Understanding clinical practice toolkit

Contents

Formal peer review

Definition

Formal peer review is the process by which individuals of the same profession, experience and working in similar organisational settings, critically assess their colleague(s) performance, in order to reinforce areas of strength and quality in patient care, and to identify areas for development or improvement.

Background

Peer review involves some form of performance assessment or judgment on a senior doctor's performance, where a number of elements of clinical practice are assessed including:

- clinical expertise and practice
- communication
- scholarship
- professionalism.

Peer review in various forms has been used in medical practice since the inception of individual case review in the 1880s. In recent years changes to credentialling and appointment processes, along with concerns about the quality and safety of health care have resulted in a renewed interest in the use of peer review as a technique for assessing and monitoring clinical care.

There is a growing evidence base for peer review as an assessment and quality improvement process, both in health care and in related industries.[1]

In health care, peer review has been shown to be effective in improving professional practice through improving knowledge and in facilitating positive changes in practice amongst senior medical practitioners in several disciplines. In addition, peer review processes are associated with improved motivation and engagement. Improved patient satisfaction and outcomes may be a benefit of this process.

Peer review supports 'achieving and delivering optimal quality of care… [through] continual self-examination by the profession, particularly with regard to technical, interpretive, and communicative skills' (Alpert & Hillman 2004, p.127). The peer review process is thus steeped in concepts of supporting clinical practice and building on excellence.

Formal peer review provides professional bodies and health services with a method for assessing or judging the performance of senior doctors, particularly in areas which are difficult to assess, such as communication, interprofessionalism, teamwork and relationship building with patients. Peer review is intended to provide individuals with an insight into the way others perceive their performance. In doing so, peer review offers participants an opportunity to reflect on their own performance.

[1] The literature review for *Peer review* is available at www.health.vic.gov.au/clinicalengagement.

Peer review may enable organisations to identify senior doctors who are at risk of underperformance or who are underperforming and may require assistance. The process should assist senior doctors with performance concerns through the formulation and implementation of agreed remedial strategies.

The peer review process generally includes one or more of the following:

- identification of the doctor's strengths and weaknesses by the doctor and their peers
- a comparison of these strengths and weaknesses with an 'average' colleague in their peer group
- identification of areas which require development
- creation of an agreed development plan to address these areas.

Peer review is thus an effective method:

- for understanding clinical performance within a broader organisational context
- for comparing self assessment of otherwise difficult to assess competencies
- to assist in the identification of medical practitioners experiencing difficulties
- to aid in changes in practice behaviour, such as uptake of guidelines.

Purpose

Peer review is an important tool for understanding and supporting the improvement of clinical practice. Formal peer review should inform organisational performance development and support processes, and in doing so contribute to clinical governance responsibilities. In *Partnering for performance* formal peer review has two distinct purposes:

- it is a key element of the credentialling/re-credentialling process
- it should be considered the key forum or activity for understanding and judging issues of an individual senior doctor's clinical performance where significant concerns about an individual's performance have been raised (that were not able to be managed at the local (for example, unit/department) level).

Formal peer review in this context is not referring to informal peer based review (for example, as part of a unit or service based case discussion or routine performance conversation).

Formal peer review processes, when well designed for their intended purpose, properly resourced and clinically led, have high level clinical acceptance. They may provide an important mechanism for understanding clinical performance at the level of the individual senior doctor, and thus provide an important quality governance mechanism to support credentialling and scope of practice processes, and secondly, the assessment and management of possible senior doctor underperformance.

This guide to peer review should be used in conjunction with the Australian Commission on Safety and Quality in Healthcare *Peer review guide*[2].

[2] This document is due for release in 2010.

How to undertake peer review for the purpose of understanding and managing potential underperformance

The medical director (or equivalent) has responsibility for initiating and leading a formal peer review process. This should be managed within the context of the organisation's credentialling and scope of practice processes.

Successful formal peer review requires an open and positive organisational culture which emphasises excellent clinical care.

1. The process should be framed and promoted internally as an activity designed to support clinical practice. In particular:
    - clear terms of reference for the process should be provided to all relevant parties
    - the individual being reviewed must be involved in the development of the assessment process
    - the individual being reviewed must be offered the option of external support (for example, colleague/legal practitioner) for the duration of the process
    - the process must operate on a 'no surprises' basis – the doctor being reviewed should be aware of all processes and activities undertaken
    - where an individual refuses to participate in an appropriately structured and constituted peer review process undertaken for the consideration of apparent underperformance, the medical board should be notified.
2. To assess an individual's clinical practice, a standardised, tool-driven (questionnaire, case analysis) assessment should be used. Review processes may also include: significant event analysis; direct observation (including video-taping of consultations); record, case note or chart review; objective structured clinical examination; practice visits; and patient feedback.
3. Simple measurement scales which are suitable for the intended purpose should be used. The individual being reviewed must be involved in the development of these scales.
4. Where possible and where appropriate, senior doctor level clinical data such as number of complications and mortality data, should be collected prior to the peer review to assist with peer comparison. The doctor under review must have access to this data. Other relevant clinical elements (for example, college continuing professional development (CPD) processes) should also be considered. Care should be taken in interpreting clinical data, giving consideration to the issues and cautionary notes raised elsewhere in this toolkit.
5. Participants must be appropriately trained in the peer review process and the provision and receipt of feedback.
6. Where possible, a number of reviewers should be involved in the process. In some settings it may be reasonable to use peers from within the workplace of the senior doctor undergoing review. Where possible, senior doctors reviewing underperformance should be independent of both the senior doctor being reviewed and the senior doctor's workplace.

7. The peer review process makes a finding regarding the presence or absence of underperformance. When underperformance is present, the reviewers must identify the areas of underperformance and provide guidance regarding the possibility of remediation.
8. A formal written report of the outcomes of the peer review process should be provided to the organisation's credentialling and scope of practice committee. The committee should:
    - meet promptly to decide a way forward which may include recommendations about practice development, review of scope of practice or referral to the medical board
    - provide prompt, formal written feedback to the doctor undergoing formal peer review. This feedback must include the full findings of the peer review process, the conclusions of the process, and recommendations. This feedback should be incorporated into the senior doctor's performance development process and recorded in the doctor's personnel file.
9. The organisation should also ensure that:
    - the process is properly resourced and appropriate administrative support is available
    - all participants sign a confidentiality agreement prior to commencing the peer review.

