

# Delivering Safer Health Care in Western Australia:

## WA Sentinel Event Report 2006-2007



Delivering a Healthy WA



## Foreword



Safe, high-quality health care for all Western Australians continues to be a major priority for WA Health. With health care becoming increasingly complex, it is important that patients, their carers and families have confidence that our health system is focused on continuing to improve patient safety in all our public and private hospitals.

The Sentinel Event Program, introduced by WA Health in October 2003, is a fundamental component of WA Health's patient safety management system. It incorporates a broad clinical risk management approach to serious adverse events. The commitment by clinicians to report, investigate and analyse sentinel events has been integral to improving knowledge and understanding about how errors can be reduced and prevented in our hospitals.

The strength of the WA Sentinel Event Program lies in the ongoing commitment and collaboration between the department, health services, clinicians and consumers. This improves shared learning and clinical practice improvement across the health system.

The WA Sentinel Event Report 2006-2007 is our third public report that provides full information about the numbers and types of sentinel events that have occurred in our health services. The focus in 2006/2007 has been to improve the timely implementation of the recommendations which result from the investigation of sentinel events. This focus on better 'closing the loop' in order to prevent similar sentinel events in the future will continue in 2007-2008.

WA Health is committed to patient-centred care and to understanding what has happened when a patient's health care does not go as planned and why. Together with the systematic implementation of preventative strategies in our health system, we will continue to improve the safety and quality of health care delivery to the Western Australian community.

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Director General & Executive Chairman  
Health Reform Implementation Taskforce

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## Acknowledgements

The Office of Safety and Quality in Healthcare acknowledges and appreciates the input of all individuals and groups who have contributed to the development of this report and the Sentinel Event Program. In particular, we would like to recognise that this report could not be possible without the generous cooperation and commitment of the patients who suffer inadvertent and unintended harm whilst receiving care in our health system, and their families. From time to time, things go wrong. By reporting, investigating and sharing the lessons learned, we aim to reduce human error and its impact.



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## Executive Summary

Since October 2003, when sentinel event reporting was implemented in Western Australia, a total of 185 potential sentinel events have been reported. Twenty-nine of these events were considered to have been unpreventable, leaving 156 events for inclusion in the Sentinel Event Program.

A total of 47 sentinel events were reported during the 2006/2007 financial year; an increase on the 44 events reported during the 2005/2006 period.

Annual changes in reporting frequency are expected and, as observed in the National Sentinel Event report (referred to as the National Report in this document), the “numbers of events or incidents reported are expected to rise as confidence in the system grows” (Sentinel events in Australia 2004-05, AIHW, 2007).

The Sentinel Event database is a cumulative database, which changes over time as events are notified and investigated retrospectively. The number of events reported is expected to increase each year as hospital staff become more aware of the reporting process and appreciate the benefits that flow from comprehensive reporting and the action taken in response to reports (National Report, 2007). Another important factor contributing to the increase in reporting is the increase in hospital activity each year. It should also be noted that WA is the only state to have consistent reporting, investigation and management of sentinel events across both public and private hospitals. Clinicians and patients value this, as they can expect the same standards to apply across WA wherever they might be admitted.

In 2006/2007 the largest proportion of sentinel events reported to the Chief Medical Officer was classified as ‘other adverse events resulting in serious patient harm or death’. There were 30 events reported in this category, including events relating to complications of emergency/resuscitation management, complications of surgery, hospital process issues, and falls. The sustained level of events classified as ‘other’ may reflect an increased awareness of reporting and a strong and developing culture of trust in reporting matters of patient safety.

Timely reporting of Root Cause Analysis (RCA) recommendations and follow up of their implementation will continue to be the focus of the Sentinel Event Program in 2007/2008. This will further strengthen the coordinated approach across WA Health to prevent patients being harmed as a result of receiving health care, and emphasises WA Health’s commitment to improving health care systems and hospital environments.



## 1. Introduction

WA Health introduced the Sentinel Event Program in October 2003. The program is a fundamental component of WA Health's patient safety management system, and incorporates a broad clinical risk management approach to sentinel events. This includes notification, investigation and ongoing monitoring (see Appendix 1) to enable us to learn from relevant events that might not otherwise be identified.

Sentinel events are defined as rare, preventable clinical incidents that lead to, or can lead to, serious patient outcomes, including death.

Sentinel events often occur to very sick patients in very complex environments, such as intensive care units, operating theatres or during patient transport. This increased (and increasing) complexity of level of care, type of care, and the involvement of multiple teams means there are increased opportunities for vulnerabilities to emerge, for mistakes and errors to occur and, unfortunately, for sentinel events to happen.

In April 2004, the Australian Health Ministers agreed that all public hospitals notify to their State health department, or to an agreed third party, a set of eight nationally defined core sentinel events. Over and above the eight agreed categories, the WA health system also reports serious events that do not fall into any of the core categories. An event that cannot be defined as a core sentinel event has been classified as 'other adverse event resulting in serious harm or patient death' (see Appendix 1). Public hospitals and health services, including community groups, primary care units and licensed private health facilities are required to report sentinel events to the Chief Medical Officer, WA Health.

