

3.5 Percentage of medication orders for intermittent therapy that are prescribed safely

Purpose

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

Background and evidence

Australian and overseas incident monitoring systems continue to report adverse outcomes involving daily administration of oral methotrexate when weekly dosing was intended. Some cases have resulted in fatalities.¹ Similarly, adverse outcomes have occurred when fentanyl patches were administered every 24 hours when dosing every 72 hours was intended.

Key definitions

Intermittent therapy refers to medication that is intended to be administered at regular intervals, but less often than daily. For the purposes of this indicator, this refers to oral methotrexate and transdermal fentanyl.

Prescribed safely means that the day or days of the week the medication is to be administered is stated in the order (eg Wednesday) and the days of the week where the medication is not to be administered are crossed out in the administration section of the medication chart.

Data collection for local monitoring

Recommended sample selection: Random sample of patients administered oral methotrexate or fentanyl patches. Patients may be identified from pharmacy dispensing records and/or controlled drug registers. Random means each patient has an equal chance of inclusion in the audit. Adult, paediatric and neonatal patients should be included.

Recommended sample size: 30 patients prescribed intermittent therapy over a one month period or all patients if less than 30 patients are identified. Collecting a larger sample where possible will increase the sensitivity of the data.

Recommended methodology: Review of medication charts.

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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 medication orders for intermittent therapy that are prescribed safely

Denominator = Number of medication orders for intermittent therapy in sample

Limitations and interpretation

This indicator does not assess safe prescribing of other oral medications that may be administered intermittently or intermittent administration of intramuscular or intravenous medications.

Further information

The *Medication Safety Self Assessment for Australian Hospitals² (MSSA)* can help identify potential strategies for improvement with this and other indicators. The MSSA encourages development of robust systems for safe prescribing, dispensing, administration and monitoring of medications. The MSSA is available at www.cec.health.nsw.gov.au

References

1. ISMP Medication Safety Alert! Methotrexate overdose due to inadvertent administration daily instead of weekly. Vol. 2007: Institute for Safe Medication Practices, 2002.
2. Medication Safety Self Assessment for Australian Hospitals: Institute for Safe Medication Practices (Adapted for Australian use by the NSW Therapeutic Advisory Group and the Clinical Excellence Commission), 2007.