two sessions). 36 medicines were switched, generating £46,500 per year recurrent savings.

Feedback was good. Staff liked the opportunity for positive interaction with children and families appreciated the ease of obtaining tablet medications versus liquids. We subsequently trained other teams, including our research team who were recruiting for a study in which swallowing tablets is an inclusion criteria.

Conclusions In a short timeframe it is possible to embed a system to convert children to tablet medication, improving patient experience and realising considerable cost savings. It requires staff training and cultural change. Pill swallowing is an easy skill to teach and learn and children as young as five can successfully swallow pills. We automatically teach inhaler technique so equally we should teach CYP how to swallow tablets as a skill for life. We would encourage all units to set up pill swallowing training.

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P01

AN EVALUATION OF VANCOMYCIN THERAPY IN PAEDIATRIC PATIENTS POST GUIDELINE CHANGE

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Aim To evaluate the prescribed dose of vancomycin as per local guideline and review the achieved therapeutic drug levels. **Method** Retrospective data was collected from paediatric inpatients that were prescribed vancomycin for more than 24 hours during the audit period. Data was obtained from the Trust's electronic prescribing system, LastWord. Measured standards included initial vancomycin dose, dose prescribed for renal impairment, time to first trough level and any required dose adjustments as per local guidance. The dose bands for each age group were¹; birth - 6 months 15 mg/kg 8 hourly; >6 months -12 months 20 mg/kg 8 hourly; >12 months - 12 years 25 mg/kg 8 hourly; >12 years 20 mg/kg 8 hourly. The number of patients achieving therapeutic vancomycin trough levels was recorded. Safety data was collected, including reported adverse effects, infusion related reactions and renal impairment. Renal impairment was defined as an increase in creatinine by 50%. Data was collected from April 2018 for 6 months. Relevant data with regards to patient demographics, dosing and drug levels were collected and analysed using Microsoft Excel.

Results 12 patients received 15 doses of vancomycin over 6 months. 67% of initial vancomycin doses were prescribed as per local guideline, 60% of therapeutic trough levels were taken at the right time and 71% of patients that were prescribed the correct dose and had levels taken at the right time achieved therapeutic trough levels. 12 patients required dose adjustments. One patient with renal impairment was not prescribed the recommended dose as per local guidance. One patient reported an infusion related reaction, which was overcome by increasing the infusion time. Two patients who received therapy for >7 days accumulated vancomycin and

recorded high trough levels, with no adverse events. One patient reported an increase in creatinine by 50% over the treatment period.

Conclusions Vancomycin has the potential to induce nephrotoxicity and ototoxicity when consistently at high serum drug levels. Due to its narrow therapeutic index, drug levels should be monitored to ensure the drug does not accumulate. The licensed dose and dose listed in the BNF for Children^{2,3} has historically under dosed patients at our trust, leading to the risk of ineffective therapy and bacterial resistance. It is unclear from research what the optimal dose is for paediatric patients.

More research is needed to determine the correct paediatric dose of vancomycin. Higher doses than currently recommended as per licence resulted in three quarters of patients achieving therapeutic levels, however 12 patients still required dose adjustment. No patients suffered irreversible adverse effects or toxicity, suggesting that higher doses are safe to use in the paediatric population. Further education is required for those involved in the prescribing, administering and monitoring of Vancomycin in paediatric patients to ensure its safe use. Additional monitoring is required for those receiving higher doses >7 days to prevent drug accumulation, alternatively a loading dose followed by lower maintenance dose may be a more suitable dosing regimen.

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P02

METHODS USED WHEN PREPARING NON-STANDARD GLUCOSE CONCENTRATIONS: A SURVEY OF UK NEONATAL UNITS

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Aims Administering intravenous (IV) glucose is common practice on the Neonatal Intensive Care Unit (NICU). The varying metabolic demands of patients in this environment coupled with the need for fluid restriction means the limited range of pre-made commercial products is not appropriate in every case. This can necessitate bedside preparation of glucose solutions, usually through addition of concentrated 50% glucose solution to a commercially available bag. Most IV glucose bags available contain an overage, i.e. they are filled to a greater volume than stated on the bag. Overages are quoted as ranges rather than absolute values, and vary according to manufacturer. This may lead to uncertainty as to the exact amount of 50% glucose to add in order to create the intended final concentration.

We aimed to determine the availability of guidelines to facilitate the safe, accurate preparation of non-standard glucose concentrations in NICUs across the UK, and to ascertain the range of methodologies in use.

Methods NICUs throughout the UK were identified and contacted via telephone. The following questions were asked:

1. Do you ever prepare non-standard glucose concentrations, for example 12.5%, 15% or 25%?