WA is presently the only state with a comprehensive Sentinel Event Program that focuses on all patients, whether they are admitted to a public or private hospital.

## 2. Sentinel Event Program 2006/2007

There has been considerable and ongoing discussion in Australia about how to best monitor sentinel events, and the Australian Commission on Safety and Quality in Health Care is about to review the classification and process methodology. This complements the extensive work being done by the World Health Organisation to develop health care systems that enable better definition of adverse events in health care.

Monitoring and reducing adverse and sentinel events is a complex and new field in health care and work is just starting on such aspects as the development of agreed terminology and methods for defining the scope, nature and impact of things that go wrong in health care. Until this classification system is formally agreed, WA is continuing to utilise the best available clinical and data management practices.

In WA, the recommended approach to sentinel event investigation is by Root Cause Analysis (RCA), which has been defined as "a comprehensive, system based response to adverse events, designed to identify actions capable of improving the safety of patients and reducing risk for the organisation" (Runciman B, Merry A, Walton M. Safety and ethics in healthcare: a guide to getting it right. Aldershot: Ashgate; 2007; pp217).

Analysis of sentinel event data must be treated with caution as, at present, it provides a very small data set and cannot be used to demonstrate statistically significant change. Rather, the purpose of this public sentinel event report is to describe the information that has been acquired thus far, and to show what has been learnt and what changes to hospital processes have been implemented to prevent similar events happening again. Mandatory reporting of serious adverse or sentinel events ensures investigation of contributing factors and development of recommendations to improve clinical practice and enhance the quality of care across the health system.

A new sub category was introduced in the 2006/2007 financial year: 'infection control breach'. Prior to 2006/2007, events of this nature were not separately recorded. This will lead to better identification of emerging trends and analysis of contributing factors, particularly in relation to hygiene and infection control.

In 2006/2007, 47 confirmed sentinel events were reported in Western Australia. These events are reported from both private and public health services and facilities. Fifty-nine possible sentinel events were reported to the Chief Medical Officer during 2006/2007. After investigation, it was established that 12 of the notifications were not sentinel events and did not have preventable factors. These events have not been further included in the data analysis.

It is important to note the value of the proactive approach to reporting all possible sentinel events taken by hospitals and health services. This provides assurance to patients and their families that there is a comprehensive safety net which identifies and investigates all possible serious sentinel events that might have preventable components.

This report analyses the 47 confirmed sentinel events; representing less than 0.01% of all public and private health service separations.

Of the 47 events in 2006/2007, 17 fell into the national core set of sentinel events (ie the eight nationally reported sentinel event categories); an increase compared to the previous financial year (2005/2006 - 13 events reported). The remaining 30 events did not fit the categories used to define the core sentinel events, and are discussed later in this section.



Table 1 shows the nine categories of sentinel events reported for each financial year since the program's inception in October 2003.

**Table 1: Reported sentinel events for WA public and private hospitals, 1 October 2003 to 30 June 2007**

Event category	2003/04	2004/05	2005/06	2006/07
1. Procedure involving wrong patient or wrong body part	1	10	5**	6
2. Suicide of a patient in an inpatient unit	1	1	5*	4
3. Retained instruments or other material after surgery requiring re-operation or further surgical procedure	1	5***	1	3
4. Medication error resulting in death of a patient	0	2	1	2
5. Intravascular gas embolism resulting in death or neurological damage	0	0	0	0
6. Haemolytic blood transfusion reaction resulting from ABO incompatibility	0	0	0	0
7. Maternal death or serious morbidity associated with labour or delivery	1	1	1	2
8. Infant discharged to wrong family	0	0	0	0
9. Other adverse event resulting in serious patient harm or death	19	23**	31	30
<b>Total</b>	<b>23</b>	<b>42</b>	<b>44</b>	<b>47</b>

Notes:

2003/2004 data comprises nine months only - 1 October 2003 to 30 July 2004.

\* An event reported in the 'other' category in the 2005/2006 sentinel event report has been amended and included in the 'suicide of a patient in an inpatient unit' category.

\*\* One event was not included in the report at the time of publication in 2005/2006.

\*\*\* One event reclassified to 'other adverse event resulting on serious patient harm or death'.

Table 2 shows the number of reported 'other adverse events resulting in serious patient harm or death' since the program began in October 2003. There were 30 events of this type reported during the 2006/2007 financial year; similar to the number of events reported during 2005/2006, with an increase in the reporting of hospital process issues and falls and a decrease in mental health issues. Analysis of hospital process events found that delayed treatment was a contributing factor in all of these events.

**Table 2: Analysis of 'Other adverse events resulting in serious patient harm or patient death' for WA public and private hospitals, 1 October 2003 to 30 June 2007**

Event sub category	2003/04	2004/05	2005/06	2006/07
Complication of anaesthetic management	0	1	0	1
Complication of emergency/resuscitation management	4	3	1	2
Complication of surgery (including post operative death)	8	6	7	6
Fetal complication of delivery (including neonatal death)	2	2	6	4
Hospital process issue (i.e. failure to access timely and appropriate care, poor planning of discharge)	3	9	7	7
Medication error with serious consequence (not death)	0	2	1	0
Patient absconding with adverse outcome	1	0	0	0
Other	1	0	5	3
Fall resulting in death**	-	-	2	5
Mental health incident**	-	-	2	1
Infection control breach***	-	-	-	1
<b>Total</b>	<b>19</b>	<b>23</b>	<b>31</b>	<b>30</b>

Notes:

2003/2004 data comprises nine months only - 1 October 2003 to 30 July 2004.

