

**Method** The pharmacist would attend the consultant-led morning handover or would liaise with the nurse in charge on the ward to establish discharges and transfers for that day or over the weekend if on a Friday. The most urgent discharges and any complex patients were prioritised. The EPR system would be used to generate the EDLs, transcribe the medicines for discharge and add any other relevant written information. Any medication related issues would be clarified with the medical team. The prescription would be handed over to the medical team to be reviewed and signed. This would then be dispensed and checked by the pharmacy team. The patient/parent or carer would be counselled on their medications. Data was collected from November 2018 – March 2019, this included time informed about discharge, time EDL started, time EDL printed and time EDL completed. Other data collected included if any additional written information was provided to the GP and if any amendments were required after the doctor had reviewed the prescription. The data was inputted into an Excel spreadsheet and was compared against August – October 2018.

**Results** 152 discharge prescriptions were included in the service. The data was compared to the data from August – October 2018 which showed more than double of the prescriptions were completed in the morning between 9am-12noon (compared to 12noon-5.30pm) since the service started. Less prescription needed amendments at the point of screening and more prescriptions included additional medication related information. The quality of the prescriptions had improved and completing prescriptions earlier meant timely discharges, improved bed utilisation and improved patient quality. Positive feedback was given by patients, doctors and nurses as well as the rest of the ward teams.

**Conclusion** Communication has improved between the hospital and community care, as well as patient satisfaction and bed availability. A future development would be to introduce prescribing pharmacists within medical teams to streamline the discharge prescription process further, freeing up medical time and increasing the focus on medicines optimisation for all patients.

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#### IMPACT OF HAVING A PAEDIATRIC MEDICINES MANAGEMENT PHARMACY TECHNICIAN IN A DISTRICT GENERAL HOSPITAL

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**Aim** Patients are more likely to experience a ‘medicines-related safety incident’ when medicines reconciliation happens more than 24 hours after admission to an acute setting,<sup>1</sup> according to the National Institute for Health and Care Excellence (NICE). The study aimed to assess the impact on medicine reconciliations following the introduction of a dedicated Paediatric Medicines Management Pharmacy Technician to the paediatric wards at a District General Hospital (DGH).

**Methods** Data has been routinely collected by the pharmacy department over of a number of years showing the time of medicines reconciliations compared with the time of hospital admission. This data shows the number of medicine reconciliations that were completed within 24 hours of hospital admission and the number that were not completed within 24 hours. The data is routinely collected on the Thursday of the

first full week of every month. All patients that were admitted to the paediatric wards were included in this data. The service is only funded Monday to Friday through the Child Health Department of the DGH. This data excludes neonates admitted to the Neonatal Intensive Care Unit. Data was collected from 83 paediatric patients in March/April/May 2017 and 78 paediatric patients in March/April/May 2019.

**Results** Data collected for the paediatric patients over March/April/May 2017 showed that around 21.7% of all paediatric patients admitted to the wards had a completed medicines reconciliation within 24 hours. The data collected over the same period in 2019 showed that 85% paediatric patients admitted to the wards had a completed medicines reconciliation within 24 hours.

**Conclusion** This study was useful in demonstrating the effectiveness of introducing a dedicated Paediatric Medicine Management Pharmacy Technician to the paediatric wards in a DGH. It showed that the proportion of medicine reconciliations within 24 hours prior to the change was very low, but after the change it was very high with nearly all patients having a completed medicines reconciliation within 24 hours. Prior to the introduction of a dedicated Paediatric Medicines Management Pharmacy Technician, the paediatric wards at this DGH were not meeting the standards set by NICE regarding medicines reconciliations within 24 hours of being admitted to an acute setting. After the introduction the paediatric wards were meeting these standards. By meeting NICE guideline QS120 Medicines Optimisation, the DGH has reduced the likelihood of medicines-related safety incidents. With the introduction of a dedicated Paediatric Medicines Management Pharmacy Technician there have been many other benefits. These include counselling to parents/children on the use of their medicines; checking of patients’ own medicines to see if they are still fit for purpose; advice to parents about unlicensed medicines and why they are used; where to obtain further supplies when new medicines have been started; and assisting parents and GP surgeries with any supply issues.

#### REFERENCE

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#### GENTAMICIN-RELATED INCIDENTS IN NEONATES BEFORE AND AFTER THE INTRODUCTION OF ELECTRONIC PRESCRIBING AND MEDICINES ADMINISTRATION (EPMA)

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**Aim** Gentamicin is widely used to treat early neonatal sepsis as part of a regimen recommended by NICE.<sup>1</sup> However, it is frequently implicated in clinical incidents relating to errors in prescribing and administration. This project aimed to evaluate whether the introduction of ePMA had an effect on the frequency and type of incidents that occur relating to the use of gentamicin in neonates.

