

## 7.1 Percentage of as required (PRN) psychotropic medication orders with documented indication, dose (or dose range), frequency and maximum daily dose specified

### Purpose

This indicator assesses the effectiveness of processes that encourage clear and unambiguous communication of medication orders.

### Background and evidence

Use of medicines on an as required (PRN) basis is essential for managing acute psychiatric inpatient symptoms and behaviours. However, the decision on when to administer a PRN medicine, what to administer and how much to administer usually relies on the judgment of an individual nurse.<sup>1,2</sup> These decisions are often based upon previous experiences and levels of knowledge.<sup>2-4</sup> In order to ensure that PRN medicines are administered safely, appropriately and as intended, it is important that the prescriber specify the indication for medicine use, the dose to be administered (or a dose range), the minimum time period between PRN doses and the maximum total daily dose (maximum dose in 24 hours) on the medication chart (National Inpatient Medication Chart or electronic medication chart). The National Inpatient Medication Chart (NIMC) has been designed to encourage completion of this information.<sup>5</sup>

### Key definitions

**As required (PRN) psychotropic medicines** refers to any medicine exerting a psychotropic effect (i.e. affecting function, behaviour or experience of the mind<sup>6</sup>), which is prescribed on medication charts and intended to be administered on an as needed basis. Psychotropic medicines most frequently used as required in inpatient mental health settings include anxiolytics (e.g. benzodiazepines), antipsychotics, hypnotics, sedatives and anticholinergics.

**Documented indication** refers to completion of the indication box of the PRN section of the medication chart to communicate the intended purpose for which the medicine may be administered to the patient.

**Dose (or dose range)** refers to completion of the dose box of the PRN section of the medication chart to indicate the dose that may be administered to the patient on any one occasion. This may be a specified dose or a dose range with a specified minimum and maximum dose.

For paediatric patients, the “dose calculation” box (e.g. mg/kg or mg/m<sup>2</sup> per dose in the paediatric NIMC) should be completed to indicate the basis for the calculated dose. This dose should be determined with reference to the paediatric pharmacopoeia endorsed for local use by the drug and therapeutics committee, (also see QUM Indicator 3.4).

**Frequency** refers to the completion of the hourly frequency box of the medication chart, specifying the minimum amount of time permitted in hours between each administration of the PRN medicine. Frequency descriptions such as bd, tds or qid are not acceptable.

**Maximum daily dose** refers to completion of the “max PRN dose/24 hrs” box of the PRN section of the medication chart to indicate the maximum PRN dose of the medicine that may be administered in a 24-hour period. Compliance with local policy regarding PRN prescribing should be incorporated into the audit.

## Data collection for local use

Please refer to the section *Using the National Quality Use of Medicines Indicators for Australian Hospitals* for guidance on sample selection, sample size, measurement frequency and other considerations.

**Inclusion criteria:** All adult, adolescent and paediatric patients admitted to a designated inpatient mental health bed.

**Exclusion criteria:** Nil.

**Recommended data sources:** Medication charts.

The data collection tool for QUM Indicator 7.1 assists data collection and indicator calculation.

## Data collection for inter-hospital comparison

This indicator may be suitable for inter-hospital comparison. In this case, definitions, sampling methods and guidelines for audit and reporting need to be agreed in advance in consultation with the coordinating agency.

## Indicator Calculation

$$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$$

**Numerator** = Number of as required psychotropic medication orders with documented indication, dose (including basis for dose calculation for paediatric patients), frequency and maximum daily dose specified

**Denominator** = Number of as required psychotropic medication orders in sample

## Limitations and interpretation

It is recommended that the specific psychotropic medicines to be included in the audit be agreed at each hospital.

This indicator assesses the ability of a prescriber to clearly communicate his or her intention for treatment; it does not assess whether the choice of medicine(s) or dose prescribed was appropriate for the patient. Hospitals may choose to collect this data to provide additional information on prescribing practices and guide interventions.

Data collection involves looking at a number of components of safe prescribing. It would be useful to measure the individual components to inform post-audit interventions.

An important aspect of clear communication when prescribing is the use of standardised terminology. *QUM Indicator 3.3: Percentage of medication orders that include error-prone abbreviations* addresses this issue.

## Further information

Guidelines for use of the National Inpatient Medication Chart (NIMC) provide clear instructions on the safe and appropriate prescribing of as required medicines.<sup>5</sup> These can be accessed at [www.safetyandquality.gov.au/our-work/medication-safety/medication-chart/support-material](http://www.safetyandquality.gov.au/our-work/medication-safety/medication-chart/support-material)

The NIMC online learning program available from NPS MedicineWise assists practitioners to identify the principles of safe prescribing and demonstrates how to complete the NIMC correctly. This is available via: <http://learn.nps.org.au>

Medication Safety Self Assessment for Australian Hospitals<sup>7</sup> (MSSA) can help identify potential strategies for improvement with this and other indicators. MSSA encourages development of robust systems for safe prescribing, dispensing, administration and monitoring of medicines. MSSA is available at [www.cec.health.nsw.gov.au](http://www.cec.health.nsw.gov.au)

This indicator can be used to assist hospitals in meeting the National Safety and Quality Health Service Standard 1 [items 1.2.1, 1.2.2, 1.5.2, 1.6.1, 1.6.2], and Standard 4 [items 4.1.1, 4.2.1, 4.4.2, 4.5.1, 4.5.2].<sup>8</sup>

## References

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2. Usher K, Baker J, Holmes C. Understanding clinical decision making for PRN medication in mental health inpatient facilities. *J Psych Mental Health Nurs* 2010; 17: 558–564.
3. Baker J, Lovell K and Harris N. Mental health professionals' psychotropic pro re nata (p.r.n.) medication practices in acute inpatient mental health care: a qualitative study. *Gen Hosp Psych* 2007; 29: 163–168.
4. Usher K, Baker J, Holmes C, et al. Clinical decision-making for 'as needed' medications in mental health care. *J Adv Nurs* 2009; 65: 981–991.
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7. Medication Safety Self Assessment for Australian Hospitals: Institute for Safe Medication Practices USA (Adapted for Australian use by the NSW Therapeutic Advisory Group and the Clinical Excellence Commission), 2007.
8. Australian Commission on Safety and Quality in Health Care. *National Safety and Quality Health Service Standards*. Sydney, ACSQHC, 2012.