



Department of Health
Government of Western Australia

**Report on WA Data collected by the
Australian Incident Monitoring
System (AIMS)**

1 October 2005 to 30 December 2005

Office of Safety and Quality in Health Care

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EXECUTIVE SUMMARY

Data for this report were extracted on 17 February 2006, and covers all incidents reported to AIMS from 1 October 2005 to 30 December 2005. Readers are reminded to note the limitations to the data, outlined in the caveats section at the end of this report.

WA Trends

- The greatest proportion of incidents result in a minor outcome that does not require additional treatment.
- *Falls* and *medication* continue to be the two most common types of reported incidents.
- The majority of falls involve elderly patients (>70 years of age) and result in a minor outcome not requiring additional treatment.
- Omissions and overdoses are the most common types of reported medication incidents.
- The vast majority of medication incidents result in little or no serious injury to the patient.

RESULTS

Principal Incident Type (PIT)

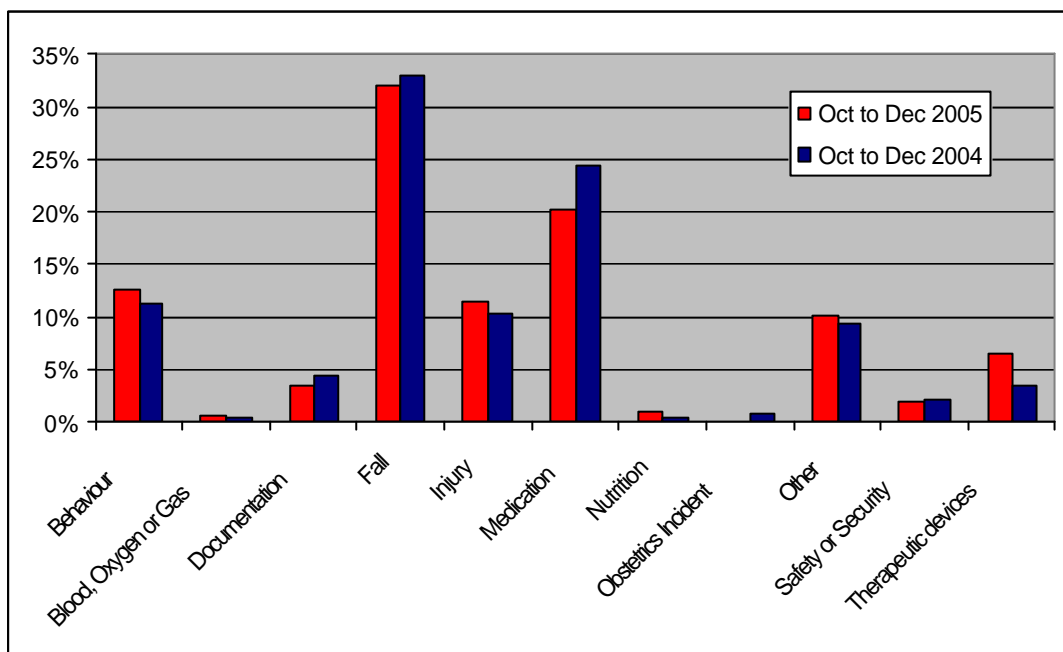
Each incident is classified a Principal Incident Type (PIT). A PIT is the component of the incident that is considered to have caused the most harm to, or had the most significant affect on, the subject. The ten PITs in the classification system are detailed below:

- behaviour;
- blood, oxygen or gas;
- documentation;
- fall;
- injury;
- medication;
- nutrition;
- other;

- safety and security; and
- therapeutic devices.

Figure 1 shows that *falls* and *medication* remain the most commonly reported incident types to AIMS. Compared to the corresponding quarter for the previous year, the October to December 2005 quarter has seen a decrease in the reported number of *falls* and incidents involving *medication*. This quarter has also seen a decrease in the number of incidents classified as *other*, *behaviour*, *injury* and *documentation*.

Figure 1: All reported incidents by Principal Incident Type, October to December 2004 and October to December 2005



The Principal Incident Type category: *Other* consists of the following:

- No or delayed admission, inappropriate bed or ward;
- No, wrong or delayed diagnosis;
- No, wrong or delayed procedure, treatment or assessment;
- Medical emergency;
- Poor discharge planning;
- Hospital acquired infection;
- Wrong patient or body part or side; and
- Other (eg. post operative or procedural complications, specimen not transported as requested, premature discharge).

