

CLINICAL INDICATORS

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1. Introduction

Clinical and performance indicators have been in use by health services since the 1980s. An increased awareness of quality and safety issues, coupled with accreditation and regulatory requirements in recent years has seen the expansion and development of clinical indicators for specific disease and service types, as well as to overarching areas such as clinical governance and patient safety.¹

Clinical indicators measure the extent to which set targets are achieved. They are expressed as numbers, rates, or averages that can provide a basis for clinicians, organisations, and planners aiming to achieve improvement in care and the process in which patient care are provided. They can be measures of structure, process, and outcome, either as generic measures relevant for all diseases, or disease-specific measures that describe the quality of patient care related to a specific diagnosis.²

Indicators are assessed on the basis of the strength of scientific evidence for their ability to predict outcomes and that an ‘ideal’ indicator should be:

- Based on agreed definitions, and described exhaustively and exclusively;
- Highly or optimally specific and sensitive, i.e. it detects few false positives and false negatives;
- Valid and reliable;
- Able to discriminate well;
- Able to relate clearly identifiable events for the user (for example, it is relevant to clinical practice);
- Permit useful comparisons; and
- Evidence based.^{3,4}

As well as meeting these criteria, clinical indicators should:

- Give an indication of the quality of the patient care delivered;
- Comply with high quality standards;
- Be constructed in a careful and transparent manner;
- Be relevant to the important aspects of quality of care;

¹ Travaglia J, Debono D. (2009) *Clinical indicators: a comprehensive review of the literature*, the Centre for Clinical Governance Research in Health, Faculty of Medicine, University of New South Wales, Sydney, 2009

² Mainz, J. (2003) *Defining and classifying clinical indicators for quality improvement*, International Journal of Quality in Health Care, 15(6)

³ Quality, Safety and Patient Experience Branch (2010) *Partnering and Performance: A Performance Development and Support Process for senior Medical Staff*, Victoria Health Department, 2010.

⁴ Mainz, J. (2003) *Defining and classifying clinical indicators for quality improvement*, International Journal of Quality in Health Care, 15(6)

- Measure the quality in a valid reliable manner with minimal inter and intra-observer variability so that they are suitable for comparisons between professionals, practices, and institutions;
- Be selected from research data with consideration for optimal patient care (preferably an evidence based guideline), supplemented with expert opinion;
- Be relevant to important aspects (effectiveness, safety and efficiency) and dimensions (professional, organisational and patient oriented) of quality of care;
- Be feasible (that is, be appropriate, measurable and improvable) as well as valid and reliable; and
- Be defined exactly and expressed as a quotient.^{5, 6}

Monitoring health care quality is impossible without the use of clinical indicators. They create the basis for quality improvement and prioritisation, and when assessed over time, provide a method of assessing the quality and safety of care at a system level.

2. Clinical indicators and quality improvement

Quality of care can be defined as ‘the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge’.⁷ Quality improvement is an interdisciplinary process designed to raise the standards of the delivery of preventive, diagnostic, therapeutic, and rehabilitative measures in order to maintain, restore or improve health outcomes of individuals and populations. Quality improvement is a method of continuously examining processes and making them more effective.⁸

In this context, clinical indicators are tools used for measuring a process or outcome. Quality improvement and the use of clinical indicators is about analysing processes, identifying what changes could be made to improve the process, and establishing a plan to make improvements. It is not about assigning blame for an ineffective process, but is about determining what can be done differently to improve the outcome.

Drawing from the work of W. Edwards Deming PhD⁹, quality improvement principles include: a strong focus on patients; continuous improvement of all processes; whole practice involvement in the pursuit of quality; and use of data and team knowledge to improve decision-making.

In Australia quality improvement in the health care system is supported by:

- Continuing professional development;

⁵ Quality, Safety and Patient Experience Branch (2010) *Partnering and Performance: A Performance Development and Support Process for Senior Medical Staff*, Victoria Health Department, 2010.

⁶ Wollersheim, H., Hermens, R., Hulscher, M., Braspenning, J., Ouwens, M., Schouten J. (2007) *Clinical Indicators: Development and Applications*, Netherlands Journal of Medicine, vol. 65, no. 1, pp. 15-22

⁷ Lohr, K.N. (ed.) (1990) *Medicare: A strategy for Quality Assurance*. Vols I and II, Washington DC: national Academy Press, 1990

⁸ Coleman, M.T. and Endsley, S. (1999) Quality Improvement: First Steps. *Family Practice Management*, 1999, Mar; 6(3): 23-26

⁹ Coleman, M.T. and Endsley, S. (1999) Quality Improvement: First Steps. *Family Practice Management*, 1999, Mar; 6(3): 23-26

- Accreditation of healthcare provider organisations;
- Federal Government funded practice incentives;
- The establishment of the Australian Commission on Safety and Quality in Health Care; and
- Audit and peer review processes such as that conducted by the Royal Australian College of Surgeons (RACS).