The addition of new sub categories in 2005/2006 and 2006/2007 as well as additional information provided after the publication of the 2005/2006 Sentinel Event Report has resulted in changes of events to different sub categories in 2004/2005 and 2005/2006.

\*\* New sub categories added for 2005/2006. These events would previously have been classified as 'other'.

\*\*\* New sub category added for 2006/2007. These events would previously have been classified as 'other'.

<sup>1</sup> The total number of separations is as received by Hospital Morbidity Data System by 12 September 2007 and is estimated to be 97% of the total for 2006/2007. Excludes unqualified (healthy) newborns, boarders, posthumous organ procurements, aged care residents, Ambulatory Surgery Initiative patients and funding hospital (duplicate) cases. Cases from non-WA hospital (Indian Ocean Territories) are also excluded.

### 3. Contributing system factors

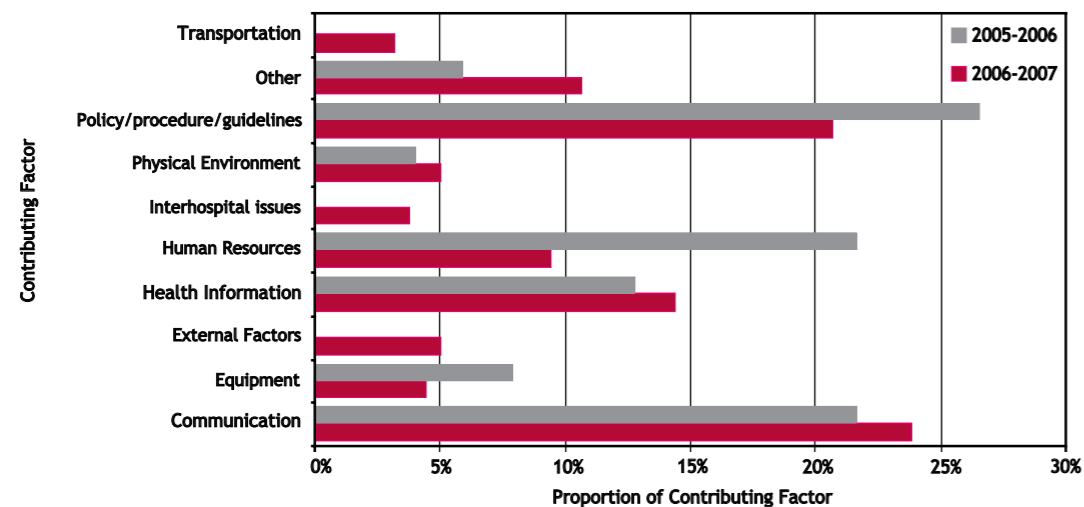
Investigation findings from 45 of the 47 sentinel events have been completed and forwarded to the Office of Safety and Quality in Healthcare by 31 August 2007. Two final reports are outstanding due to investigations not having been completed within the required policy timeframe of 45 days. Whilst extensions have been granted for both reports, closer management of sentinel event processes by hospitals and health services will be monitored in 2007/2008.

The eleven types of contributing factors categories are detailed in Appendix 2. The contributing factors have been categorised according to the classification system originally developed by the Department of Human Services, Victoria, and are broadly consistent with the conceptual framework for event classification currently under development by the World Health Organisation.

Classification of contributing factors is structured around event characteristics and distinguishing features associated with the patient. There may accordingly be multiple contributing factors for each sentinel event.

Figure 1 shows the factors contributing to all sentinel events reported in the 2005/2006 and 2006/2007 financial years. Consistent with other states and the National Report, communication and policy, procedure and guideline issues remain the major contributing factors to human errors resulting in sentinel events. All hospitals and health services are reminded that these remain fundamental and constant issues for system improvement in the WA health care system. Other factors that frequently contributed to sentinel events in 2006/2007 included poor health information and human resources.

**Figure 1: Comparison of Contributing Factors identified for Sentinel Events reported during the 2005/2006 and 2006/2007 financial years**



Note:  
Two events were not included in this figure due to investigations not having been completed during 2006/2007; they will be included in the 2007/2008 report.

Case examples and vignettes are a useful way of understanding how the sentinel event program operates and leads to improvement. Three examples, which are composite descriptions of events and based on typical RCA findings, are described. These patients are not actual patients in WA.

#### Case Example: Clinical Handover\*

Mr Smith, aged 54, presented to a small rural hospital on a Friday evening complaining of a sore neck, shoulder and chest pain. He said he felt generally unwell and on examination was hypotensive and experiencing breathing difficulties. A known insulin-dependent diabetic, Mr Smith was recovering from a recent stroke. Provisional diagnosis of either musculoskeletal pain or acute coronary syndrome was recorded and he was admitted to the hospital ward. An electrocardiogram (ECG) and troponin level were ordered by the doctor on duty and Mr Smith was treated with aspirin. The ECG was abnormal but didn't show specific changes consistent with myocardial infarction.

