2017/18 to 2018/19; approximately £9,300 and £57,000 respectively. One patient was given a higher dose over a shorter period but the total dose for each course was the same. The shortened regimen meant that doses were rounded to the nearest vial size, which reduced wastage. The demand for IVIG is increasing and due to its limited availability and high cost, it is important that IVIG is only given to patients that meet the specified requirements.

Recommendations
- Ensure patients are only supplied with IVIG if the above standards are met
- Neurology pharmacist to re-audit data annually to ensure that IVIG is being given according to guidelines

REFERENCES

P54 MAPPING THE PREVALENCE AND NATURE OF DRUG RELATED PROBLEMS AMONG HOSPITALISED CHILDREN IN THE UNITED KINGDOM: A SYSTEMATIC REVIEW

Aim
Problems with medication account for 10–20% of all adverse healthcare events in the NHS, costing between £200–400 million per year.1 Children are more likely to experience medication related harm.2 International reviews of the prevalence of drug-related problems are over ten years old.3 There is a need for a focussed and critical review of the prevalence and nature of drug-related problems in hospitalised children in the UK to support the development and targeting of interventions to improve medication safety.4

Methods
Nine electronic databases (Medline, Embase, CINAHL, PsychInfo, IPA, Scopus, HMI, BNI, The Cochrane library and clinical trial databases) were searched from January 1999 to September 2018. Studies were included if they were based in the UK, reported on the frequency of adverse drug reactions (ADRs), adverse drug events (ADEs) or medication errors (MEs) affecting hospitalised children, and quality appraisal of the studies was conducted.

Results
26 studies were included; none of which specifically reported on the prevalence of ADEs. Three ADR studies reported a median prevalence of 28.3% of patients (IQR 13); >70% of reactions warranted withdrawal of medication. Sixteen studies reported on prescribing errors and the median prescribing error rate in all paediatric contexts was 10.7% of prescriptions (IQR 6) Seven studies explored prescribing errors in PICU and the prevalence was twice that in non-ICU areas (11.1% prescriptions; IQR 2.9 versus 6.5% prescriptions; IQR 4.3). The median rate of dose prescribing errors was 11.1% doses prescribed (IQR 10.6). Four studies reported administration errors of which three used consistent methods. Across these three studies, a median prevalence of 12.4% of administrations (IQR 7.3) was found. Administration technique errors represented 53% of these errors (IQR 14.7). Errors detected during medicines reconciliation at hospital admission affected 43% of patients, 33% (IQR 13) of prescribed medication with 70.3% (IQR 14) classified as potentially harmful. Medication errors detected during reconciliation on discharge from hospital affected 33% of patients and 19.7% of medicines, with 22% considered potentially harmful. No studies examined the prevalence of monitoring or dispensing errors.

Conclusions
Children are commonly affected by drug-related problems throughout their hospital journey. Given the high prevalence and risk of patient harm, there is an urgent need for outcome-focused research on preventable ADEs in paediatric hospital settings in the UK. A deeper understanding of medication processes for children in hospital from a systems and theoretical perspective will also support the development and targeting of effective interventions to improve patient safety.

REFERENCES

P55 IMMUNOSUPPRESSION IN THE FIRST SIX WEEKS FOLLOWING PAEDIATRIC CARDIAC TRANSPLANT

Karen Thomson*, Zdenka Reinhardt. Freeman Hospital, Newcastle

Aim
The aim of this audit was to establish whether immunosuppression was being prescribed correctly and whether target levels were being reached during the first six weeks post-transplant.

Method
The standards were discussed and agreed, due to an absence of standardised local or national written protocols, with the lead paediatric cardiothoracic transplant consultant and a specialist transplant liaison nurse. The paediatric transplant database provided a list of patients between October 2016 and July 2018, from which paediatric cardiac transplant patients were included in this audit. All data were collected retrospectively, for the first six weeks post-transplant, from patient’s electronic records.

Results
Twenty-three patients were included in the audit; fifteen males and eight females and the mean age was 6 years old. The standards for the timing and dosing of the first ciclosporin dose were met for 87% and 78% of patients respectively. Six patients (26%) had a ciclosporin level within the target range by day 4 post-transplant, for the remaining seventeen patients the average was day 9 post-transplant. The mean levels remained within this range or slightly above after day 9. Azathioprine or mycophenolate was started within 7 days of transplant in 6 patients (23%). Four patients (17%) had documented episodes of rejection; in one patient all other standards were met and in the other three only one additional standard was not met. Nineteen patients (83%) did not have a documented episode of rejection.