considering the available drug products for administration or the therapeutic range of the drug. This can lead to lack of consistency in dosing and drug administration errors, which affects many children of all ages treated with medicines. There are no established standards for dose-ranging in national or international healthcare systems. This project aimed to establish dose-ranging limits for paediatric medicines, to be used for prescribing and administering accurate, safe, and effective drug doses.

Method A list of the most common oral prescribed medications was established from the medication dispensing database of four hospitals in the UK. Then the evidence for safe and effective dose ranges for each drug on the list identified from paediatric reference books, Summary of Product Characteristics (SPC) and published literature. After using these data to develop dose bands based on body weight, we used a Delphi process to achieve healthcare professionals’ consensus about the suggested dose bands for each drug on the list.

Results A total of 45 drugs for 45 specific indications were included. Four categories of dose-ranging limits were established: drugs with 2-weight bands; 3-weight bands; 4-weight bands and 5-weight bands. Overall, for 53.3% (24/45) of the included drug, all their suggested dose-ranging limits reached consensus after two rounds of Delphi. For 92% (22/24) of them, consensus was achieved on all their suggested bands in the first round. Only for 2 drugs the agreement was achieved after the second round. For the drugs included in 2-weight band and 3-weight band categories, all their suggested dose-ranging limits received total consensus after round 1 of the Delphi process. For 9 drugs included in the 4-weight bands category, the agreement was achieved only on either one or two of their suggested dose bands. For 12 drugs, no agreement was reached on any of their suggested bands.

Conclusion The study results provide healthcare professionals with a set of recommended dose-ranging limits for commonly prescribed drugs in the UK. These recommended limits could establish the basis for change in clinical practice to improve health care provided for children.

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REFERENCE

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EXTENT OF PAEDIATRIC EXPOSURE TO PHARMACEUTICAL EXCIPIENTS: AN EXPLORATORY STUDY

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To determine the level of compliance to age and critical drug monitoring parameters required for patients receiving carboplatin doses with therapeutic pharmacokinetic drug monitoring.


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