The ward staff were unable to get the blood sample for the troponin level as ordered; Mr Smith's continuing chest pain was reported to the doctor on duty by the night duty nurse. She did not advise the doctor that the blood sample was not taken and the doctor did not ask for the test result.

The next morning, the weekend on-call doctor reviewed Mr Smith. A repeat ECG showed minor but non-diagnostic changes. The doctor reminded the ward staff to take the blood sample and it was duly sent to the pathology service. On the Saturday evening the test results were faxed to the unattended GP practice. No results were sent to the ward.

Mr Smith continued to have intermittent chest pain over the weekend, but was not reassessed by a doctor. On Sunday evening Mr Smith complained of a sudden increase in chest pain and severe breathlessness. The ECG showed diagnostic changes consistent with an acute myocardial infarction. The on-call doctor was contacted and he ordered Mr Smith's immediate transfer to a tertiary facility. The Royal Flying Doctor Service arrived early Monday morning. During the aeromedical transfer, Mr Smith had a cardiac arrest and could not be resuscitated.

#### Recommendations arising from RCA

1. Review of hospital staff handover processes to ensure effective communication;
2. Review of communication protocol for staff with transferring responsibility for high-risk patients;
3. Diagnostic services to review processes for communicating and following up on critical test results at all times, including weekends;
4. Review of investigation and management pathways for time-critical clinical conditions.

All recommendations should be assigned to specific senior staff in the organisation for accountability and for follow up.

\* Note this is NOT a case from Western Australia. This is a composite incident. No real names have been used in this case example.

### 3.1 Wrong patient or body part, or wrong procedure

This category captures events in which a procedure (including surgery) was performed on the wrong patient or wrong body part. 'Wrong body part' also includes those events in which a procedure or surgery was performed on the wrong side of the body.

In 2006 the Correct Patient, Correct Procedure and Correct Site Policy and Guidelines for Western Australian Health Services was implemented. This provides a standardised approach for health professionals in WA hospitals and health services to prepare patients for surgical, anaesthetic, medical, radiology and oncology procedures - see [www.safetyandquality.health.wa.gov.au](http://www.safetyandquality.health.wa.gov.au) for more information.

In the 2006/2007 financial year there were six events reported involving the wrong body part. Each of these events involved different issues and there was no discernible repeating pattern to these events.

Analysis of these events demonstrates an increased awareness of reporting throughout hospitals due, in part, to the implementation of the Correct Patient, Correct Procedure and Correct Site Policy and Guidelines. The increased awareness throughout hospitals is not only in operating theatres but also in non-surgical areas such as diagnostics. There is now increased reporting from these areas in hospitals. Communication and policy, procedure and guidelines were the most common identified contributing factors, followed by issues related to health information. Examples of contributing factors include:

- Lack of policy and orientation information;
- Pressure to complete the patient list;
- Failure to follow existing policy;
- Communication of policy and confidence to insist on adherence to policies.

All hospitals should ensure that all clinicians and managers are aware of and have introduced the necessary procedures to comply with the Operational Directive 0004/06.

#### *Case Example: Busy departments and patient identification\**

Mrs Singh, aged 83, is a resident in a nursing home suffering from dementia who had an unwitnessed fall. Following the injury she was unable to weight bear and appeared to experience pain with assisted transfer. She was sent by ambulance to the nearest emergency department where she was immediately assessed. On examination it was noted that her left leg was shortened and externally rotated. An x-ray was requested. Emergency staff then received a normal hip x-ray report for Mrs Singh. As a result, the patient was discharged back to her nursing home as the clinical diagnosis of a fractured hip was not confirmed radiologically.

Two days later Mrs Singh was readmitted to the same emergency department with a referral from her GP. She was still unable to weight bear and was in obvious significant pain. In addition she had symptoms of a chest infection and demonstrated swelling and bruising over her left hip. Further x-rays were taken and a fracture of the left hip was identified. The previous films were called for comparison, however, there was no record of an X-ray being taken for Mrs Singh.

Investigation revealed that a different patient, also called Singh, had been x-rayed on the same day, and this patient's X-ray report had been sent to the Emergency Department when the staff requested the report for Mrs Singh.

Mrs Singh was admitted to the orthopaedic ward and had a surgical repair of her fractured hip performed the next day.

#### Recommendations arising from RCA

1. Audit of the patient identification, request, and reporting protocol in the Radiology Department;
2. Audit of the patient identification protocol in the Emergency Department;
3. Review guidelines for the assessment and monitoring of patients who are in pain;
4. Advise functional assessment by Community Care Team of all elderly patients attending the Emergency Department;
5. Advise senior medical staff review of all patients who are unable to walk if not being admitted from Emergency Department.

\* Note this is NOT a case from Western Australia. This is a composite incident. No real names have been used in this case example.

### 3.2 Suicide of a patient in an inpatient unit

This category includes incidents that occur while a patient is being cared for in a hospital or health service. There were four inpatient suicides reported during 2006/2007. This is one less than reported in the previous financial year.