**Method** A paper gentamicin prescription chart was used from July 2013 until the implementation of ePMA on 28th January 2019. Using ePMA, prescribers were encouraged to use a pre-set template for ‘neonatal early onset sepsis’,

listing benzylpenicillin and gentamicin (in mg/kg). Prescribers had to input the date and time of the first dose, and the system would automatically calculate the dose and time of subsequent administrations. A visual cue was used by the system to signal to nurses that a dose was due. Data was extracted from our local incident reporting system between the periods of 1st July 2013 to 27th January 2019 ('pre-ePMA') and 28th January 2019 to 30th June 2019 ('post-ePMA'), where 'gentamicin' was mentioned in the incident description under the 'neonates' specialty. The data was examined, categorised into 'prescribing-related', 'administration-related', or 'other' and within the former two, grouped into identified themes.

**Results** Pre-ePMA 55 incidents were reported (mean=9/year, range 6–16/year), of which 41 (75%) were deemed to have the potential to cause harm. 27 (49%) incidents were prescribing-related and 19 (35%) were administration-related. The rest of the incidents were classed as 'other' eg. mislabelling blood samples. The most common prescribing-related incidents were incorrect frequency intervals, accidental omission, incorrect dose, or failing to meet prescribing standards. The most common administration-related incidents were doses being given too early, too late or missed. Four incidents were reported in the 5-month period post-ePMA (2 prescribing-related, 1 administration-related, 1 other). All prescribing- and administration-related incidents were deemed to have the potential to cause harm. One incident was due to incorrect frequency (first dose was given before arrival and prescriber had to manually calculate interval), one incident related to unintended doses prescribed and given (only benzylpenicillin was indicated), and one administration incident from poor documentation (dose given but not signed for). Compared with the same 5-month period in 2018 (pre-EPMA), 1 more incident had been reported this year compared to the previous year where only 3 incidents were reported.

**Conclusion** The introduction of ePMA may not reduce the number of reported incidents relating to gentamicin in neonates. A longer period of study is needed to evaluate the effects of transitioning from paper to ePMA. Our results suggest that ePMA can eliminate or reduce the risk of some types of errors, but can also make no difference to others, and can create new types of system-related errors, which can still have the potential to cause harm. This is consistent with the outcomes of a similar study in 2016 in another centre.<sup>2</sup>

## REFERENCES

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## P29 THE PREVENTATIVE MANAGEMENT OF MIGRAINE HEADACHES IN PAEDIATRICS

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**Aim** To determine the optimal preventative treatment option for paediatric migraine

**Design** A retrospective method. A review of 100 paediatric patients who attended outpatient clinics and their clinical outcomes evaluated at day 0, and at their next outpatient

appointment (which is approximately 3 months after their first review). Their treatment was analysed to determine if they have remained on their migraine prophylaxis or changed to a different option.

**Setting** Children outpatient setting in a District General Hospital.

**Participants** 100 paediatric patients aged below 18 years of age.

**Intervention** Patients aged below 18 years of age who have a documented diagnosis of migraine. This excluded abdominal migraine.

**Main Outcome Measures** To identify: which classes of drugs are being used for migraine prophylaxis, if there is a drug being used in preference to other drugs, how many preventative treatment options are tried before a preventative treatment is successful, if appropriate dosing regimens are being used for preventative treatment options, the common side effects (if any) of the drugs used in the management of migraine prophylaxis and if a different class of drug is being used for children under 12 years of age and over 12 years of age.

**Main Results** Propranolol, topiramate, pizotifen, amitriptyline and gabapentin were medication used as initial treatment for paediatric migraine prophylaxis. Pizotifen was the most commonly used medication (n=71) and had the overall highest positive response rate of 76%. Topiramate, pizotifen and amitriptyline were noted to have caused side effects and prevent the subjects from continuing that course of prophylactic treatment. Age is a clinical factor which can influence the decision to start therapy. With a child's advancing age, the features of childhood migraine change and therefore different medication may respond to the changing condition. It is evident from this research, pizotifen is used for children under the age of 12 years. However the true reason behind this is unknown. This could be due to the medication licensing or the side effect profile. Further trials are needed to review the demanding consideration on migraine in children of different ages. The BNF-C gives dosing advice on three preventative treatments; pizotifen, topiramate and propranolol. There was overall good compliance with dosing as per the BNFC; 91% in the pizotifen group, 100% in the topiramate group and 82% compliance in the propranolol group. In the BNF-C, for amitriptyline and gabapentin there is no dosing advice for migraine prophylaxis. Therefore, there was no dosing regimens to compare to and achieved 0% compliance with the BNF-C.

**Conclusion** This research has found pizotifen to be first line treatment for the prevention of migraines. Numerous medication have been identified as potentially preventing migraine but these have either not progressed to fruition or failed to achieve the expected outcomes. Further medication studies are needed to examine their effectiveness for preventing paediatric migraine.

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