**Abstracts**

**P044 CAN AN ELECTRONIC PRESCRIBING SYSTEM ENSURE CLEAR ANTICOAGULATION DISCHARGE COMMUNICATION?**

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**Aim** The National Patient Safety Agency (NPSA)\(^1\) identified heparin as a major cause of adverse events associated with adverse incidents, including some fatalities. By ensuring good communication, this should be associated with risk reduction.\(^1\)

The aim of this study was to ensure there is clear anticoagulation communication on discharge, from the paediatric intensive care unit (PICU) electronic prescribing system (Philips), to the paediatric cardiac high dependency unit and paediatric cardiac ward. To investigate whether the heparin regimen complies with the hospital’s anticoagulant guidelines and if there is any deviation; that this is clearly documented. To find out if there is an indication documented for the heparin regimen chosen and if there is a clear long term plan documented for the patient, after heparin cessation.

**Methods** A report was generated for all patients who were prescribed a heparin infusion on PICU, between 1st January 2018 and 30th June 2018, from the Philips system. All discharge summaries from the PICU Philips system were reviewed. Only paediatric cardiac patients were included that had a heparin infusion prescribed on discharge, all other discharge summaries were excluded from the study. Each discharge summary was reviewed in the anticoagulant section; for the heparin regimen chosen, whether it complies with the hospital’s anticoagulant guidelines and if there was any deviation whether this was documented. The indication documented of which heparin regimen was chosen and whether a clear long term plan was documented after heparin cessation; for example if the patient is to be transferred onto aspirin, clopidogrel, warfarin or enoxaparin.

**Results** 82 discharge summaries were reviewed over the 6 month period between 1st January 2018 and 30th June 2018; 16 were excluded as were not paediatric cardiac, leaving 66 paediatric cardiac discharge summaries that were reviewed. 45 out of 66 (68%) complied with the hospital’s heparin anticoagulation guidelines. Of the 32% that deviated from the protocol; only 33% (7 out of 21) had a reason documented. Only 50% (33) of the summaries reviewed had an indication for anticoagulation noted on the discharge summary and 91% of discharge summaries had a long term anticoagulant plan documented.

**Conclusion** The electronic prescribing system can help to ensure a clear anticoagulation communication as shown by 91% of the anticoagulation long term plan being clearly documented; making it a more seamless patient transfer. On the Philips PICU electronic prescribing system there is an anticoagulant section on the discharge summary that has 3 boxes that need to be completed; heparin regimen, indication and anticoagulation long term plan. However, despite these boxes; deviations from the anticoagulant protocol were poorly documented as highlighted by only 33% having the reason highlighted in the discharge summary, only 50% of the indications were documented. Despite having prompts for this information on the discharge summary, the medical staffs needs to be aware to complete this information, in order to reduce potential medication errors and risk.

**REFERENCE**


**P045 VALUE FROM YOUR VITAMINS – OPTIMISING VITAMIN SUPPLEMENTATION IN CHILDREN WITH CYSTIC FIBROSIS**

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**Aim** To optimise fat soluble vitamin supplementation in children with CF in a tertiary children’s hospital and primary care. To compare supplementation of individual vitamins and supplementation with a new multivitamin preparation against national guidelines, cost and patient acceptability.\(^1\)

**Methods** Comparison of current practice (supplementation of individual vitamins) with a new multi-vitamin preparation, Paravit-CF. Form and dose of each of the fat soluble vitamins was compared against national CF Trust guidelines for nutrition.\(^3\) Cost of treatment per day was compared. Patient acceptability was explored by comparing medication burden and with a focus group made up of representatives from the CF multi-disciplinary team (MDT) including, consultants, specialist nurses, dieticians and a pharmacist.

**Results** Current approach to vitamin supplementation is not in line with the CF Trust guidelines for nutrition. Supplementation with Paravit-CF preparations meets recommendations made in the CF Trust guidelines for nutrition for patients of all ages except for infants. Infants will receive vitamin A at higher doses than recommended. Cost of vitamin supplementation is reduced by approximately 50% when using Paravit-CF compared with current practice. Medication burden is reduced by more than 50% when using Paravit-CF compared with
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

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