The contributing factors were of the same types as reported in 2005/2006. Policy, procedure and guidelines, health information and communication were all common to these incidents. Examples include:

- High patient load resulted in patient being placed in a room near multiple exits, where observation was difficult and the patient was able to abscond;
- Failure to document changes in patient care and treatment over time.

### 3.3 Retained instruments or other material after surgery requiring re-operation or further surgical procedure

This category captures those events in which surgical instruments or other material, such as gauze swabs or packs, are inadvertently left inside a patient when an incision is closed. It also captures events where pieces of equipment break off during procedures.

There were three events of this type reported for the 2006/2007 financial year, two more than the 2005/2006 financial year. Two events related to retained swabs and one to a retained gauze pack.

The most common contributing factors were policy, procedure and guidelines and communication. Examples include:

- Lack of knowledge about the procedure;
- Documentation regarding swab count not correct and not communicated.



All hospitals are reminded of the fundamental importance of checking procedures relating to swab count (Australian College of Operating Room Nurses (ACORN) standards, 2004). As these errors often arise during prolonged and complicated operations it is especially important to ensure that count procedures are implemented and monitored during staff changeover or personnel change in the operating theatre.

### 3.4 Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs

This category includes events in which the death of a patient is reasonably believed to be due to the incorrect administration of drugs. This can include the wrong drug being given, wrong dosage, wrong route and inadequate surveillance (eg blood tests, clinical observation).

Two reported deaths were attributed to medication errors for 2006/2007. One death was due to a drug wrongly administered. The other was due to an allergic reaction to a drug.

A number of quality improvement initiatives have been implemented over the past two years to reduce medication errors in WA hospitals and health services. A standard inpatient medication chart was introduced in WA hospitals in 2006 to reduce patient harm resulting from errors in the medication documentation processes. In addition, the WA Pharmaceutical Review policy was released in March 2007. The process of pharmaceutical review outlined in this policy promotes improved medication safety for patients through the systematic appraisal of all aspects of a patient's medication management.

These policies were amongst the eight key safety and quality initiatives endorsed by the Australian Health Ministers in April 2004; the common goal being a reduction in the number of adverse events and improved patient safety. The policy framework will be further supported through the implementation of another evidence-based medication safety initiative that is currently being rolled out in WA hospitals under the umbrella of the Safety and Quality Investment for Reform (SQiRe) program - see [www.safetyandquality.health.wa.gov.au/squire/index.cfm](http://www.safetyandquality.health.wa.gov.au/squire/index.cfm) for more information.

The most common contributing factors to these events were communication, health information and policy, procedures and guidelines. Examples include:

- Misinterpretation of drug prescription;
- Absence of management plan;
- Non-compliance with protocols.

#### *Case Example: Autonomy, supervision, the value of non-medical professionals\**

Mr Reeves, aged 47, was admitted to the medical service of a teaching hospital with suspected vasculitis. When the initial diagnostic studies failed to provide a definitive diagnosis, the team decided to treat the patient empirically with high-dose steroids.

When discussing the patient on morning rounds, the senior registrar instructed the resident medical officer to "give the patient one gram of steroids". After completing his rounds (and doing some quick calculations), the junior medical officer ordered "Prednisolone 20-mg tabs, 50 tabs orally x 1 now".

After receiving the written order, the pharmacist contacted the resident medical officer to clarify the order. She suggested to the resident medical officer that the one gram of steroids was probably supposed to be given in an intravenous form. The busy and harried resident medical officer stated firmly that he wished to give the patient fifty 20-mg pills. When the pharmacist persisted in questioning the order and gently suggested that the resident medical officer may want to contact his senior registrar for clarification, the resident medical officer refused and replied "You can give it with a tablespoon of antacid".

The patient was brought fifty 20-mg pills of prednisolone and became increasingly angry and frustrated as he swallowed pill after pill. He developed mild nausea and heartburn while taking the prescribed treatment.

The following day, upon review of the medication record, the senior registrar identified the error. The oral prednisolone was stopped, and the patient was correctly given a gram of intravenous methylprednisolone. He eventually recovered from his vasculitis and was discharged in a stable condition.

#### Recommendations arising from RCA

1. Review training programs for medication supervision of resident medical officers.
2. Ensure mandatory attendance at resident medical officer training programs to ensure team approach with Allied Health professionals.

Note this is NOT a case from Western Australia. This is a composite incident. No real names have been used in this case example. This example has been modified from information on the AHRQ web site: [www.AHRQ.gov](http://www.AHRQ.gov)

### 3.5 Maternal death or serious morbidity associated with labour or delivery

This category captures those events in which there was death or serious disability associated with labour or delivery in a low-risk pregnancy while a woman was being cared for in a health service. The current national definition includes events that occur within 42 days post delivery but excludes deaths from pulmonary or amniotic fluid embolism, acute fatty liver of pregnancy or cardiomyopathy.

One death and one morbidity of this type were reported in 2006/2007. The National Report detailed 16 events of this type in 2004/2005 for Australia.

