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.[2]

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P29 THE PREVENTATIVE MANAGEMENT OF MIGRAINE HEADACHES IN PAEDIATRICS

Judith Martin*. *Royal Hospital Belfast Sick Children*

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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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