The Australian and New Zealand Audit of Surgical Mortality (ANZASM)

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The Australian and New Zealand Audit of Surgical Mortality (ANZASM) programme has been operational for over 10 years, beginning in Western Australia. The Royal Australasian College of Surgeons became responsible for the management of the Western Australian Audit of Surgical Mortality (WAASM) in 2005. WAASM was modeled on the Scottish Audit of Surgical Mortality, which has operated since 1988. The College has expanded the program to all other states and territories under the umbrella of ANZASM since 2010.


Objectives

The principal aims of the audit are to inform, educate, facilitate change and improve quality of practice within surgery. The primary mechanism is peer-review of all deaths associated with surgical care. The audit process is designed to highlight system and process errors and to identify trends in surgical mortality. It is intended as an educational rather than a punitive process.

Structure and governance

ANZASM is managed by the Research Audit and Academic Surgery Division of the College. ANZASM oversees the implementation and standardisation of each regional audit to ensure consistency in audit processes and governance structure across all jurisdictions. The individual regional audits are funded by their departments of health. The College provides infrastructure support and oversight to the project. Participation by surgeons has been mandated as part of the College’s Continuing Professional Development program since January 2010. ANZASM receives protection under the Commonwealth Qualified Privilege Scheme, part VC of the Health Insurance Act 1973 (gazetted 23 August 2011).

Methodology

In brief, individual regional audits of surgical mortality are notified of in-hospital deaths associated with surgical care. The method of notification varies by region. In some regions this notification comes from the hospitals or another source that is independent of the surgeon. All cases in which a surgeon was responsible for, or had significant involvement in, the care of a patient are included in the audit, whether or not the patient underwent a surgical procedure.

The clinical details pertaining to the management of each case are recorded on a standard, structured surgical case form (SCF) completed by the consultant or treating surgeon associated with the case. The completed SCF is returned to the appropriate audit of surgical mortality audit office, where it is de-identified and sent for first-line assessment (FLA) by a surgeon with the same surgical specialty but from a different hospital. De-identification means the first-line assessor is unaware of the name of the deceased, the treating surgeon or the hospital where the death occurred.

There are two possible outcomes of this FLA:

- The information provided by the treating surgeon is adequate to reach a conclusion about the case and to identify any issues of management, if present.
- A further in-depth assessment (second-line assessment (SLA) or case note review) is necessary either:
  - for clarification of issues of patient management identified or suspected by the first-line assessor, or
because the information provided by the treating surgeon was inadequate to reach a conclusion.

Where an SLA is deemed necessary, assessors are selected using the same criteria as for first-line assessors.

Providing feedback

The principal aim of the ANZASM is education as a component of a surgeon’s continuing professional development (CPD). This is achieved by providing commentary obtained during the audit process directly to the treating surgeon as well as highlighting lessons learned from de-identified cases in a national case note review booklet. The individual regional audits also produce their own annual reports and case note review series, which highlight particular issues in patient management.

Reporting conventions

Reporting clinical incidents

In the structured SCF, the surgeon is asked to document whether there were any clinical incidents during the care of the patient and to describe the incident. The surgeon is asked to:

- report on the perceived impact of the incident on the outcome by stating whether the incident:
  - made no difference to the outcome
  - may have contributed to death
  - caused the death of a patient who would otherwise have been expected to survive
- provide their perception as to preventability, using the following categories:
  - definitely preventable
  - probably preventable
  - probably not preventable
  - definitely not preventable
- indicate which clinical area was most responsible for the incident/event:
  - audited surgical team
  - another clinical team
  - hospital
  - other.

First and second-line assessors also complete the same assessment matrix.

Analysis of clinical incidents

A primary objective of the ASM peer-review process is ascertaining if death was a direct result of the disease process alone, or if aspects of management of the patient might have contributed to that outcome. Where there is a perception that the clinical management may have contributed to death, ANZASM specifies a spectrum of criticism to be used by assessors:
• an area for consideration: where the assessor believes an area of care could have been improved or different, but recognises that the issue is perhaps debatable

• an area of concern: where the assessor believes that an area of care should have been better

• an adverse event: an unintended injury or event that was caused by the medical management of the patient rather than by the disease process, and which was sufficiently serious to lead to prolonged hospitalisation; or which contributed to or caused death. Specific complications (e.g. pulmonary embolus, anastomotic leak) are by definition always adverse events but may not be preventable.

Recommendations and key points from the 2012 National Report

The recommendations are as follows:

• Continue to increase active participation of surgeons and hospitals towards 100%.

• Aim for greater participation by the private hospital sector in New South Wales.

• Continue to observe for emerging trends in mortality and address these where possible through ongoing educative and interactive seminars.

• Clinical information on handover, delays in transfer, and procedure-related sepsis are ongoing issues that need to be addressed.

• Prepare and deliver a national case note review booklet twice a year for distribution to surgeons, trainees and other clinical staff involved in patient care.

• Ensure greater completeness and accuracy of the SCFs. The failure to fully complete the forms substantially detracts from data quality. Missing data in the SCF prevents assessors from reaching a conclusion regarding the need for further investigation and greatly reduces the amount of data available for analysis by ANZASM. Increased clinical information could, therefore, lead to a reduction in requests for SLAs being carried out.

• An infection and trauma question was introduced into the surgical case form in 2011. The data is currently too small to make any significant comment in this report.

• A review has commenced to streamline the current form to make it more efficient without detracting from the value of the data collection.

Accepted publications 2013

Consultant supervision in the operating theatre and post-operative complications in surgical death cases among states in Australia ANZ Journal of Surgery 2012: December 82(12):895-901


Evaluating the value and impact of the Victorian Audit of Surgical Mortality (VASM) – Accepted for publication July 2013, ANZ Journal of Surgery

The Western Australian Audit of Surgical Mortality – a 30% reduction in observed deaths over ten years – Accepted for publication October 2013, Medical Journal of Australia.