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# Australian Council on Healthcare Standards infection control clinical indicators

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The Australian Council on Healthcare Standards (ACHS) has recently published the *Australian Council on Healthcare Standards Clinical Indicator Users' Manual 2003*, which includes the recently developed Infection Control Indicators. This article describes the indicator development process undertaken with the Australian Infection Control Association (AICA) National Advisory Board.

For over 10 years, the Australian Council on Healthcare Standards has developed speciality specific clinical indicators. The earliest set of Hospital Wide Medical Indicators, measured (among other areas) hospital acquired infections including wound infection and bacteraemia. As clinical practice changed over time, it had become obvious that the indicators were not meeting the needs of clinicians in providing useful information for monitoring or improving infection rates.

From inception, all ACHS indicators have been developed in collaboration with the appropriate medical college, society or association. It was the ACHS and the Australian Infection Control Association that developed a specific set of Infection Control Indicators. Indicators need to be reflective of today's healthcare environment, be easily collectable and assist in providing information that can flag potential areas requiring improvement.

The ACHS has recently published the *Australian Council on Healthcare Standards Clinical Indicator Users' Manual 2003*, which includes the Infection Control Indicators. The indicators are in accord with those developed by the National Advisory Board to the Australian Infection Control Association (AICA-NAB). The AICA-NAB is a multi-disciplinary group with representation of infection control expertise from all regions of Australia and includes representation from the ACHS.

The published AICA indicators<sup>1</sup> were used as the basis for the development of the ACHS indicators. Surgical site infection surveillance targeted specific clinical areas either of high risk for a wound infection or of considerable socioeconomic consequence if infection occurred. These include hip and knee prosthesis, coronary artery bypass grafting, femoro-popliteal bypass procedures, open abdominal aortic aneurysm procedures, lower segment caesarean sections and hysterectomies.

As reported in the *Australian Council on Healthcare Standards Clinical Indicator Users' Manual 2003*, central line-associated blood stream infections (CLAB's) are responsible for 20–40 per cent of healthcare-associated blood stream infections and risk for occurrence differs amongst clinical units dependent on the type of line used and patient intrinsic factors. Therefore, CLAB's were targeted in intensive care units, haematology and oncology units.

The AICA-NAB developed standardised definitions of infection and of clinical indicators with the aim that in-house comparison of rates between surveillance periods could reliably identify a trend in, or maintenance of an acceptable rate. However, the AICA-NAB is mindful that the ACHS Evaluation and Quality Improvement Program members participating in the ACHS Comparative Report Service receive six monthly reports providing national aggregated rates to stimulate quality improvement. Individual results may be compared with the data presented in the ACHS Comparative Report, and the previous surveillance period. The aim is to reduce an organisation's rate to the comparative rate, or to that of

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the previous surveillance period, whichever is the lowest. As such, comparisons depend on sample size for surgical site infection surveillance, and the ACHS, in accord with the AICA-NAB, recommend that organisations which perform less than 100 major procedures of the same type, use alternative statistical analytical methods, for example process control charts, in conjunction with other quality improvement tools.

These indicators are in a pilot phase and data received will be analysed, taking into consideration issues such as validity, ease of collection and usefulness for quality improvement. The length of the pilot phase will be dependent on the volume and timeliness, which governs time to analyse the data received.

Areas such as multi-resistant organism surveillance have not been included in the 2002 collection period, as definitions are still under development. However, the ACHS have recommended that healthcare organisations continue to monitor those resistant microorganisms that are important to their patient population.

The ACHS have sought feedback and comment from its members regarding the use of the indicators. Health care organisations have received the results for the first half of 2002 and expect to receive the results for the second half of 2002 around April 2003. The indicators are available from the ACHS and member organisations can access the ACHS Clinical Indicator Users' Manual via the ACHS Website ([www.achs.org.au](http://www.achs.org.au)). Other interested parties can also obtain copies using the order form found on the ACHS Publications Service section of the Website.

The published indicators have targeted either speciality specific or unit specific areas. Therefore, smaller organisations that do not provide those services will not currently have indicator data to send to the ACHS for comparative reporting. The ACHS are therefore working towards developing indicators that may more accurately reflect the care provided by the smaller organisations. These may take the form of process indicators. The ACHS has advised those organisations with a small volume of cases (i.e., less than 100 surgical procedures of the same type per year) to continue to monitor their infection rates utilising other statistical techniques in preference to rate based indicators. Many organisations regard such infections as sentinel events and perform root cause analysis reviews when an infection occurs.

The ACHS and the AICA-NAB will continue to improve the current indicators and aim to develop future indicators that will assist organisations to collect relevant information, monitor infections within a statistically sound methodology. The process will include steps that identify indicators that measure various dimensions of quality, e.g., safety and effectiveness but also will focus on measuring outcomes. Professor Robert Gibberd at the Health Services Research Group, University of Newcastle, conducts the analysis and review of the ACHS indicator data results. Particular focus is directed at the potential gains that can be made when identifying the difference between the aggregated rate and comparing it to the 20th centile rate. The statistical methodology used for this is outlined in the ACHS publication '*Determining to Improve the Quality of Care in Australian Health Care Organisations Results from the ACHS Clinical Indicators Data 1998 and 1999*'. This type of analysis is dependent upon the size of the dataset and it will only be after the 2002 data becomes available that the ACHS and AICA-NAB will be able to decide on the most appropriate way of reporting the results. The review process also considers the indicator in terms of how easily the data can be collected, how useful the indicator has been for quality improvement, and any other feedback provided by the users. It is envisaged that the indicators will be due for review in 2003–04.

## Reference

1. Auricht E, Borgert J, Butler M, Cadwallader H, Collignon P, Cooper C, *et al.* Uniform national denominator definitions for infection control clinical indicators: surgical site and healthcare associated blood stream infection. *Australian Infection Control* 2001;6:47–51.