Critical risks to consider in using the tool

The processes of formal peer review, in order to be effective as an assessment process (and be able to withstand, for example, legal challenge), must be reliable, valid, feasible and have an educational impact.

A number of barriers to the peer review process have been identified, these include:

- lack of clarity on behalf of the organisation and participants regarding the purpose of the process
- lack of standardised processes
- lack of meaningful clinical level data for peer comparison
- limited reliability of assessment procedures
- participants having limited time to commit to the process
- lack of experience and training in review procedures
- fear of criticism and negative evaluations from colleagues
- negative attitudes of doctors and peers towards the peer review process
- an antagonistic professional or organisational culture
- lack of engagement by and with senior medical staff.

Every effort should be made to ensure that the organisation's approach to formal peer review is:

- non punitive and focuses on enhancing the relationship between senior doctor and organisation
- properly structured to ensure consistency and reproducibility through the use of a standardised approach which is relevant and acceptable to senior doctors.

Both senior doctor and organisation must be willing to collaborate and cooperate around managing the outcomes of the peer review process. The process will have no value if organisation and/or senior doctor are unable or unwilling to deliver on identified issues.

Failure to adopt a consistent, properly structured, transparent approach designed to engage both organisation and the senior doctor undergoing review renders this process liable to misinterpretation and potentially to legal challenge.

Victorian approach to peer review for the purpose of credentialling and defining scope of practice

The *Credentialling and defining the scope of clinical practice for medical practitioners in Victorian health services* policy (Department of Human Services 2007) recognises that peer assessment and the willingness of individuals to comment on their own skills and the skills of others are fundamental to successful processes of credentialling and defining the scope of clinical practice. Peer review should be a key element of re-credentialling (through the credentialling committee) of all senior doctors appointed to Victorian public hospitals. Similar principles to those outlined above should apply:

1. The process should be framed and promoted internally as an activity designed to support excellent clinical practice.
2. Standardised assessment processes including relevant clinical data and simple measurement scales which are suitable for the intended purpose should be used. The individual being reviewed must be aware of these measures.
3. Where possible, a number of reviewers should be involved in the process. In most settings it would be reasonable to use peers from within the workplace of the senior doctor undergoing review.
4. The peer review process makes a finding regarding the appropriateness of re-credentialling and recommendations regarding scope of practice.
5. The organisation should also ensure that the process is properly resourced and appropriate administrative support is available.

Victorian approach to peer review for the purpose of understanding and managing potential underperformance

Senior doctors appointed to Victorian public hospitals should participate in a formal peer review process if there are concerns about the doctor's clinical performance sufficient to prompt an organisation level inquiry.

Formal peer review processes should NOT be used to initially investigate clinical performance issues. Where possible, performance issues should be initially investigated and managed by the doctor's medical lead (medical director, unit head or equivalent) as outlined in *Partnering for performance*.

Similarly, formal peer review processes should not be required for routine monitoring of clinical performance at the clinical service/unit/department level. There is an expectation that there is peer input and informal peer review in all clinical performance discussions at the local level. This input should occur during the use of the tools that organisations have to monitor clinical performance as outlined in this toolkit.

Adverse occurrence screening/ Targeted case note review

Definition

The review of selected or targeted medical records by medical colleagues using screening criteria which may be associated with care related adverse events.

Background

Adverse occurrence screening (AOS)/targeted case note review (TCNR) seeks to identify underlying problems with care delivery which might provide opportunities for clinical improvement.

Although based on the broader Medical Management Analysis system, Limited adverse occurrence screening (LAOS) is uniquely Victorian in origin, developed at Wimmera Health Care Group in 1989 by Professor Alan Wolff and colleagues.

LAOS was developed in recognition that adverse outcomes and medical care errors amongst inpatients may not be detected by traditional methods such as incident reporting (underreporting is common) or ad hoc selective case note review (subject to inconsistency and potential bias).

Elements of AOS/TCNR are already being undertaken in many hospitals (for example, review of deaths, patients transferred to ICU) however the review process is often inconsistent and ad hoc. AOS/TCNR standardises case note review using a peer based system that is consistent and reproducible.

The reported immediacy and flexibility of AOS/TCNR as a review process, coupled with the general strength of occurrence screening as a method of identifying adverse events, would suggest that it has value for clinical practice improvement in a range of clinical settings.[3]

Amongst its strengths are:

- its ability to engage senior doctors
- the automatic review of the care provided by all doctors
- the clear link between findings and individual, team and service improvement strategies.

AOS/TCNR involves three key steps:

1. Screening of medical records for key patient outcome criteria. The criteria are predetermined by the doctors whose care is being reviewed. Examples of screening criteria include:
   - unexpected patient death
   - cardiac arrest/medical emergency team (MET) calls
   - patient returning to theatre within seven days
   - transfer of patient from a ward to intensive care unit.

   This screening is conducted by medical records/health information administrators, support staff, senior doctors, or as has been trialled more recently, by computers using administrative data sets.

[3] The literature review for *AOS/TCNR* is available at www.health.vic.gov.au/clinicalengagement

2. These medical records are then reviewed by experienced, trained, senior doctors (usually peers who have not been involved in the care of the patient). This is conducted in a structured and reproducible fashion seeking evidence of likelihood, type, severity and preventability of errors. Questions asked at this stage might include:
    - Did an incident/adverse event occur?
    - What injury resulted?
    - Was the situation preventable?
    - What lessons can be learned?
3. This information is then used to develop quality improvement strategies and programs, including through:
    - broader discussion of the case in a peer forum (for example, morbidity and mortality meeting)
    - involvement of other organisational elements in establishing a formal improvement strategy.

