

be downloaded onto a smartphone. There are many opportunities for future work including conducting an evaluation of the MMP in use over time and across different sectors, and to determine what patients actually record in the MMP.

## REFERENCES

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P037

### EVALUATING THE INTRODUCTION OF DOSE BANDED CEFOTAXIME USING PRE- FILLED SYRINGES, FOR EARLY ONSET SEPSIS ON A NEONATAL UNIT

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**Background** In December 2017, cefotaxime doses for treatment of early onset sepsis were banded according to weight. The dose-banding only applies to neonates <7 days old. The implementation of pre-filled syringes (PFS) supplied by the Pharmacy Technical Services Unit coincided with the introduction of cefotaxime dose-banding.

**Aim** To assess whether cefotaxime is prescribed according to the dose-banding guideline. To establish if batch numbers of PFS are reconciled on the electronic prescribing system (EPS). To determine whether introducing PFS has resulted in more neonates receiving the first dose of antibiotics within 1 hour of the decision to treat.

**Methods** An EPS report was generated for 2 groups of patients. Group A received cefotaxime from April to June 2018, group B received cefotaxime from September to November 2017, before dose-banding was introduced. Data collected included: weight; dose; time of prescribing and time of administration for the first dose; whether a PFS was used and if the batch number was reconciled electronically. Patients transferred into the unit were excluded as they had started their antibiotics prior to transfer.

**Results** 95.3% of group A, (n=85), received doses in accordance with the guideline, two doses were prescribed according to weight. Out of the 95.3% eligible to receive PFS, 91.4% of PFS were documented on the EPS. It was unknown whether PFS were used for the remaining patients. 90.5% of the PFS batch numbers were reconciled, 8.1% were not reconciled and 1.4% had incomplete records. 81.2% of group A received the first dose of antibiotics ≤60 minutes from the point of prescribing in comparison to 76.6% in group B (n=94). 58.8% of group A and 42.6% of group B had doses administered ≤30 minutes after prescribing. Both groups had 5 patients that did not receive their first dose until >2 hours after prescribing.

**Conclusion** The majority of prescribers are using the dose-banding guideline. 91.4% of doses have been administered using PFS, thereby reducing nursing time used for IV drug preparation. In 8.6% it could not be determined whether a PFS was used although prescription templates had been used. The template includes a mandatory box to say if a PFS has been used, nurses cannot sign the drug administration if it is empty. An outcome from this study is that this discrepancy will be investigated by the electronic prescribing team. Nurses are recording batch numbers onto the EPS in 90.5% of cases.

Nurses will be reminded to reconcile batch numbers and making it a mandatory requirement on the EPS will be investigated. Having PFS available has led to more patients receiving their dose within 30 minutes and slightly more receiving their doses within 60 minutes. However similar numbers are still receiving their doses >60 minutes after prescribing. Next steps will be to examine cases where antibiotics are delayed and identify causes. A limitation of this study is that it does not take into account how long it takes the prescriber to write the prescription after making the decision to treat.

## REFERENCE

1. National Institute for Health and Clinical Excellence. (2012) Neonatal Infection (early onset): antibiotics for prevention and treatment. NICE Guideline (CG149)

P038

### HAS THE INTRODUCTION OF PLASMA- LYTE AS THE ROUTINE IV MAINTENANCE FLUID THERAPY REDUCED THE RISK OF IATROGENIC METABOLIC DISTURBANCES

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**Aim** Prior to July 2017, the hospital Trust had over twelve different IV fluid choices and there was no 'standard' fluid. This often led to confusion with prescribers and stock issues. The Trust made the decision to switch their routine maintenance fluid choice to Plasma-Lyte in July 2017. This was to simplify, standardise and streamline IV fluid choice, reduce the risk of iatrogenic metabolic disturbances, especially hyponatraemia associated with the current IV fluid use and to bring the Trust up to date with NICE guidelines.<sup>1</sup> An audit was carried out to investigate whether using Plasma-Lyte as the standard maintenance fluid has reduced the risk of hyponatraemia and hyperchloraemia in patients prescribed maintenance fluids. The objectives were to identify patients prescribed maintenance fluids, check their electrolytes and check that the new IV fluid guideline had been followed appropriately.

**Methods** Data on patients receiving IV fluids were collected twice a week for 6 weeks, beginning in the first week of December 2017. All ward pharmacists working during the data collection period received guidance on the method of data collection. Once the appropriate details were collected on each chosen day, the forms were passed onto the investigator to process. The electronic prescribing system at the hospital trust enables access to all patients' blood results and medical notes, therefore, a separate data collection form could be completed with anonymised data retrospectively following the completion of the data collection period.

**Results** 145 patients were identified as having IV fluid prescribed, 68 of these had been prescribed Plasma-Lyte according to the Trust guidelines, however guidelines were only adhered to 68% of the time, with the other 32% comprising of patients either not having the correct fluid prescribed or patients having the correct fluid prescribed but not having the necessary monitoring required when receiving IV maintenance fluids. There was a marked reduction of patients experiencing hyponatraemia and hyperchloraemia since the introduction of Plasma-Lyte. Only 3% of patients audited experienced hyponatraemia when receiving Plasma-Lyte, compared to 14% from a previous audit of other maintenance fluids.

**Conclusion** The results shown are not surprising when the actual composition of Plasma-Lyte is evaluated. For example; Plasma-Lyte ± glucose contains 140 mmol/L of sodium and