




## HEALTH INNOVATION SERIES

### Evidence based recommendations to improve care delivery and outcomes

## Pre-operative medication frequencies matter

Electronic medication systems can display multiple frequency options when prescribing. Pre-operative medications (e.g. midazolam, ketamine, paracetamol) are often administered at the same time prior to a procedure, and there may be medications to be administered together after the procedure. Use of different frequencies for each medication can result in the medication orders appearing in different sections of the electronic medication administration record and having different suggested administration times (see example). This can lead to a medication not being administered at the required time or being omitted.

### Example: Pre-operative orders for ketamine and midazolam displayed on different sections of the administration record

Medications	26/05/2022 11:00	26/05/2022 13:50
<b>Scheduled</b>		
 <b>ketamine</b> 40 mg, Oral, ONCE, Stop Date: 26-May-22 11:00:00, Anaesthetic premedication, See order comments For anaesthetics, pain team and ICU only. For oral administration... ketamine	40 mg Not given within 5 days.	
 <b>cefaLEXin</b> 130 mg, Oral, 6 hourly, Surgical prophylaxis(<24 hours duration) Target Dose: cefaLEXin 6.25 mg/kg (Actual Dose: 6.5 mg/kg) 26/... cefaLEXin (cephaLEXin)	130 mg Not given within 5 days.	
<b>Unscheduled</b>		
 <b>midazolam</b> 10 mg, Oral, PRE-OP, Premedication Use injection in plastic amps for oral administration Target Dose... midazolam		10 mg Not given within 5 days.

- Pre-operative ketamine and midazolam are to be administered together.
- The ketamine order has the frequency 'ONCE'.
- The midazolam order has a frequency of 'PRE-OP'.
- As a result, the two orders appear in different sections of the record, with different administration time prompts.
- Similar issues may occur with the use of the frequencies 'POST-OP' vs 'ONCE'.

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**Disclaimer:** These recommendations are based on issues identified during various programs of research undertaken by Macquarie University. They are not intended to be an exhaustive list and should be considered by individual care settings for appropriateness prior to implementation. A more detailed review of the issue and impact may also be warranted. The content of this document is intended for information purposes only.