One limitation of AOS/TCNR is that it is based on retrospective case note review. This can be addressed by ensuring rapid screening following patient discharge and allowing reporting of key incidents by individual doctors, thus enabling a prompt and targeted review. In addition, the use of typed discharge summaries and in future, electronic medical records should assist in minimising delays and screening issues.

Purpose

AOS/TCNR can be used to identify cases for subsequent discussion or review (for example, at a morbidity and mortality meeting). In doing so, it has the potential to reduce the uncertainty and inconsistency inherent in selecting cases for discussion in such a forum, and thereby enhances the understanding of any underlying clinical practice issues.

AOS/TCNR may be combined with other clinical measures including clinical audit to allow a broader picture of an individual's clinical performance. The benefits from this process are maximised when clinical performance is monitored over time.

AOS/TCNR activities may also prompt escalation to formal peer review processes.

If structured correctly, properly resourced, and seen as part of a system level approach to understanding adverse outcomes and clinical practice, AOS/TCNR can contribute to the development of an integrated understanding of clinical practice at the level of the individual senior doctor.

How to undertake AOS/TCNR

Each hospital should conduct its AOS/TCNR at the most appropriate level for that organisation. For example, at the hospital level for a small hospital with limited local specialist input, or for larger hospitals, at the level of a clinical service, unit or department.

The tool has been applied at the level of specific services (for example, internal medicine service covering all physician activities) or across specialty hospital settings (for example, paediatric services). Units/departments should choose screening criteria appropriate to their clinical needs to ensure they have specific value in terms of understanding clinical practice at a local level (for example, anastamotic leaks post colorectal surgery, development of medication side effects, post partum haemorrhage).

To enable proper use and maximum benefits, AOS/TCNR requires:

- an open and positive organisational culture, which focuses on excellent clinical care
- the process to be led by a senior doctor who has an ability to engage with clinical colleagues and to facilitate change at the patient care level
- an awareness by senior doctors that their records will be screened as part of this process
- support from health information staff to screen records
- training for the team of reviewers to provide peer input into the process
- senior doctors willing and able to participate as case reviewers
- allocated (funded) time for reviewers
- a clear and transparent approach to case note review – this should be standardised and ideally electronic
- properly structured meetings to review and consider recommendations from the AOS/TCNR process/discuss cases (see *Mortality and morbidity review tool*)
- clinical governance structures and processes which have an ability to influence change and to drive improvement (including processes to report findings and implemented strategies to all relevant groups).

To establish and maintain a AOS/TCNR program:

- clearly outline to senior doctors how the program will assist them in improving the delivery of patient care
- define the program's medical leadership (for example, unit/department specific)
- clearly identify communication channels and how the program will report through organisational clinical governance processes and to senior medical staff
- agree on the scope of the program (in larger hospitals this should be at the unit/department level to ensure applicability and acceptance – individual departments or units may modify screening criteria to suit local practice and patient factors)

- agree on participants:
  - for example, three or more senior doctors per department/unit (depends on local needs)
  - junior medical staff may also be involved but decision making responsibilities should lie with the senior doctors
  - senior nursing and other clinical staff may also be involved to enable multidisciplinary approaches to understanding clinical practice, although the participants should be predominantly medical
  - reviewers should not review the records of their own patients
- agree on screening criteria (this should be the responsibility of the relevant medical lead and should reflect the clinical services provided by the department/unit)
- the following screening criteria should be included in all AOS/TCNR programs:
  - patient death which is unexpected by the clinical team
  - all medical emergency team (MET) calls or code blue/cardiac arrests
  - transfer of a patient from a ward to intensive care unit
  - for surgical services – unexpected return to theatre
  - any medical record referred by a senior doctor or other clinician for review
- inpatient cases should be screened within one month of discharge and formally reviewed within two months of discharge (local key performance indicators (KPIs) should be developed to ensure ongoing monitoring of the timeliness of the AOS/TCNR process)
- establish a consistent approach to the management of reported data – data should be recorded electronically and reported back to senior doctors on a three monthly basis (as a minimum)
- ensure adequate support for this process.

In organisations undertaking AOS/TCNR at unit or department level, resources such as health information management staff, administrative support and clinical quality staff may be shared across a number of AOS/TCNR programs.

It is imperative that information derived from the AOS/TCNR program be aggregated into a format which allows regular review and action (where needed) through the organisation's usual clinical governance processes.

Critical risks to consider in using the tool

Most critiques relate to the issues of validity and sensitivity of indicators. Simplifying the definitions of the indicators should increase consistency (as has been found in the roll out of AOS/TCNR in a number of Victorian regional general practice based hospitals).

Whilst AOS/TCNR is intended to review records with a high probability of containing adverse events, it will by definition miss errors which are not predictable or are hidden. However, AOS/TCNR is not intended to capture all adverse events or issues of concern, but rather to sit alongside other existing programs such as incident reporting. In doing so, AOS/TCNR can contribute to developing a picture of clinical practice at both the system and individual level.

Victorian approach

AOS (as the LAOS program) is currently in place in some small rural hospitals assisted by local Divisions of General Practice.

The program is outlined at:
http://www.health.vic.gov.au/clinrisk/publications/laosreview.htm

Specialist and general hospitals in regional Victoria and metropolitan Melbourne have adapted elements of the LAOS program.

All hospitals should be using AOS/TCNR at an appropriate level (either whole of hospital, clinical service, department or unit). When combined with other clinical tools, AOS/TCNR may be able to provide significant insight into an individual's clinical practice, particularly where underperformance is occurring.