Incident Outcomes

Each incident is assigned an incident outcome level ranging from 1 to 8. Levels 1 to 2 represent potential incidents (i.e. near misses) and Levels 3 to 8 represent actual incidents. Table 1 provides a definition of the outcome levels. As can be seen below, over half of incidents resulted in a Level 3 (no outcome) or Level 4 (extra observation) during the October to December 2005 quarter. Almost one quarter (24%) of incidents resulted in a level 5 outcome during this time period.

Table 1 : All Reported Incidents by Outcome Level, October to December 2004 and October to December 2005

	October to December 2004 (% of incidents)	October to December 2005 (% of incidents)	Outcome Definition
1	0%	0%	A dangerous state or the possibility of harm occurring.
2	2%	1%	An event occurred but was intercepted prior to causing harm.
3	27%	30%	An event occurred with no adverse outcome.
4	30%	28%	An event occurred resulting in a minor outcome (eg. extra observation).
5	25%	24%	An event occurred resulting in a moderate outcome (eg. minor diagnostic investigations or treatment).
6	11%	13%	An event occurred resulting in a moderate outcome (eg. diagnostic investigations, surgical intervention, or treatment with another medication).
7	4%	4%	An event occurred resulting in significant outcome (eg. hospital admission, increased length of stay, morbidity which continued on discharge).
8	0%	0%	An event occurred resulting in permanent disability or death.

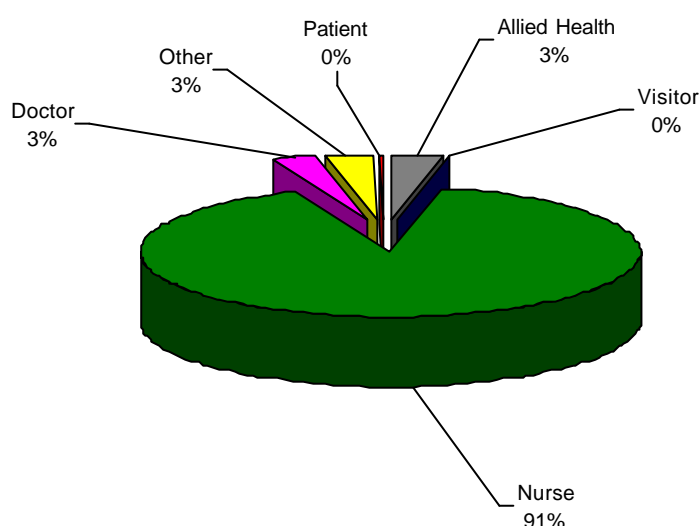
Reporter Classification

Figure 2 shows the proportion of incidents reported by health care professionals and non health care professionals. As can be seen below, nurses continue to report the majority (91%) of incidents. Doctors and allied health professionals each reported 3% of the reported incidents.

Nurses typically reported *falls*, *medication* and *behaviour* incidents. Allied health professionals generally reported *documentation* incidents and doctors tended to report *other* incident types (eg. no, wrong or delayed diagnosis, procedure, treatment or assessment).

It is important to note that AIMS is one incident reporting system of several parallel and complementary reporting systems, so although doctors report only relatively few incidents to AIMS, they do report to other incident reporting systems such as sentinel events, statutory notifications to Chief Psychiatrist, Anaesthesia Mortality Committees or Coronial notifications, ensuring the full complexity of clinical incidents are identified and managed.

Figure 2: All incidents by reporter classification, October to December, 2005



Falls

Analysis of *falls* data for the October to December 2005 quarter reveals the following:

- The majority of reported *falls* (71%) occur in the elderly population (70 years +). *Falls* were highest in the 75 to 84 age group, comprising 36% of all reported *falls*.
- The greatest proportion of *falls* occurred on the same level (27%). The incidence occurring on the same level (27%) is similar to that recorded at the same time last year (26%). The number of *falls* from beds and cots (13%) is the same as it was this time last year (13%). There was a 2% decrease in the number of patients falling while going to and from the toilet (14% in 2005 compared to 16% in 2004).
- 47% of reported *falls* resulted in a level 4 outcome and 25% of *falls* resulted in a level 5 outcome. A serious to significant outcome (Level 6 or 7 or 8) occurred in approximately 12% of falls.

