and excellence in antimicrobial stewardship, followed up by AI. QI suggestions derived from AIs were applied to the antimicrobial stewardship programme of the unit e.g. RAG rating antibiotics to the prescription charts. PICU pharmacists recorded interventions relating to antimicrobials during the data collection period. Pharmacist interventions were split into proactive or reactive: proactive involving