Examples of AOS/TCNR forms are available at:
www.health.vic.gov.au/clinicalengagement

Example Adverse occurrence screening /Targeted case note review form

< Health Service >
< Unit/Department/Service >

A. Health information manager:

Hospital Code:	**Doctor Code:**
Patient UR Number:	**Date of birth:**
Admission Date:	**Sex:** ☐ M ☐ F
Discharge Date:	**HIM initials:**

Screening criteria (Tick all criteria met during this admission)

☐ Patient death
☐ Unplanned return to theatre within 7 days
☐ Unplanned re-admission within 28 days of discharge
☐ Transfer to another health service
☐ Patient length of stay greater than 35 days
☐ Any record which has been recommended by a doctor or other health professional for review *(specify reason)*

B. Project officer:

Reviewer code:	**Date record sent for review:**
Date returned:	**Action/Comments:**

C. Reviewer:

Please review the medical record to identify adverse patient events or education and/or quality improvement opportunities.

To be considered an ***adverse event*** the following criteria shall be met:

An unintended injury, or harm that

1. Resulted in temporary or permanent disability, hospitalisation, including increased length of stay and/or financial loss to the patient, and
2. Was caused by health care management (either at an individual or systems level) rather than the underlying disease process.

Please tick *Yes* or *No* to the following two statements:	**Yes**	**No**
This record contains a possible adverse event.	☐	☐
There is no adverse event but possible education or quality improvement opportunity	☐	☐

If you have ticked **No** to both statements please proceed to section E
Otherwise please continue below and complete the whole form

Consequence – please tick the appropriate level of actual OR potential consequence

☐ **1. Insignificant** – No injury, increased level of care or length of stay
☐ **2. Minor** – Increased level of care including review and evaluation, additional investigations or referral to another clinician
☐ **3. Moderate** – Permanent reduction in bodily functioning unrelated to natural course of illness or differing from the expected outcome of management. Also includes increased length of stay or surgical intervention as a result of the event.
☐ **4. Major** – Major permanent loss of function or disfigurement as a result of the event unrelated to natural course of illness and differing from the expected outcome of management.
☐ **5. Extreme** – Unexpected death unrelated to natural course of illness or differing from the expected outcome of patient management. Also includes procedures involving wrong patient or body part, suicide during admission, retained instruments, serious medication errors or any other events requiring notification under existing legislative or Australian Council for Safety and Quality in Health Care guidelines

Likelihood – please tick the appropriate level of possible frequency

☐ **1. Rare** – Likely to recur only in exceptional circumstances

☐ **2. Unlikely** – Might possibly recur at some time every 2-5 years

☐ **3. Possible** – Could occur at some time every 1-2 years

☐ **4. Likely** – Will probably or may occur several times per year

☐ **5. Frequent** – Expected to occur either immediately or within a short time

D. Details of the event

Please use the table below as a prompt or guide to identify issues/factors you consider are present that may have contributed to the outcomes of the case. Where a box is ticked a specific issue should be raised in the comments section.

Factors influencing clinical practice

Organisational/Environment

☐ Staffing levels, workload and skill mix

☐ Resource or equipment constraints

☐ Access to other acute facilities or treatment options

☐ Access to community services, transport, etc.

Patient Factors

☐ Case complexity or complication

☐ Communication/language

☐ Social factors

Communication

☐ Content of medical record

☐ Legibility of medical record

☐ Supervision/support – access to

☐ Discharge arrangements and plan developed

☐ Communication between clinicians/handover

☐ Communication to/from other agencies

☐ Information provided to patient/carer

Medical Management

☐ Initial medical assessment and history

☐ Diagnostic tests – choice and timeliness

☐ Diagnosis – appropriate and timely

☐ Treatment plan – development and documentation

☐ Clinical guidelines – appropriate use

☐ Treatment, monitoring, transfer – appropriate and timely

☐ Medication orders – appropriate and timely

☐ Previous treatment at other agencies

Task Factors

☐ Education, training and credentialling

☐ Protocols or guidelines – availability and/or use

☐ Results – availability and communication

☐ Treatment plan – implementation

Please summarise the relevant CLINICAL DETAILS related to this case

Please summarise SPECIFIC issues arising from your review of this case

E. TIME TAKEN TO REVIEW MEDICAL RECORD

Minutes: **Reviewer's Signature:** **Date:**

Example Adverse occurrence screening /Targeted case note review report

< Health Service >
< Unit/Department/Service >

Patient UR	Admission date	Discharge date
Examples of screening criteria (circle all met during admission) *NB screening criteria should be adapted to meet local clinical requirements*	1. Death 2. Transfer to ICU from wards 3. MET call 4. Unplanned readmission within 28 days 5. Other	
An *adverse outcome* is an untoward patient event, which under optimal conditions is not a consequence of the patient's disease or treatment.		
Please review the care given and rate whether an adverse outcome was caused by medical management. **Circle the appropriate number.**	1. Little or no evidence of an adverse outcome caused by management 2. Slight evidence 3. Not quite likely (< 50/50 odds but a close call) 4. More likely than not (> 50/50 odds but a close call) 5. Strong evidence 6. Virtually certain evidence	
If an adverse outcome did occur (i.e. rated 4 or above) – where did it occur?		
Within this hospital	Another hospital	Outside hospital
If an adverse outcome did occur (i.e. rated 4 or above) – please provide brief clinical details.		

Please code the severity of the adverse outcome (please circle)		
0	**Minor severity**	No disability No significant patient discomfort No functional impairment No increased LOS
1	**Minor temporary**	Minimal to moderate clinical effect Requiring minimal or no clinical intervention No increased LOS No re-presentation for same or related problem
2	**Minor permanent**	Minimal to moderate clinical effect Permanent residual without cosmetic impairment No functional impairment
4	**Major permanent**	Moderate to severe clinical effect No significant functional effect No significant cosmetic effect Increased LOS or re-hospitalisation Requires moderate to major clinical intervention
5	**Potential major or major continuing**	Doubt about outcome but probability is of major impairment or re-presentation to hospital. Outcome may result in major impairment
6	**Death**	

Preventability (please circle)	
1	Little or no evidence for preventability
2	Slight or modest evidence for preventability
3	Preventability not quite likely (< 50/50 odds but close call)
4	Preventability likely (>50/50 odds but a close call)
5	Strong evidence for preventability
6	Virtually certain evidence for preventability
What further action would you recommend? (please circle)	
1	None
2	Presentation of case at MMR meeting
3	Discussion with the doctor involved by medical lead
4	Requires: • major intervention, and • formal Root Cause Analysis, and • informing hospital insurers of this case
5	Other – please specify

Further comments

Reviewer's name and signature **Date of review**

Completed forms should be forwarded to the medical lead with responsibility for the Adverse occurrence screening/ Targeted case note review for collating and action (if required).

