

## 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

metronidazole			
Dose Values			
1) Target dose:	400	mg/kg	
2) Calculated dose:	16,000	mg	
3) Dose Adjustment:	16,000	mg	100 %
4) Final dose:	2,000	mg	50 mg/kg
Maximum Dose:	2,000	mg	
5) Standard dose:	500	mg	12.5 mg/kg
6) Rounding rule:	Nearest ten		
7) Adjust Reason:			
8) Route:	Oral		

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

cefaZOLin			
Dose Values			
1) Target dose:	50	mg/kg	
2) Calculated dose:	1,050	mg	
3) Dose Adjustment:	1,050	mg	100 %
4) Final dose:	1	mg	0.0476 mg/kg
5) Standard dose:		mg	
6) Rounding rule:	Manually Entered		
7) Adjust Reason:			
8) Route:	IV Intermittent Infusion		

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.

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