The most common contributing factors were human resources and physical environment. Examples of these include:

- Some items required to treat the patient were not available;
- Failure to consistently apply guidelines;
- Lack of a comprehensive orientation of staff to procedures;
- Lack of guidelines related to obtaining specialist advice;
- Uncoordinated approach to delivery of care.

## 4. Closing the loop

*“The value of reporting sentinel events is not in enumerating the events and, indeed, ‘true’ rates of adverse events are unlikely to be discoverable with certainty. A traffic analogy illustrates this point. If 1000 speeding tickets were issued on one day in a city, this does not mean that only 1000 motorists were speeding on that day. Nor does it mean that twice as many motorists were speeding on that day, if 2000 tickets were issued because of a blitz on detecting speeding. The same is true of adverse event reporting. Reporting is there to provide information for, and to help prioritise action - not merely for tracking purposes. It is the ability to understand why events occur, and take action to prevent them, that is the real value of reporting.”*

*(Sentinel events in Australia 2004-05, AIHW, 2007).*

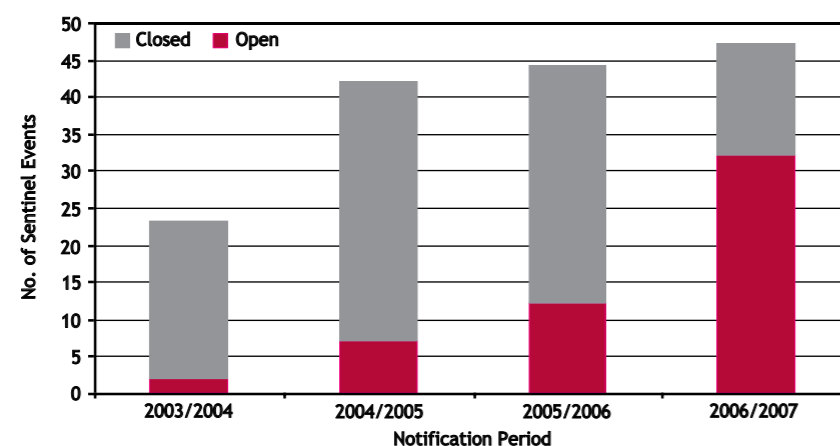
If reporting is to have an effective purpose, and if the system supporting it is to be accountable, investigations must be documented and reports must propose recommendations. Ultimately, action must be taken; action that remedies the situation that gave rise to the incident, and reduces the likelihood of similar events occurring. The loop must be closed.

Sentinel events are deemed closed when all the recommendations are reported as having been implemented by the relevant hospital or health service. When recommendations are implemented, safety and quality risks are presumed to be actively managed. In 2006/2007 only 15 out of 47 events (i.e. 32%) have been defined as closed as at 30 June 2007. Since the program was first implemented in October 2003, 66% of events have been closed (103/156). Figure 2 shows the number of closed and open sentinel events by financial year.

In order to promote the timely completion of the sentinel event process, hospital and health services are requested to rate the potential risk of each outstanding recommendation in their six-monthly status reports and add this risk to their own organisational risk registers.

This issue will be further audited in 2007/2008.

**Figure 2: The number of closed and open sentinel events by financial year**



Note:  
2003/2004 data comprises nine months only - 1 October 2003 to 30 July 2004

## 5. Sustaining the momentum into 2007/2008 and beyond

The establishment of the Sentinel Event Program has provided a crucial cornerstone for WA's clinical governance and safety management system, and has enabled significant progress to be made in the safety and quality of health care available to Western Australians.

To further improve assessment of serious adverse events, the Western Australian Review of Mortality Policy was introduced in 2006, with mandatory reporting required from January 2007 (see Appendix 3). This policy aims to reduce preventable deaths by ensuring all inpatient deaths are systematically reviewed and appropriate recommendations are made and put into effect.

In addition in 2006/07, the Patient First Program was implemented across the WA health system to educate patients and encourage them to take an active role in preventing adverse events by ensuring that they are well informed and involved in the delivery of their own health care and treatments. See <http://www.safetyandquality.health.wa.gov.au>

Health service personnel are actively encouraged to monitor and analyse clinical incidents and to implement strategies and solutions. Since 2004 the Office of Safety and Quality in Healthcare has provided training about RCA and human factors issues to more than 850 key safety management staff, and many hundreds more clinicians have been trained within hospitals.

WA Health continues to support hospitals in ongoing education and training, and helps them to improve the safety and quality of health care through activities such as:

- Train the Trainer courses in the Root Cause Analysis methodology (see Appendix 1);
- Notification of system-wide issues that require urgent attention - for example, through Statewide Patient Safety Alerts and Safer Practice Notices;
- Provision of information about trends in clinical incident reporting;
- Dissemination of knowledge essential to improving patient safety and quality;
- Participation in the implementation of the Open Disclosure process (see Appendix 3).

All those involved in clinical governance and safety in WA appreciate that the health system will face challenges as the program matures, as new analytic tools are developed, and as policies and systems are refined and integrated into the existing health framework. Many of those challenges are yet to be identified, or are in the process of being defined. Others are of immediate concern, and include timely:

- Conduct of RCA investigation of sentinel events;
- Reporting of achievable and measurable recommendations to the Office of Safety and Quality in Healthcare;
- Implementation of recommendations.