Mortality and morbidity reviews/ Case discussion meetings

Definition

A routine, structured forum for the open examination and review of cases which have led to illness or death of a patient, in order to collectively learn from these events and to improve patient management and quality of care.

Background

Morbidity and mortality reviews (MMRs) originated in America. Ernest Amory Codman, a prominent 20th century New England surgeon suggested that each patient should have an 'end result card' where details of care and outcomes were recorded and publicly available. The first recognisable MMR was held in 1935 and related to anaesthesia outcomes.

MMRs are a regular, organisationally convened meeting, predominantly involving medical practitioners (but increasingly multi-disciplinary) who gather to discuss selected cases for the purposes of clarifying medical management and to provide a forum for teaching and system level learning – focusing on patient safety and quality improvement, including the identification and reporting of errors.

Cases may be chosen because they meet specific criteria (for example, identified through an Adverse Occurrence Screening/Targeted case note review (AOS/TCNR) program) or because they are of interest as a learning exercise.

The frequency, length, method of selection and analysis of cases all vary considerably, therefore it is difficult to formulate an evidence base for MMRs as few are conducted in the same way.

The studies that have been conducted (as opposed to reports of outcomes of MMRs for individual services) indicate that they can be an effective tool for education and quality improvement, if a safe environment is established. Evidence of their ability to assist in the identification of errors is mixed.[4]

An effective MMR should:

- identify key events resulting in adverse patient outcomes
- foster open and honest discussion of those events
- identify and disseminate information and insights about patient care that are drawn from individual and collective experience
- reinforce system level and individual accountability for providing high quality care
- create a forum which supports open and honest discussion through the provision of a just, patient centred culture
- contribute to clinical governance processes.

[4] The literature review for *MMR* is available at www.health.vic.gov.au/clinicalengagement

Purpose

MMRs are primarily a tool for examining opportunities for system level improvement. The purpose of MMRs is not to assess an individual senior doctor's care per se, but to provide a forum or learning opportunity to assist system level improvement, based around the identification and discussion of key issues.

MMRs may provide information to support a greater understanding of clinical practice at the individual senior doctor or clinical team level, but only when conducted in a consistent, reproducible fashion within a 'just' culture which emphasises and supports clinical excellence through open discussion of key patient care issues.

Design principles for successful use of the tool

MMRs are most valuable as a driver of culture change and clinical improvement when there is:

- a focus on patient care
- support and leadership by senior medical staff – this ensures appropriate peer input and engagement
- a multidisciplinary approach with input from all staff involved
- a consistent and reproducible approach
- organisational support
- a clear link to organisational clinical governance processes.

In addition to these listed above, other key strategies which can contribute to the efficacy of MMRs as a quality improvement and learning process include:

- a safe and supportive environment
- a structured process, including a framework to investigate underlying contributing factors
- a detailed feedback and follow up program.

An example of a structured process is the Learning from a defect tool developed to enhance MMRs (Pronovost, Holzmueller & Martinez 2006). The tool is described as a shorter version of root cause analysis (RCA) and is intended to improve safety and teamwork culture, by providing senior doctors with a structured framework to:

- identify what happened with regards to the adverse event
- determine why the adverse event happened
- implement interventions to reduce the probability of its re-occurrence
- enable those involved to evaluate the effectiveness of those interventions.

To improve MMRs consider:

- a review of the literature relating to the particular case
- the use of summaries to allow doctors, particularly junior doctors, to write up the findings for publication.

How to undertake MMR meetings

MMRs should be undertaken at a level which ensures that peer input is appropriate and available. For smaller hospitals this may be at a whole of hospital or even an interhospital level. For larger hospitals, this may be at the level of a clinical service, department or unit. In general, the approach to developing MMR should mirror the organisational approach to AOS/TCNR, as the AOS/TCNR program should identify most of the cases to be discussed in a MMR setting.

1. MMRs should occur onsite.
2. MMRs should be chaired by a senior doctor who takes responsibility for the process and in doing so has an ability to engage with clinical colleagues and to facilitate change at the patient care level. This may be the medical director, unit/department head or delegate.
3. Where possible, MMRs should be regularly scheduled to maximise participation.
4. Members of other clinical disciplines and junior medical staff should attend.
5. Cases for discussion should be identified by:
    - AOS/TCNR programs
    - senior doctors raising specific cases
    - referral from other MMR meetings.
6. In order to provide sufficient time for adequate discussion no more than two cases should be discussed per hour, although aggregating cases with similar issues into a 'block' discussion may be appropriate.
7. Senior doctors and other clinicians actively involved in the care of the patient to be discussed must be made aware of the intention to discuss the case at least 72 hours prior to the case and must be made aware of the date, time and place of the meeting. If they are unable or unwilling to attend the meeting where the case is to be discussed, the case should be referred to the appropriate medical lead for further investigation or action. Cases must never be discussed in the absence of the senior doctors with primary responsibility for care of the patient.
8. Cases should be presented in verbal format in a de-identified fashion, describing only the facts of the case including any confounding factors.
9. The major issues should be identified during the presentation, with the chair providing further clarification if required.