- The greatest proportion of *falls* did not result in any injury at all (49%). A sizable proportion of *falls* resulted in abrasions, lacerations or a skin tear (21%). A small percentage of falls resulted in pain (11%) or bruising/reddening/swelling of area (12%). Only 3% of *falls* resulted in serious outcomes, such as altered emotional states, unconsciousness or fracture.
- Over half (58%) of patients who fell were dependent on staff. A quarter of patients who fell (27%) were dependent on mobility aids and 13% were independent. Of those who fell, 52% had been risk assessed, and a further 34% of these had had risk strategies implemented.

The most frequent patient contributing factors to falls included:

- Pathophysiological (49%);
- Physical impairments (47%);
- Other (40%);
- Failure to follow advice or instructions (47%);
- Confusion or disorientation (24%); and
- Dementia (21%).

Contributing staff factors to falls included:

- Insufficient or inadequate staff (2%);
- Other (1%);
- Distraction or inattention (1%); and
- Failure to follow advice or instructions (1%).

Readers should note that one incident can be classified with one or more contributing factors, and thus the total of contributing factors will often exceed 100%.

Numerous initiatives to prevent fall incidents from occurring have been implemented to improve patient safety. Some of these include:

- Regular toileting and bladder management protocol;
- Supervision of patient mobility;
- Supervision of patients during showers;
- Ensuring walking aids are within easy reach;
- Confused patients are reorientated, and are placed in a room that is visible from the office;
- Risk assessment of patients aged over 75 years on admission;

- Placing patients with an increased risk of falling in a room that is visible from the nurses station;
- Falls forum workshops for participants and interested parties;
- Site bases-education sessions; and
- Implementation of environmental audits.

Medication

Analysis of *medication* data for the October to December 2005 quarter reveals the following:

- *Medication* incidents typically resulted in a Level 3 (55%) or Level 4 (25%) outcome.
- 83% of all reported *medication* incidents resulted in no injury to the patient.
- Failure to read or misreading documentation remained the most common cause of *medication* incidents in the October to December 2005 quarter (38%). Failure to follow policy or procedure was another leading cause of medication incidents (32%). Staff misreading or not reading documentation is the most common staff contributing factor (29%). Other factors include failure to follow policy or procedure (26%) and inadequate knowledge or inexperience (10%).

Omissions

- Omission was the most frequent type of medication incident, and accounted for 32% of medication incidents.
- Frusemide [diuretic] was the most common medication involved in omission. However, a large proportion of frusemide incidents involved several incidents of omission for the same patient.

Overdose

- Overdose was the second highest medication incident, and accounted for 17% of all reported *medication* incidents.
- Panadol was the most common medication involved in overdoses.

Numerous initiatives to improve medication safety have been developed and put in place to prevent medication incidents from occurring. Some of these include:

- reducing distractions for nursing staff (e.g. ensuring basic drinking cups, clean medication cups and full water jugs are available so staff do not have to continually return to the kitchen);

- development of insulin infusion guidelines to improve clarity for nursing/medical practice;
- development of anticoagulation prescribing guidelines;
- development of an anticoagulation medication chart;
- development and introduction of a thrombo-prophylaxis policy; and,
- patient education and discharge management checklist.

APPENDIX ONE - CAVEATS

Readers of this report are advised to note the following limitations to the data collected by AIMS. Firstly, the literature suggests that approximately 10% of patients admitted to acute care hospitals experience some kind of iatrogenic injury. The Australian Patient Safety Foundation, developers of AIMS, estimates that there is under-reporting of incidents. Consequently, we cannot assume that the data is representative of all incidents. Secondly, AIMS has been implemented across the state however not all health services (particularly some rural sites) are using the system to full capacity. Thirdly, there is a time lag between data collection, data entry and coding.

Duplicate reports

There are a number of safety nets in the AIMS process to minimise or avoid duplicate records entering the system:

- The person raising the form puts a note in the medical record advising that an AIMS form has been raised. This reduces the risk for a duplicate if the medical record is checked.
- The AIMS forms usually go through the same, or a small number of Senior Staff or Department Heads for investigation and sign off. It is likely that they would recognise a duplicate case.
- One person usually performs the data entry task. This person is likely to recognise a duplicate when keying.
- A specific coder codes for a specific site. This presents a final opportunity to identify a duplicate for the same patient.

The chances of getting a duplicate record into the system are rare, but not impossible. Were duplicates to enter the system they would have little effect on the quality given the volume of data.