Great steps have already been taken to improve patient care and clinical standards in WA, largely thanks to the commitment and collaboration of clinicians, hospitals and Area Health Services and their support for the Sentinel Event Program. The ongoing commitment by the Area Chief Executives to standardised clinical governance structures, together with the establishment of the state-wide Clinical Governance Network in 2007, serves to strengthen the integrated management of safety, quality and performance information across the WA health system.

## APPENDIX 1 - Sentinel events: categories, notification, classification, investigation and monitoring

Table 1: Categories of Sentinel Event in Western Australia

1. Procedures involving the wrong patient or body part.
2. Suicide of a patient in an inpatient unit.
3. Retained instruments or other material after surgery requiring re-operation or further surgical procedure.
4. Intravascular gas embolism resulting in death or neurological damage.
5. Haemolytic blood transfusion reaction resulting from ABO incompatibility.
6. Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs.
7. Maternal death or serious morbidity associated with labour or delivery.
8. Infant discharged to wrong family or infant abduction.
9. Other adverse event resulting in serious patient harm or death.

### Sentinel Event notification

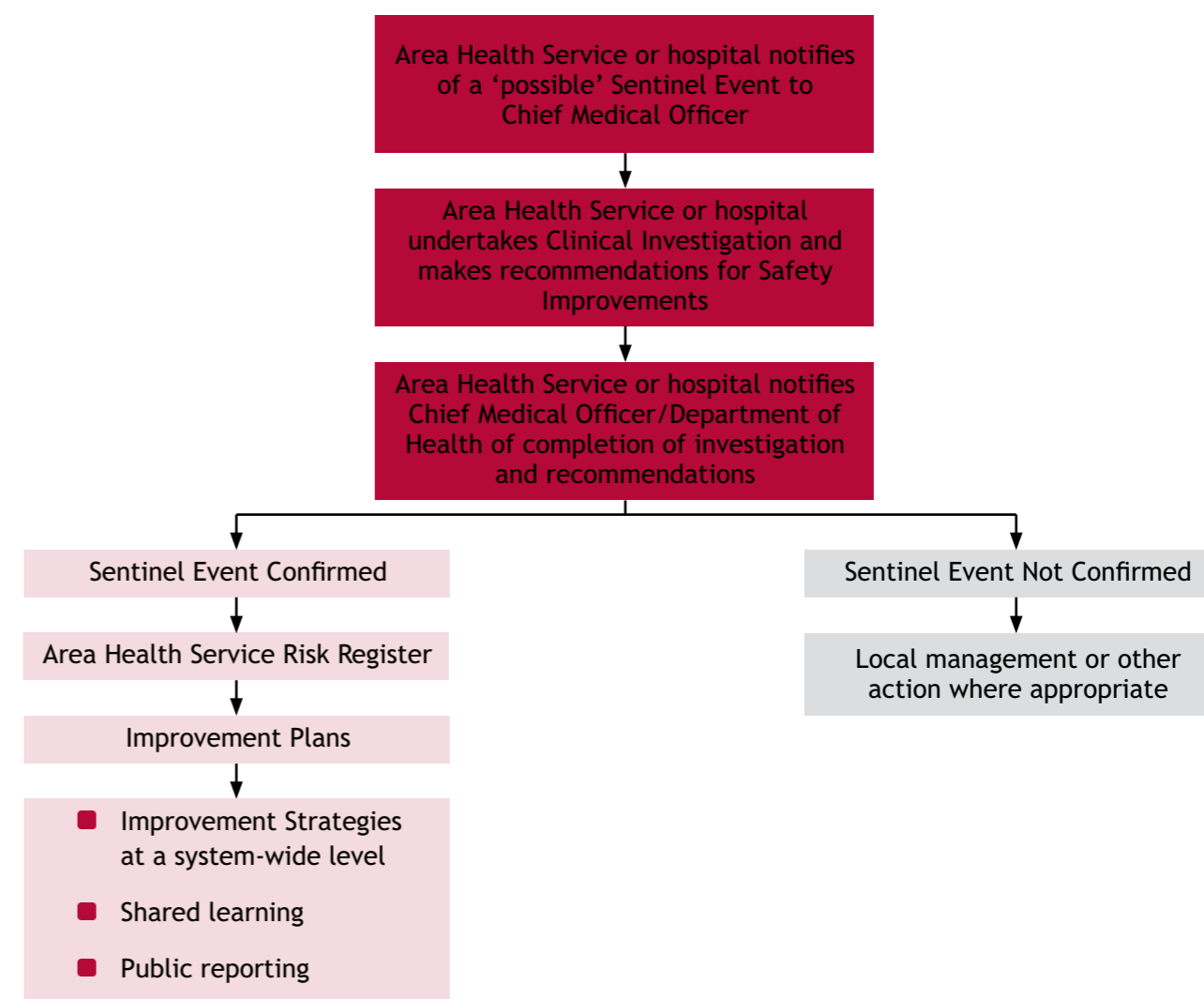
All public hospitals and health services and licensed private health facilities are required to report to the Chief Medical Officer any sentinel event which meets the criteria outlined in the *Sentinel Event Policy (December 2006)*.