10. The chair should ensure that following the presentation, the key discussion points are agreed. These should always include:
    - What went wrong (or right)?
    - How did it go wrong (or right)?
    - Why did it go wrong (or right)?
    - What could we do differently in future?
    - What are the key lessons for the organisation?
11. A consistent approach to problem solving should be used to discuss the case.
12. The chair should ensure that any discussion relates to the facts of the case and not to personal issues. This is not a meeting to attack or openly criticise individuals who have contributed to patient care – doing so impedes the development of a 'just' culture.
13. If major performance issues relating to an individual senior doctor become apparent at any stage during the discussion, the chair should immediately halt the discussion and refer the issue to the relevant medical lead (medical director, unit head or equivalent), who should then initiate the organisation's usual performance development processes. Discussion around other matters pertaining to the case may continue.
14. At the completion of the discussion, action points should be agreed and prioritised by all present in the meeting. Responses to these issues should be presented at subsequent meetings.
15. Minutes should be kept – patient and doctor details should be de-identified.
16. An action list and appropriate accountabilities should be generated and circulated to all participants and to appropriate organisation level clinical governance structures.

Critical risks to consider in using the tool

MMR meetings should be conducted with a view to enquiry for the purposes of improvement. They must not be perceived as being punitive. It must be safe for all participants.

The major barrier to effective MMRs is the focus on individual senior doctor rather than a more general, systems approach to issues. This results in a fear of incrimination and recrimination.

Significant problems with an individual's clinical care which are readily apparent to medical leaders should not be dealt with in an MMR process. Clinical performance issues related to an individual senior doctor would normally be detected through other mechanisms (for example, AOS/TCNR, repeated patient complaints). These issues should be managed using the *Partnering for performance* framework in line with the organisation's performance development and support policy. MMR is not the appropriate forum for this and indeed may be counterproductive.

Limitations for MMRs include:

- administrative issues – lack of data
- procedural concerns – includes hindsight and reporting bias, a focus on diagnostic errors, and infrequent occurrence of MMRs
- educational issues – lack of educational/system learning focus.

Victorian approach

All senior doctors working within Victorian public hospitals should participate in some form of regular (for example, as a minimum quarterly) MMR meeting as part of their commitment to their clinical governance responsibilities.

1. This should occur at a level which allows appropriate peer input into the process:
    - for small hospitals, this will generally be at the whole of hospital level
    - for larger hospitals this may be at the level of a unit or department (there would need to be sufficient senior doctors with the same skill set in the unit/department to ensure a degree of independence from the care of the patient)
    - MMR processes should be standardised – the approach outlined above is a suggested minimum, but organisations may extend this process as required.
2. MMR should consider cases primarily identified through the AOS/TCNR process, in addition to other cases of interest identified through other organisational processes.

An example MMR reporting pro forma is available at www.health.vic.gov.au/clinicalengagement

Example MMR meeting report

< Health Service >

< Unit / Department / Service > MMR meeting report

Date and time of meeting			Chaired by		
Present at the meeting					
Case(s) or issue(s) discussed (de-identified – brief description of case details only)	**Key senior doctors responsible for the care of the patient during this episode present for case discussion?**	**Major patient care issues identified by discussion**	**Proposed actions**	**Group or person responsible for actions**	**Follow up by unit/ service/department When? How?**
1.					
2.					
This serves as a record of this MMR			Signed by Chair		Date

- Copy of report to go into unit MMR files and to appropriate organisational clinical governance processes.
- Consider sending copy of report to all members of unit/department/service as record of minutes of the meeting.

Clinical audit

Definition

The systematic review of elements of clinical care against predetermined criteria, with the aim of identifying areas for improvement and then developing, implementing and evaluating strategies intended to achieve that improvement.

Background

Clinical audit is a cyclical process where individuals, teams or services:

- identify a clinical topic of interest or concern
- identify sources of appropriate data which will assist in assessing the topic, including medical records and feedback from senior doctors, other clinicians and consumers
- review the data against set criteria and standards
- identify areas for improvement
- implement those improvements
- assess the impact of those improvements.

Audits measure elements of care including structure, processes and potentially outcomes of care. Clinical audit can provide information about the quality of care provided in a narrowly defined clinical area (for example, a single disease state or a single presentation).

Clinical audit generally uses clinical level data and when managed by senior doctors has high levels of acceptability and is viewed as a valuable means of informing doctors about their care delivery. By contrast, traditional clinical indicators have less acceptability amongst doctors as their data sources may be non clinical data sets and because the measures chosen may not have local clinical applicability.

Professional bodies such as the medical colleges support and encourage their members and fellows to participate in clinical audit. Participation in clinical audit is mandatory as part of a continuing professional development (CPD) program for some specialist colleges.

Successful clinical audit requires:

- a clearly defined issue or problem
- an ability to measure clinically relevant elements of care which clearly reflect that problem
- an ability to apply that measure in a rigorous and consistent way which best reflects patient care
- an ability to change care processes to drive any subsequent improvement in the chosen measure
- sufficient resources to ensure that the work can be undertaken appropriately and in a manner which ensures clinician engagement and support
- clinical leadership.

The quality of the information obtained by clinical audit is a direct reflection of the design and conduct of the audit.

Clinical audit should always be subject to informal peer review to ensure local relevance and to maximise acceptance.

Two Cochrane systematic reviews and a meta-analysis have been conducted on the use of audit and feedback on professional practice and health care outcomes (Jamtvedt et al 2003; Jamtvedt et al 2006). The reviews show that audit has a moderate impact on clinical practice, but the impact of audit is dependent on the level of performance prior to the audit, and on the feedback process. The establishment of valid criteria, the training of reviewers, particularly if they are conducting their own audits, and the provision of effective feedback are important factors in the validity of the method.[5]

Comparisons between clinical settings are difficult as participants and the interventions themselves vary. Thus clinical audit should be seen as an organisation or service specific activity. In the absence of consistent processes for data management and reporting, considerable caution should be applied in interpreting inter hospital or inter unit comparisons.

Purpose

The purpose of clinical audit is to improve the quality of health care services by systematically reviewing the care provided against set criteria. To do so, there should be a clear understanding of current practice. This requires:

- clear and consistent definitions
- consistent and reproducible data sources
- an ability to change care delivery if improvement is required.

The gap between the criteria and the assessed performance provides guidance for prioritising improvement strategies.

Clinical audits that are ongoing and allow the monitoring of care over time may become 'clinical indicators' (see *Clinical indicator* tool). Clinical indicators based on ongoing clinical audit using clinical level data are likely to have significant clinical acceptability.

