ADVERSE EVENTS – AT LAST A SCIENTIFIC WAY FORWARD?

Professor Stuart Whittaker, COHSASA's CEO, Dr Rod Smith, CEO of the Australian-based Patient Safety International, and COHSASA data co-ordinator, Petro de Beer.
Picture: Courtesy of COHSASA

In the first serious attempt to address levels of adverse hospital events in South Africa, early data from unprecedented pilot research in 24 public sector hospitals in the Free State show three times as many high-risk clinical management incidents compared with the developed world.

> *Adverse events are listed according to seriousness, with a Safety Assessment Code (SAC), going from level 1 (an incident leading to permanent disability or death) to level 4 (something likely to be a 'near miss').*

The research and any subsequent provincial government use of the Australian-developed comprehensive risk assessment system have profound implications for improving the public health system in this country – if embraced instead of feared by the authorities.

Two randomly selected samples of 12 intervention and 12 control hospitals are currently being monitored in a joint project by the Free State health department and the Council for Health Service Accreditation of Southern Africa (COHSASA). The aim is to examine whether the type, seriousness and association of incidents change positively as hospitals implement quality improvement programmes.

Known as the Advanced Incident Management System (AIMS), the computerised technique, developed over a decade by Patient Safety International, the commercial arm of the Australian Patient Safety Foundation, reports, monitors, analyses, and manages problems.

These range from near misses to sentinel events, across the entire spectrum of health care.

Senior hospital staff are trained to use COHSASA standards compliance information[1] to understand which system components may have contributed to the incident so that they can plan and implement lasting quality improvement interventions. Professor Stuart Whittaker, CEO of COHSASA, says 'It's about strengthening the system and moving away from blaming the health care practitioner or manager, so that they can be supported to minimise mistakes in the best interests of patients'.

Initial results, although based on relatively low-volume data, strengthen the argument for the widespread installation of such a system and may spur other provinces to emulate the Free State. The programme relies on health care workers being familiarised with the risk definitions before being asked to report incidents to a single (Cape Town-based) call centre.

Nurses trained and employed by COHSASA as data co-ordinators take callers (who are ensured confidentiality) through a 7 - 10-minute scientific drop-down menu list of questions about each adverse incident. An e-mail is then generated to the relevant hospital manager to enable immediate intervention. COHSASA also provides participating facilities with a weekly summary report that has a multi-column summary of events, most frequent incident types and factors contributing to specific categories of incidents (e.g. a fall). Adverse events are listed according to seriousness, with a Safety Assessment Code (SAC), going from level 1 (an incident leading to permanent disability or death) to level 4 (something likely to be a 'near miss').

Dramatic initial data

Australian Rod Smith, the CEO of Patient Safety International, cautioned that the less than 400 incidents reported to COHSASA so far 'may well be skewed towards SAC1 and SAC 2 (SAC2 is fairly severe, temporary disability, e.g. a fall and bad bone break). 'That's because at this stage people (Free State hospital staff) are more comfortable reporting "serious" incidents,' he explained.

Overall SAC1 incidents in the Free State pilot research account for about

8.5% of incidents compared with 0.4% for Australia and the USA (the only developed-world countries, besides New Zealand, to have so far installed the system). Overall SAC2 incidents at Free State hospitals stand at 21% versus 5% for Australia and the USA. A full 59% of clinical management incidents in the Free State pilot so far are SAC1 or SAC 2.

Viewed more closely, 80% of SAC1 and 47% of SAC2 incidents are in clinical management.

By comparison, in Australia and the USA, 46% of SAC1 and 22% of SAC2 incidents are in clinical management (based on 4.5 years of their data).

Whittaker and Smith are concerned that these initial findings might deter clinicians, hospital managers and/or their political superiors from engaging with the programme and appealed to them to 'see the bigger picture'. They stressed the anonymity of reporting plus the overall goal of improving systems rather than blaming hard-pressed individuals doing the best they could, most often under difficult circumstances. 'We are intent on establishing a non-punitive culture in South Africa – which means that hospital staff will not be afraid to report incidents and "near misses" and authorities will be able to get to the root of problems and design solutions around them'.

Global context

The World Health Organization (WHO) figures show that 10% of all patients admitted to hospital suffer adverse events (across all risk categories) and recently passed a resolution saying adverse events 'must be monitored'. Incidents in health facilities causing harm to patients through poor-quality care have emerged globally as one of the biggest causes of death and morbidity in the developed world. Half of serious incidents are considered preventable. However, the incidents of adverse events (patient safety) in developing countries (before the Free State pilot research) are unknown. All indications are that adverse events are both more common and of higher severity.

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Two years of research by COHSASA brought about two intersecting events that led to the current local research. First the WHO sponsored a study of medical records using a retrospective review and then COHSASA signed a distribution agreement with Australia's Patient Safety International for the AIMS software.

COHSASA currently has put 435 South African health care facilities through its Facilitated Accreditation Programme (FAP) aimed at quality improvement towards specific accreditation standards, of which 139 have been accredited (some more than once). At present 46 hospitals, clinics and hospices in the public and private sectors hold COHSASA accreditation.

HIV burden impacting on adverse events

Whittaker says the burden of HIV/AIDS is having a major impact on the quality of care patients receive and increasing the risk of serious adverse incidents. 'This is truly proving to be a vicious cycle, in spite of the best attempts at moving towards home-based-care.' He said the new AIMS programme would seek to identify the role that HIV was playing in both the generation and impact of incidents.

Provincial health services in South Africa serve 80% of the population and have few or no developed mechanisms to measure or address adverse events. Whittaker said that a key component of the AIMS and FAP programmes would be a Web-based quality information system that measures the performance of systems against quality standards, identifies deficiencies and tracks improvements.

This system, called CoQIS, allows health care managers to examine data in their hospitals and take steps to address deficiencies as soon as they are identified. The AIMS programme identifies weaknesses in both standards and their application in the delivery of health care.

Says Whittaker, 'Basically we want to empower health care workers on the frontline in the job they are best trained and most want to do, delivering optimal patient care'.

1. Whittaker S, Green-Thompson RW, McCusker I, Nyembezi I. Status of a health care quality review program in South Africa. *Int J Qual Health Care* 2000; 12: 247 - 250.

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