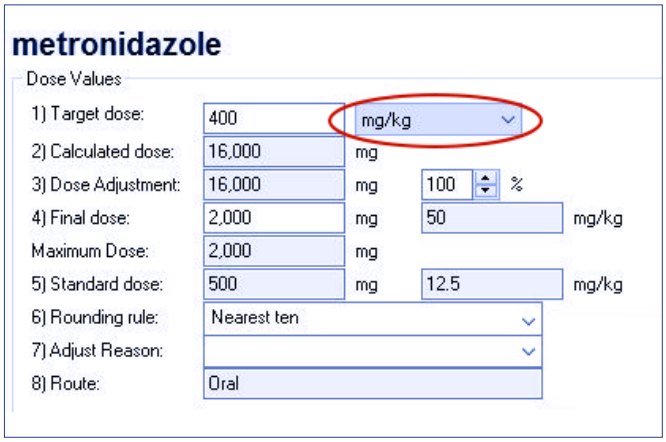
e-Medication Safety

HEALTH INNOVATION SERIES
Evidence based recommendations to improve care delivery and outcomes

Caution: editing within a dose calculator can result in large dose errors

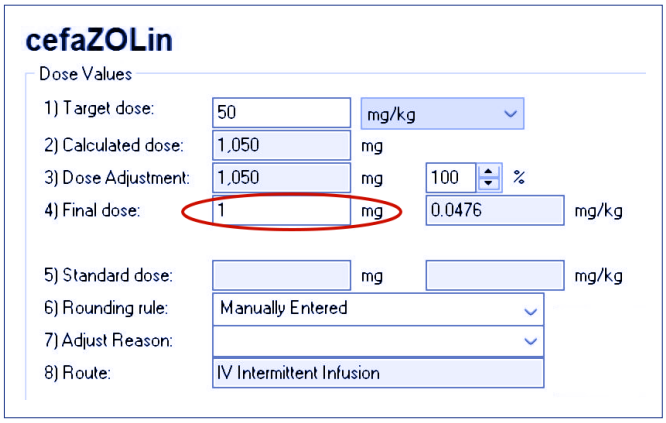
Dose calculators are helpful tools for prescribing, particularly in the paediatric setting. However, errors can occur when prescribers edit fields incorrectly within a dose calculator.

Example 1: Metronidazole for a paediatric patient



In this first example, the dose calculator provides a total metronidazole dose of 500mg (12.5mg/kg for a 40kg child). The prescriber attempts to change the dose to 400mg (one tablet) by editing the target dose field; however fails to note the mg/kg units, creating a final calculated dose of 16,000mg. The dose calculator prevents this dose being prescribed due to a dose limit of 2,000mg, however this was still higher than the intended dose.

Example 2: Cefazolin for a paediatric patient



In this second example, the prescriber edits the final dose down from 1,050mg to 1g, however does not take into account that the units were recorded in mg, thus creating a 1,000-fold underdose.

USER TIP

Exercise caution when editing within a dose calculator. Check the final total dose and dose units before signing the prescription.

Suggested citation: Merchant A, Raban MZ, Westbrook JI. Caution: editing within a dose calculator can result in large dose errors. Health Innovation Series e-Medication Safety Issue 2 2022. Sydney: Macquarie University; 2022. https://doi.org/10.25949/MWNH-P929

Prepared by: Australian Institute of Health Innovation, Centre for Health Systems and Safety Research
Macquarie University NSW 2109 Australia E: chssr@mq.edu.au

MACQUARIE University