Clinical audit may, in certain circumstances, provide guidance around elements of an individual senior doctor's clinical performance (for example, colonoscopy perforation rates).

Clinical audit, if well designed, appropriately managed, resourced and supported by those senior doctors whose care is being audited, provides reasonable clinical level evidence of elements of a senior doctor's care delivery. Clinical audit will rarely provide evidence of 'whole of care'. For this reason, care should be taken in interpreting clinical audit information in the performance context. Clinical audit may provide an excellent opportunity to facilitate dialogue with senior doctors and enhance clinical practice.

[5] The literature review for Clinical audit is available at www.health.vic.gov.au/clinicalengagement

How to undertake clinical audit

The department is not prescribing a specific approach to clinical audit as there is considerable literature on the successful undertaking of clinical audit. Individual professional colleges often provide craft group specific guidance.

The department notes, however, the importance of ensuring sufficient resources to successfully complete the audit cycle and strongly encourages hospitals to work with their senior medical staff to design the most appropriate structure and supporting processes in the local context.

A useful resource to support the local development of clinical audit is the NHS National Institute for Clinical Excellence *Principles for best practice in clinical audit* (2002).[6] Professional colleges also provide guidelines for undertaking clinical audit.

Critical risks to consider in using the tool

Clinical audit will fail if key barriers are not addressed prior to the commencement of the audit process.

Key barriers include:

- lack of clarity re purpose of audit (what are we trying to achieve?) – audit must be framed around improving patient care and has no role as an investigational tool
- inconsistent approaches to data collection and management
- insufficient resources to support the audit process
- lack of expertise in audit project design and analysis
- lack of planning
- lack of medical engagement and leadership
- poor professional culture and poor relationships between professional groups and agencies, and within audit teams
- absence of trust between senior doctors and managers
- lack of integration with other activities (including clinical governance processes)
- an inability of senior doctors to change or improve the care processes being measured.

Clinical audit can provide a valuable source of data for reviewing elements of clinical performance. However, this data should not be used as the sole source of information to inform a performance development process for a senior doctor.

Victorian approach

Every senior doctor in Victorian public hospitals should be supported by their organisation to ensure they are involved in auditing elements of their clinical care on at least an annual basis. Ideally clinical audit should be ongoing to assist in the monitoring of care. Senior doctors should be involved in the management of clinical audit, including the design, oversight and subsequent improvement processes.

[6] More information is available at http://www.nice.org.uk/media/796/23/BestPracticeClinicalAudit.pdf

Clinical indicators

Definition

Clinical indicators are measures of elements of clinical care which may, when assessed over time, provide a method of assessing the quality and safety of care at a system level.

Background

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.

Clinical indicators are measures of the process, structure and/or outcomes of patient care. They are used by health systems and services, as well as accreditation and regulatory bodies, to identify areas of concern which might require further review or development. Clinical indicators identify rates of occurrences which are either under or over expected levels. They may also allow clinical care to be followed over a period of time, or to be benchmarked against other health care agencies.

Types of indicators include: rate based indicators, structural indicators, process indicators, outcome indicators, generic indicators, disease specific indicators, type of care indicators, indicators of function, modality indicators, professional indicators, patient safety indicators, clinical governance indicators, culturally specific/culturally sensitive indicators.

Clinical indicators are generally collected by organisations from a range of data sets including administrative data sets. Local or state based clinical audit programs (for example, *Vascular surgery audit program*[7]) may over time provide a reliable range of indicators.[8]

[7] More information is available at http://www.health.vic.gov.au/surgicalperformance/vascular.htm

[8] The literature review for *Clinical indicators* is available at www.health.vic.gov.au/clinicalengagement

Purpose

Clinical indicators have multiple purposes depending on the user (managers, senior doctors, regulators, patients) including to:

- document the quality of care
- benchmark care (to make comparisons over time and between services)
- make judgments about services
- set service or system priorities
- organise care
- support accountability, regulation, and accreditation
- support quality improvement
- support patient choice of providers.

Clinical indicators may point to system level issues, however they are rarely specific enough to provide an insight into an individual doctor's clinical performance.

Indicators are assessed on the basis of the strength of scientific evidence for their ability to predict outcomes. An 'ideal' indicator should be: (Mainz 2003)

- 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 to clearly identifiable events for the user (for example, it is relevant to clinical practice)
- permit useful comparisons
- evidence based.

As well as meeting these criteria, clinical indicators should: (Wollersheim et al 2007)

- 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
- measure the quality in a valid and 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 by 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
- be defined exactly and expressed as a quotient.

Any clinical indicator program must have been considered and developed with the involvement of the senior doctors concerned with delivery of the care measured by the indicator. Clinical indicator measures should also be made available on an ongoing basis to all senior doctors providing the care.

The Australian Patient safety indicators (AusPSIs) (developed in Victoria) are a set of indicators which monitor clinical outcomes.[9] These recently developed indicators are now being reported to hospitals. PSIs are measures of health care safety that make use of readily available hospital inpatient administrative data. There are varied views on use of administrative data for the purpose of understanding clinical practice. It should be acknowledged that PSIs are indicators – not definitive measures of the frequency of adverse events. Further investigation at the local or organisational level may occasionally be necessary to gain a greater understanding of these measures.

Where clinical indicators arise from clinically derived data sets (for example, clinical registry data) their acceptance by senior doctors is likely to be high.

Critical risks to consider in using the tool

Once the clinical indicator is implemented the results should be presented in such a way as to account for their causal and contributing factors including descriptions of the clinical context, socio-demographic variables of patients, and case mix.

Clinical indicators must:

- inform an improvement strategy, and therefore must be sensitive to improvements over time
- be technically robust and interpretable at the level of clinical care delivery
- be embedded in organisational governance systems with an emphasis on using this information to improve patient care.

Failure to do so limits the utility and acceptance of the indicator as a quality measure.

