

Lessons from the sentinel event casebook

A patient was admitted to the intensive care unit (ICU) with pneumonia. Due to their respiratory distress the patient required mechanical assistance to support their breathing; therefore the decision was made to intubate the patient. Whilst the medical and nursing team were preparing for the intubation, the patient was given an intravenous dose of the muscle relaxant Rocuronium after staff misinterpreted the conversation as an order to proceed. The patient became paralysed prior to staff being fully prepared and required immediate intubation. The patient was stabilised and following a short stay in ICU they were discharged home to the care of their family

What were the major contributing factors in this case?

- Absence of a call back system for medication administration during an elective intubation may have contributed to the clinical staff's misinterpretation of the verbal order.
- Multiple medications prepared ahead of the scheduled time for administration.
- Labels not easily readable on the prepared medications.

How did the health service address these issues?

- Implemented a formal call back system for all clinical situations where verbal orders exist.
- Introduced syringes with red plungers for all areas where intravenous muscle relaxants are administered.

On review many services provide red barrel syringes for muscle relaxants in specialty areas, such as anaesthetics and ICUs as an alert to staff.

Does your health service use coloured syringes for muscle relaxants? Is this standardised and informed throughout your organisation?

How are your staff informed that this is standard practice?

Managing patients in single rooms – are you prepared for the unexpected?

A patient was undergoing haemodialysis, and being nursed in a single room. One of the dialysis machine alarms was activated when the patient reached for their book from the bedside locker. Staff attended to the patient, reset the alarm and left the patient resting. A short time later the patient complained of feeling cold and requested a blanket. Staff ensured the patient was well covered before leaving to attend to their other patients. A second dialysis machine alarm was triggered shortly afterwards, this remained undetected by staff that were in other patient and procedure rooms attending to patient care. On checking the patient for routine observation, the patient was

found unresponsive with blood dripping onto the floor, requiring an emergency response call and transfer to ICU for fluid replacement.

The blankets had obscured the dialysis machine connections from the staff's view, and the intravenous line had disconnected.

What were the major contributing factors in this case?

- Background noise from the TV and radio units prevented the alert from attracting the staff's attention.
- Absence of a standard operating procedure ensuring all luer lock connections remain visible to staff (above the bed linen).
- There was no standard procedure to double check that line connections are secured.

How did the health service address these issues?

- Dialysis patients wear headphones to reduce background noise from TV and radio units.
- Procedure introduced to ensure luer connections remain visible to staff at all times.
- Protocols introduced that incorporated double checking of all dialysis/connection lines.

Could this happen in your unit?

How responsive are you to machine alarms?

Snapshot of the Victorian health system

The Victorian health system is a complex and busy environment. Did you know that in the 2006–07 reporting period, the Victorian public health system dedicated an estimated \$9,061 million¹ to health care, employed around 66,460² EFT (equivalent full time) staff, managed approximately 1.3 million³ admissions to public health facilities, and performed more than 254,000⁴ surgical procedures?

1 Department of Human Services

2 Workforce Survey data, Service and Workforce Planning, Department of Human Services

3 2006–07 Public Hospital VAED (consolidated file: 19 September 2007)

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Update on sentinel event program

In 2006–07, the department was notified of 97 sentinel events and 80 were analysed. Fifteen events were withdrawn because these resulted from known complications of the patient's condition or required procedure, and others were withdrawn because no system or process issues could be identified. Two reports were not available for analysis at the time of writing this report.

The overall number of events reported is less than previous years. It is believed to be due to the effectiveness of the department's Clinical Risk Management (CRM) education program undertaken since 2005. The development and subsequent rollout of the Root Cause Analysis (RCA) education program has provided staff

Lessons from the Sentinel Event Casebook continued...

with a better understanding of clinical risk management and the reporting requirements. Trends have been consistent over all reporting periods, and there has been no significant shift in reported events.

Sentinel events reported under the 'other catastrophic events' category remain the major reporting category in 2006–07, with 45 per cent of all events reported in that category.