3. AMA Position

3.1 Purpose and benefits of Clinical Indicators

Quality improvement is the process of reviewing, refining and enhancing the processes for and activities of delivering patient care to mitigate risks and ensure better outcomes for patients.

The introduction of any formal set of clinical indicators in health care should be for the sole purpose of improving safety and quality. Clinical indicators provide an important means by which to measure and evaluate practice processes and clinical activities in order to identify areas where improvements to outcomes could be achieved.

The establishment of a mechanism that enables medical practices to regularly review robust and relevant information about their practice for the purpose of improving best practice is essential.¹⁰

3.2. Effective development and use of Clinical Indicators

Clinical indicators must be relevant to the type of practice, supported by evidence and easily measurable if they are to be effective tools in the pursuit of quality improvement.

For high standards of quality and safety to be assured it is essential that there is a strong clinical involvement in and ownership in the development of clinical indicators and the processes set up to measure and to assure safety and quality.¹¹ Clinical indicators should therefore, independently of government, be developed and ratified by the relevant medical specialty.

Clinical indicators must be supported by evidence and prior to implementation must be tested to ensure their appropriateness, reliability and validity.

The selection of clinical indicators to be used in quality improvement activities should be entirely voluntary and driven from the local level as this improves the scope for 'buy in' from the practice workforce. Practices must be able to without cost access the clinical indicators they wish to use and their use should not unduly increase practices' administrative burden.

Medical practices should have the flexibility, without penalty, to choose which/if any clinical indicators they regard as valuable in assessing the safety and quality of their operational processes and service provision, and against which they can readily identify,

¹⁰ Paraphrased from AMA Position Statement on Quality and Safety in Public Hospitals

¹¹ AMA Position Statement on Quality and Safety in Public Hospitals

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pursue and measure quality improvement activities. A workforce actively engaged at the most local level, i.e. the practice level, in the determining quality improvement processes relevant for their practice will be more committed to improving and observing quality and safety assurance processes and quality measurement.¹²

Strong clinical ownership of clinical indicators is essential for improving the quality of clinical services.¹³

Clinical indicators must also be reviewed, evaluated and updated on an ongoing basis to ensure their continued appropriateness, reliability and validity over time.

3.3. Misuse of Clinical Indicators

While the AMA supports appropriate mechanisms for quality improvement, there is also a need to be aware of, and guard against, the misuse of clinical indicators. There is an inherent danger that a focus on achieving clinical indicators and performance against them diverts attention from patient care. This danger is particularly present if outcomes measured against clinical indicators are used to; dictate or impose levels of safety or quality or for pay for performance purposes.

The use of clinical indicators in pursuit of safety and quality improvement must remain voluntary and free of charge. This ensures flexibility in the choice of and use of clinical indicators, enabling practices to direct resources appropriate to their circumstances to continuous improvement activities. Individual practitioners or practices that choose not to participate should not be penalised for that choice.

While aggregate data is useful in assessing performance against a clinical indicator, identifiable data should be quarantined in perpetuity-never to be sold or published. Individual practitioners and practices willing to participate in improvement initiatives should not have their performance data used for the purpose of promotion or disparagement.

Clinical indicators that are not supported by evidence, or important for safety and quality, risk driving unproven and inappropriate clinical activity. The best return on the collection of quality indicators is when the focus is on high cost areas, when the outcome is of major significance; and when the consequences of poor care have major implications for survival or quality of life and the cost of subsequent care; and where remedial action is practical.¹⁴

Clinical indicators must be relevant, evidenced based, and easily measured so as to ensure that limited resources are efficiently directed and the data gathered worthwhile.



¹² Paraphrased from AMA Position Statement on Quality and Safety in Public Hospitals

¹³ Paraphrased from AMA Position Statement on Quality and Safety in Public Hospitals

¹⁴ Smallwood, R. A. (2006) The safety of quality of health care: from Council to Commission. MJA 2006:184 (10 Suppl): S39-S40.