[9] More information is available at: http://www.health.vic.gov.au/psi/auspsi

Victorian approach

Clinical indicators may provide a means of understanding broad elements of patient care. Considerable caution should be demonstrated in attempting to link clinical indicators to an individual's clinical performance.

Careful judgment should be exercised by medical leaders where evidence and particularly repeated evidence of suboptimal performance is suggested by clinical indicators. This will rarely be attributable to individual senior doctors. Where there is a suggestion that this is the case, other corroborative evidence should be sought and carefully considered as part of an overall process of understanding an individual's performance. This process should always be medically led. Clinical indicators suggesting underperformance should be addressed using the *Partnering for performance* framework in line with the organisation's performance development and support policies, but should not be used as part of an individual's performance review process unless attribution can be clearly proven.

Clinical indicators should therefore only be used in the most general terms as part of an individual's ongoing cycle of performance development processes or a formal peer review process.

Clinical indicators should always be presented as part of an improvement strategy. Senior doctors must be actively engaged by the organisation to take ownership of the improvement process.

Where possible, senior doctors should be supported by their organisation to contribute clinical data to relevant clinical registries.

Patient satisfaction and complaints

Definition

Satisfaction – the degree to which the patient's expectations, goals and preferences are met by the health service.

Patient complaints – arise from dissatisfaction with elements of their health care experience.

Background

Patient complaints have long been used in the health system to measure dissatisfaction, but it is only in recent decades that formal patient satisfaction surveys have been used to endeavour to understand aspects of the quality of care. A link between this measure and patient safety has been made.

The measure of patient satisfaction and complaints is an attempt to capture elements of the quality of care as perceived by patients. These elements include: the art of care (caring attitude); functional quality of care; accessibility and convenience; finances (ability to pay for services); physical environment; availability; continuity of care; efficacy and outcome of care.

The evidence for the role of patient satisfaction data in quality improvement is mixed.[10] While some research reports no effect of feedback based on patient evaluations on behaviour change, other studies report the opposite. There is evidence that patient satisfaction survey data is under utilised by staff, which may help explain the reported lack of change. Measures relying on complaints have been shown to be more responsive to change than those relying on satisfaction measures.

High levels of patient satisfaction are however known to be associated with a more positive ongoing relationship with health care providers and with improved adherence to recommended care.

A major theme in the reviewed literature is the complexity of capturing a measurement of patient satisfaction that will accurately inform quality care improvement measures. That is, individual patient satisfaction may be influenced by many variables including: age, reported health status, ethnicity, gender, engagement with the system, faith and gratitude, perceptions of what constitutes 'good' physicians or care and time elapsed since receiving care.

Methodological issues associated with the evaluation and processing of complaints, the interpretation of complaint data and the process by which complaint data can best influence decisions about quality improvement have been examined.

[10] The literature review for *Patient satisfaction and complaints* is available at www.health.vic.gov.au/clinicalengagement

Adjustment for the variables that predict patient satisfaction scores is vital in gaining an accurate measure of patient satisfaction. It is also important to account for the effect of non participation by those with negative views and patient groups such as the elderly, confused and very ill from whom satisfaction data is difficult to obtain in collective patient satisfaction measures.

Patient complaint data have been used in the quality improvement process and have resulted in changes to policy and procedure. However, patient complaints may have detrimental effects on doctors and the relationship with their patients, as well as on fragile local health systems.

Complaints by health care providers (about other health care providers) are also an important source of information.

Measurement of patient satisfaction is now widely practiced across many health care settings. Patient satisfaction or dissatisfaction (and the complaints which subsequently arise from dissatisfaction) is thus an outcome of many different elements, many of which will be beyond the direct control of an individual doctor.

The Victorian patient satisfaction monitor (VPSM) monitors the level of adult in-patient satisfaction with the care and services provided by the State's public acute and sub acute hospitals.[11] It 'aims to elicit patients' perceptions about their health care experience so as to provide hospitals with vital information that will inform health service quality improvement' (Ultrafeedback 2008, p. 11). The survey is not intended to, and does not, provide feedback at ward, departmental or individual clinician level.

Purpose

Understanding patient satisfaction can contribute to a better understanding of the overall pattern of care delivery. Because of the broad based, multidimensional nature of patient satisfaction, it is rarely possible to draw significant conclusions about an individual senior doctor's performance, although multiple complaints about a specific individual should trigger further review. Patient satisfaction surveys and patient complaint data can be readily integrated elements of clinical practice improvement programs.

[11] Further information is available at http://www.health.vic.gov.au/patsat/index.htm

How to use patient satisfaction and complaints

The VPSM and individual organisation level patient satisfaction activities should be interpreted with considerable caution if considering them in the context of understanding the performance of an individual senior doctor. They should only be used in the most general terms as part of an ongoing cycle of performance review or a formal peer review process.

Patient complaints sometimes suggest direct attribution to individual doctors or teams. Patient complaints should be addressed according to usual organisational governance processes, but should not be used as part of an individual's performance development and support process unless attribution can be clearly proven.

Senior doctors should always be made aware of any complaint in which they are mentioned by name or implication. Cases of dissatisfaction in which attribution is apparent (for example, "I was unhappy with Dr X's approach to my care") should always be discussed with the senior doctor concerned by the individual's medical lead (medical director, unit head or equivalent) in an open and non judgmental fashion. A jointly agreed record of that conversation should be kept by the medical lead in accordance with the organisation's *Partnering for performance* policy. This record can then be used to inform ongoing performance development and support processes with the doctor and may, where appropriate, contribute to peer review processes such as re-credentialling.

Critical risks to consider in using the tool

The principal risk in use of patient satisfaction and complaints as a measure of 'quality' or 'performance' is the issue of attribution. Misuse of this tool carries significant risk to the organisation's relationship with senior doctors.

Victorian approach

Doctors should be made aware of any complaint about them. The doctor's medical lead (medical director, unit head or equivalent) should initiate further investigation of any cases of multiple complaints. Great care should be taken in using complaints or evidence of patient dissatisfaction in monitoring the performance of individual doctors.