During 2006–07, a total of 305 contributing factors were identified.

Analysis of data shows that 'procedures and guidelines' and 'communication' continue to be the most commonly occurring system factors for 2006–07.

Included in the report is a one page patient safety checklist for health services to use as a quick guide to assess issues identified from the program locally. This is strengthening the learning organisation concept and way forward for the sentinel event program.

Updates and alerts on Therapeutic Goods Administration and Standards

Both Standards Australia and the Therapeutic Goods Administration (TGA) provide a free update service to ensure you are working with current and up to date standards and practices.

Standards Watch is a free email service run by the publishers of Australian Standards that gives registered users weekly notification of any changes in their listed areas of interest. Standards Watch is available at:

www.saiglobal.com/shop/Script/AboutRegUser.asp

The TGA has 3 areas that users can subscribe to free of charge to obtain information. These areas are TGA News, Australian Adverse Drug Reaction Bulletin and National Drugs and Poisons Scheduling, available at;

www.tga.gov.au/ndpsc/ndpsc-subscribe.asp

Adult Retrieval Victoria

The Victorian Adult Emergency Retrieval and Coordination Service (VAERCS) has been replaced. Adult retrieval services are now managed by the Metropolitan Ambulance

Service, with key service partners, and has been renamed Adult Retrieval Victoria (ARV). This service is responsible 24hrs a day statewide for;

- providing expert clinical advice by telephone
- providing adult emergency retrieval services for critically ill patients
- coordinating access to critical care beds

For further information on ARV go to; www.arv.vic.gov.au

Potential for Error – Medication administration.

A number of recent events and near misses highlight a need for clarity regarding the administration of oral analgesia with similar sounding names.

The existence of confusing drug names is one of the commonest causes of medication error and is of concern worldwide, reported the World Health Organisation (WHO) collaborating centre for patient safety solutions.

The Victorian Quality Use of Medicines Network has explored local views and suggested remedies to the number of reports of near misses resulting from confusion between the preparations Oxycontin[®], OxyNorm and MS Contin[®].

A range of strategies have been employed to minimise these risks including:

- pharmacist-led continuing education sessions
- physical separation of stock
- colour coding shelves where these items are stocked
- clear and consistent annotation of drug charts
- tall man lettering, that is oxyNORM[®], oxyCONTIN[®] and MS contin[®]
- coloured posters on controlled drug cupboard doors
- replacement of the MS Contin[®] preparation with the Kapanol[®] SR formulation
- approaching the manufacturers to request a name change
- remove ward stock and supply on an individual patient basis
- minimise strengths and formulations available on stock

The following annotation of medication charts has been suggested:

Prescription	Annotation
OxyNorm	oxycodone capsule
Oxycodone IR	OxyNorm capsule or Endone tablet
OxyContin	oxycodone SR tablet
Oxycodone SR	OxyContin tablet
Morphine SR	MS Contin SR tablet or Kapanol SR capsule

A proposal has been put to the Quality and Safety Branch, New South Wales Health, by the New South Wales Therapeutic Advisory Group, to issue a safety advisory bulletin on the confusion around 'oxy' products. The Therapeutic Goods Administration has also been contacted requesting a review of OxyContin, OxyNorm and MS Contin nomenclature.

A 'fail-safe' resolution to this issue has not yet emerged.

New South Wales Health has just released a safety 'alert' on this topic, which will be available at;

www.health.nsw.gov.au/quality/sabs/index.html

For further information about High Risk Medicines, please visit the following website:

www.health.vic.gov.au/vmac/projects/hrm.htm

How does your health service address communication, administration and storage of like sounding analgesics?

Risk Watch is produced by The Quality and Safety Branch Department of Human Services 50 Lonsdale Street GPO Box 4057 Melbourne Victoria 3001 Telephone 03 9096 8558 email: riskwatch@dhs.vic.gov.au Clinical Risk Management website: www.health.vic.gov.au/clinrisk