

19% of all errors were dosing errors. The intention of this study was to apply dose-banding to selected medications prescribed in the paediatric A&E to evaluate its usefulness in reducing prescribing errors.

A dose-banding schedule was created using BNFC 2013–2014, in agreement with a paediatric A&E consultant and a senior paediatric pharmacist. This included analgesics and antibiotics most commonly prescribed in the paediatric A&E department (paracetamol, ibuprofen, morphine, amoxicillin, co-amoxiclav, clarithromycin, erythromycin, azithromycin). A standard operating procedure was written, training was provided and a one week run-in period was implemented to ensure all A&E staff were aware of the dose-banding schedule. All paediatric A&E prescriptions written over two consecutive weeks were included; this was achieved by asking nursing staff to photocopy every prescription issued, morning and night, during this time period. All prescriptions were screened retrospectively for prescribing errors using a streamlined version of a validated data collection tool. Prescriptions written under Patient Group Directions (PGDs) were exempted from dose-banding, but were included in the analysis.

Results A total of 590 medication orders (MOs) from 428 prescriptions were screened for different types of prescribing errors over two consecutive weeks. Of these, 450 (76.3%) were doctor MOs and 140 (23.7%) were PGD MOs. A total of 225 (38.1%) MOs contained a prescribing error, giving an overall prescribing error rate of 37.9%. Allergy status was missing in 36 (6.1%), date of birth (DOB) was missing in 98 (16.6%) and the patient name was missing in 88 (14.9%) MOs. Dosing errors occurred in 38 (6.4%) MOs.

Of the 450 MOs written by doctors, 194 followed the dose banding schedule and none of these resulted in an incorrect dose; 114 MOs were not written according to the dose bands – and 22 of these had an incorrect dose; 142 MOs were written for drugs that were not included in the dose-banding schedule, and 2 of these had an incorrect dose. Of the 140 MOs from PGDs, 14 had an incorrect dose.

Conclusion Overall the dose-error rate for MOs written by doctors was 24 out of 256 (9.4%) for non-dose banded drugs versus 0% for dose-banded drugs. The error rate for PGD MOs was 10%. The results suggest that dose-banding may be a useful strategy to help reduce prescribing errors in paediatrics.

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CAN DOSE-BANDING HELP TO REDUCE PRESCRIBING ERRORS IN A PAEDIATRIC ACCIDENT AND EMERGENCY (A&E) DEPARTMENT?

Asma Al-Turkait,¹ Farrah Khan². ¹UCL School of Pharmacy London; ²Royal London Hospital, Barts Health NHS Trust

10.1136/archdischild-2015-308634.32

Aim To evaluate the usefulness of dose-banding in reducing prescribing errors in a paediatric A & E department

Method Dose banding is a process where the dose is determined within defined ranges or bands, based on the age or weight of the child depending on the medication. Dose bands are often used in prescribing cytotoxic agents through an agreement between pharmacists and clinicians. A previous audit conducted in paediatric A&E over one week identified a 28.7% prescribing error rate;