4.1 Percentage of postoperative patients whose pain intensity is documented using an appropriate validated assessment tool

Purpose

This indicator addresses the effectiveness of processes for appropriate postoperative pain management.

Background and evidence

It is well documented that there are a number of benefits to be gained through the optimisation of acute postoperative pain management.[1] Patient expectations of postoperative pain are high and satisfaction with its management is varied. Australian data indicates that a significant number of postoperative patients are still in moderate to severe pain after discharge. Acute postoperative pain management is an area of interest for many health professionals, specifically in the choice, dosing, timing and efficacy of prescribed analgesia, which remains a practice gap.[2]

It is reasonable to expect that every surgical patient will be asked at least once about pain even after a procedure that is not expected to be painful.

Assessment of pain in conjunction with routine patient observations ("the fifth vital sign") has been shown to be useful in some clinical settings.[3] Assessing postoperative pain management and identifying a patient's current level of pain enables clinicians to choose appropriate pharmacotherapy where necessary, prioritise management, and assess changes in the patient's condition.[4,5] Monitoring acute pain management using indicators has been recommended by the American Pain Society.[5,6] It is recommended that choice of pain assessment tools is approved by an appropriate committee that includes pain management experts and that pain scales are standardised across the hospital where possible. It may be useful to build validated pain scales into all routine observation charts.

Key definitions

Postoperative patients refers to all patients admitted for a surgical procedure, including patients admitted to day-stay units.

Pain intensity documented means that at least one postoperative pain score has been documented on the patient's observation chart or in another predetermined place in the medical record. Pain scores must be determined using an appropriate validated tool.

Appropriate means the pain assessment tool is suitable for the patient's age, language and cognitive status.[7]

Validated assessment tool means the tool has been tested for inter-rater reliability when used according to specific instructions.

There are a number of validated pain assessment tools. Examples are shown in Table 1.

Table 1. Examples of validated pain assessment tools

Validated pain tool	Usefulness	Limitations
Visual analogue scale (VAS)	Useful in a wide range of clinical environments.	Usefulness may be limited in the cognitively or visually impaired and sedated patients.
Numerical rating scale (NRS)	Can be used verbally or visually and is useful in most settings.	Usefulness may be limited in the elderly, cognitively impaired and patients with communication difficulties.
Faces rating scale (FRS) NB: A number of different versions are available	Useful for children and patients with poor language skills.	
Behavioural rating scale	Based on clinical observations thus useful in patients who are cognitively impaired, confused or who have language difficulties.	

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: Adult, paediatric and neonatal postoperative patients.

Exclusion criteria: Nil.

Recommended data sources: Medical records, operating theatre lists, medication charts and observation charts.

The data collection tool for QUM Indicator 4.1 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 postoperative patients whose pain intensity is documented using an appropriate validated assessment tool

Denominator = Number of postoperative patients in sample

Pain management

Limitations and interpretation

Data collection for this indicator relies on documentation of pain intensity assessment in the medical record. Good documentation supports quality patient care[8] and is a critical component of management. Poor communication can result in adverse medicine events.[9] Thus it is assumed that absence of explicit documentation means no pain intensity assessment took place.

This indicator does not assess frequency of pain assessment or effectiveness of analgesic management.

Pain assessment should help guide appropriate post-operative analgesia. *Indicator 4.2: Percentage of postoperative patients that are given a written pain management plan at discharge AND a copy is communicated to the primary care clinician* may also be relevant. It may be appropriate to collect Indicators 4.1 and 4.2 concurrently where possible.

Further information

For further information about validated tools for monitoring pain see:

- The NPS acute postoperative pain (APOP) drug use evaluation (DUE) toolkit[10] **www.nps.org.au/health-professionals/ professional-development/due-programs/ due-kit-for-hospitals/apop**

- The Victorian Quality Council Acute Pain Management Toolkit[4] **www.health.vic.gov.au/qualitycouncil/ downloads/acute/apmmt_audit_tool_ guidelines.pdf**

The Medication Safety Self Assessment for Australian Hospitals[11] (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 medicines. The MSSA is available at **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 4.2.1, 4.2.2, 4.5.1, 4.5.2, 4.11.1].[12]

References

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11. Medication Safety Self Assessment for Australian Hospitals: Institute for Safe Medication Practices USA (Adapted for Australian use by NSW Therapeutic Advisory Group and the Clinical Excellence Commission), 2007.

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