

National Quality Use of Medicines Indicators

Review on Use, Relevance & Potential Automation in eMR

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Background

Clinical indicators to measure and monitor Quality Use of Medicines (QUM) in Australian hospitals and guide quality improvement (QI) were published in 2007. They were reviewed and expanded in 2014. The Indicators require periodic review for relevancy, utility and feasibility. QI will be more achievable with more efficient data collection, such as harnessing routinely collected data from electronic medical records (eMR).

Objectives

- To determine the overall utilisation & relevance of the National QUM Indicators.
- To identify clinician priority and preferences for automated Indicators.
- To investigate potential improvements to Indicators.



Methods



Six online questionnaires were distributed to clinicians with an understanding of QUM activities in Australian health service organisations. Ethics approval sought and granted. A stakeholder steering group was convened to review results and progress next steps.



Results

- There were 186 responses received (approximately 30 per survey) from all Australian jurisdictions.
- All NQUM Indicators* had been used since their update in 2014.
- The most frequently used indicators aligned with measures used in other programs.
- Nine of the top 10 most frequently used Indicators provide evidence for Standards 3 and 4 of the National Safety and Quality Health Service Standards.
- Respondents prioritised indicator automation according to high risk medicine status; availability of relevant data in eMR; and inter-operability of electronic systems.
- Practice change, resolved evidence-based gaps and new and emerging QUM gaps identified redundant and potential QUM indicators.

Top 10 NQUM indicators used once or more (as proportion of responses)

NQUM Indicator number & summarised description	Respondent Use
1.1 Appropriate VTE risk assessment	65%
1.3 Appropriate enoxaparin dosing	60%
2.1 Appropriate antibiotic prophylaxis for surgery	66%
2.2 DTC-concordant use of restricted antibiotics	59%
3.1 Appropriate medication reconciliation	94%
3.2 Appropriate documentation of ADRs	91%
3.3 Appropriate documentation of abbreviations	67%
5.9 Appropriate provision of medication list on discharge	59%
6.1 Appropriate potassium ampoule storage	74%
6.2 Timely clinical pharmacist review	74%

Top 10 NQUM indicators for automation into eMR (as proportion of responses)

NQUM Indicator number & summarised description	Automation preference
1.1 Appropriate VTE risk assessment	97%
1.2 Appropriate level of VTE prophylaxis	97%
3.1 Appropriate medication reconciliation	94%
4.1 Appropriate postoperative pain documentation	95%
4.2 Appropriate provision & communication of postoperative pain management plan	100%
5.3 Appropriate documentation of medication changes for discharge	89%
5.7 Reconciliation of sedatives at discharge	93%
5.9 Appropriate provision of medication list to patient on discharge	93%
6.2 Timely clinical pharmacist review	89%
7.3 Appropriate provision of information regarding psychotropics	92%

Suggested amendments to existing NQUM Indicators

Include antipsychotics in NQUM Indicator 5.7 to capture delirium population

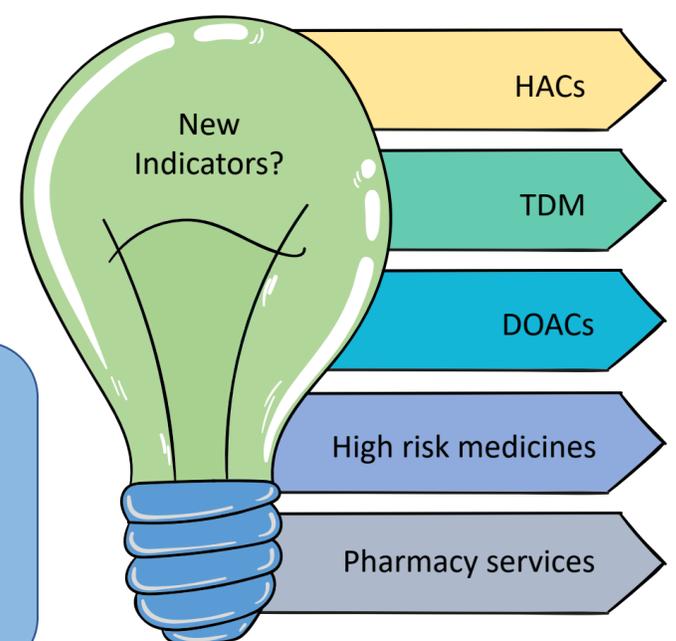
Include assessment of verification step for chemo orders in NQUM Indicator 3.6

Change terminology from antibiotic to antimicrobial

Reframe acute mental health care indicator set to include psychotropics for other indications e.g. aged care

Summary

- ✓ NQUM Indicators are frequently used tools to measure QUM in hospitals
- ✓ NQUM Indicators were prioritised for automation.
- ✓ Candidate QUM indicators for development were identified.



Discussion

NQUM indicators are useful tools to measure QUM and are used frequently by a broad range of health service organisations. To remain relevant and useful, NQUM Indicators must be reviewed and updated to keep pace with emerging technology and changes in evidence and practice.

Conducting quality improvement projects is always challenging in the frontline clinical environment and has become further challenged with clinician burn-out and implementation fatigue as a result of the COVID-19 pandemic. This underscores the need for efficient data collection for QI programs and accreditation activities in a resource-limited environment.

Next steps



Stakeholder partnerships are being established and funding is being sought to update existing NQUM Indicators and to develop new indicators to address emerging QUM gaps in the Australian clinical landscape. The project report has been published on the NSW TAG website.



<https://www.nswtag.org.au/qum-indicators/>

*The NQUM Indicators are owned by NSW TAG, ACSQHC and CEC.