WA Health welcomes all possible notifications as this encourages an ongoing commitment from hospitals and health services to actively report all concerns, and the desire to constantly learn and find ways to improve patient safety. Ultimately, this approach will help deliver the best possible care.

### Sentinel Event classification

When commencing a sentinel event investigation, each event is treated as a possible sentinel event until the investigation process has been completed (see Figure 1).

Figure 1: Algorithm for sentinel event reporting



Hospitals and health services have separate clinical governance and performance management processes in place to manage those situations in which there are suspected performance management or disciplinary issues.

### Sentinel Event investigation

Sentinel events can signal serious, and often multiple, breakdowns in health care systems and therefore require thorough investigation and response.

The investigation of a sentinel event involves a comprehensive and systematic analysis of the facts to identify all contributing factors - so that recommendations and strategies can be put in place to minimise the occurrence of similar events in the future. Investigations are conducted within the relevant hospital or health service by a multidisciplinary team of clinicians (see Sentinel Event Policy, 2006).



## Sentinel Event monitoring

On completion of a sentinel event investigation there will be a number of recommendations that outline strategies to reduce the risk of similar events occurring in the future.

These strategies are put in place by Area Health Service management and evaluated and monitored at the local level on a regular basis to ensure their effectiveness in improving patient safety.

Where strategies have been found to be very effective, health services are encouraged to share these lessons. They are also distributed through WA Health seminars and publications (eg the Sharing News in Patient Safety (SNIPtS) Newsletter).

Given the clinical complexity of many sentinel events, a high level confidential Sentinel Event Review Group assists the Chief Medical Officer to assess and comment on the de-identified investigation findings of reported events. The review group meets on a quarterly basis and consists of senior clinicians including the Chief Medical Officer, the Chief Psychiatrist, the Chief Nursing Officer and clinicians from teaching hospitals.

Where an investigation of a particular event identifies system improvements that apply to similar institutions, a Statewide Patient Safety Alert will be released.

State-wide policies, procedures and guidelines may also be introduced for issues or problems that have been identified as requiring formal intervention.

## APPENDIX 2 - Categories of Contributing Factors used in analysing Sentinel Events

1. Communication (communication between staff, communication between staff, patients and family members)
2. Equipment (faulty equipment, lack of equipment provision)
3. External factors (issues external to the reporting organisation)
4. Health information (documentation - or lack of - in medical record, communication of information between health service and external service providers)
5. Human resources (staff allocation, staff training, staff supervision, staff appraisals, recruitment)
6. Inter-hospital issues (issues with transfer of a patient from one health service provider to another)
7. Physical environment (issues with the physical environment of the health service or general suitability of the environment to support the function it is being used for)
8. Policy, procedures and guidelines (behavioural assessment, physical assessment, patient observation process, clinical management guidelines, identification process, coordination of care)
9. Translation issues (issues with translation of health information for a patient)
10. Transportation issues (issues with interagency or health service transportation of a patient)
11. Other factors (patient co-morbidities, patient factors)



## APPENDIX 3 - Safety Management Systems in WA health services and hospitals

Other clinical reporting and management systems contributing to improved care include:

- The Western Australian Audit of Surgical Mortality (WAASM) - an independent peer review audit that investigates deaths that occurred under the care of a surgeon.
- Coronial investigations into deaths occurring within the health system and reported under the *Coroner's Act 1996*.
- The recently introduced Western Australian Review of Mortality (WARM) policy that requires all inpatient deaths be reviewed. The WARM process provides an additional opportunity for standards of care to be reviewed after a death has occurred. Potential contributory factors such as inaccurate diagnoses, technical issues, errors or omission, commission and or decision-making may be identified through such reviews.
- A common medication chart was introduced in WA hospitals in 2006 to reduce patient harm resulting from errors in the medication documentation processes.
- The WA Pharmaceutical Review policy was released in March 2007. The process of pharmaceutical review outlined in this policy promotes improved medication safety for patients through “the systematic appraisal of all aspects of a patient’s medication management.”
- The Open Disclosure process is being implemented across the WA health system in 2006/2007. This process informs and assists the patient and/or carer if the patient experiences an adverse event. This is based on the premise that when a patient’s health care does not go as planned and the patient is harmed, the patient and/or carer have the right to know what has happened and why.

## Contact Information

For more information, consumers can contact their local patient liaison officers or complaint coordinators.

Consumers may also wish to contact the following agencies:

### Health Consumer Council of Western Australia

<http://www.hcc-wa.global.net.au>

Telephone: (08) 9221 3422

Freecall: 1800 620 780

Email: [info@hconc.org.au](mailto:info@hconc.org.au)

### Office of Health Review

<http://www.healthreview.wa.gov.au>

Telephone: (08) 9323 0600

Freecall: 1800 813 583

### Department of Health - Office of Safety and Quality in Healthcare

<http://www.safetyandquality.health.wa.gov.au>

Telephone: (08) 9222 4080

Email: [safetyandquality@health.wa.gov.au](mailto:safetyandquality@health.wa.gov.au)

