

ANNUAL REPORT

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

1 July 2003 to 30 June 2004

Office of Safety and Quality in Health Care

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EXECUTIVE SUMMARY

Data for this report were extracted in September 2005, and cover all incidents reported to Australian Incident Monitoring System (AIMS) from 1 July 2003 to 30 June 2004. Readers are reminded to note the limitations to the data, outlined in the caveats section at the end of this report.

WA Trends

- The reporting rate is approximately 6% of all inpatient admissions for hospitals and health services using AIMS.
- The greatest proportion of incidents result in a minor outcome that does not require additional treatment.
- *Falls and medication* are 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.

RESULTS

At 30 September 2005, 23 189 incidents had been coded for the 2003-04 financial year. Review of the Hospital Morbidity Data System figures reveals that there were 401 953 inpatient admissions recorded for all the hospitals and health services using AIMS in 2003-04. This represents a reporting rate of 6%.

Principal Incident Type

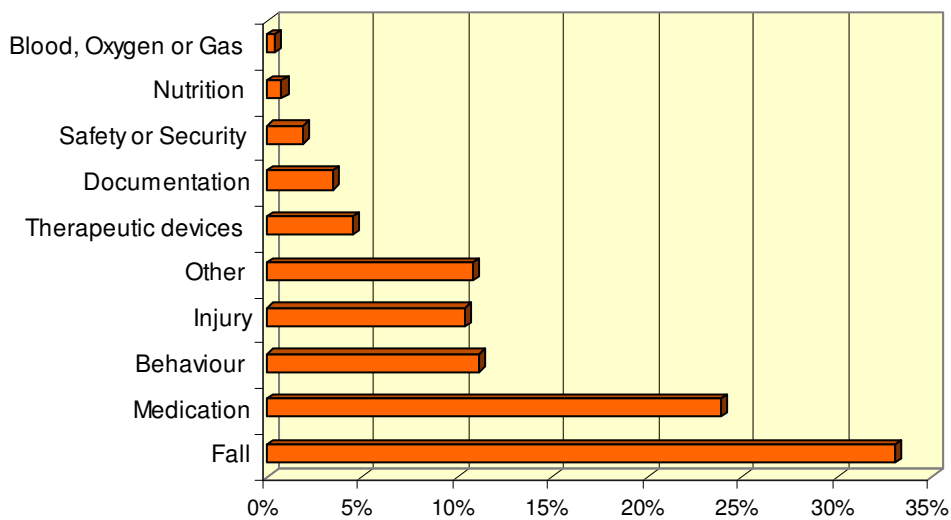
Each incident is classified a Principal Incident Type (PIT). A PIT is the component of the incident that is considered to have caused the most harm to, or had the most significant affect on, the subject. There are ten PITs in the classification system:

- behaviour;
- blood, oxygen or gas;
- documentation;
- fall;
- injury;

- medication;
- nutrition;
- other;
- safety and security; and
- therapeutic devices.

Figure 1 shows that over the 2003-04 financial year, *falls* and *medication* are the most commonly reported incident types to AIMS.

Figure 1: All reported incidents by Principal Incident Type, 2003-04 financial year



The *Other* PIT includes:

- 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 (ie. near misses) and Levels 3 to 8 represent actual incidents. Table 1 shows that the greatest proportion of incidents resulted in a minor outcome that did not require treatment (Level 4).

Table 1 : All Reported Incidents by Incident Outcome Level, 2003-04 financial year

	2003-2004 FY (% of incidents)	Outcome Definition
1	0%	A dangerous state or possibility of harm occurring.
2	1%	An event occurred but was intercepted prior to causing harm.
3	27%	An event occurred with no adverse outcome.
4	31%	An event occurred resulting in a minor outcome not requiring treatment (eg. extra observation).
5	25%	An event occurred resulting in a moderate outcome (eg. minor diagnostic investigations or treatment).
6	10%	An event occurred resulting in a moderate outcome (eg. diagnostic investigations, surgical intervention, treatment with another medication).
7	4%	An event occurred resulting in significant outcome (eg. hospital admission, increased length of stay, morbidity which continued on discharge).
8	0%	An event occurred resulting in permanent disability or death

Reporter Classification

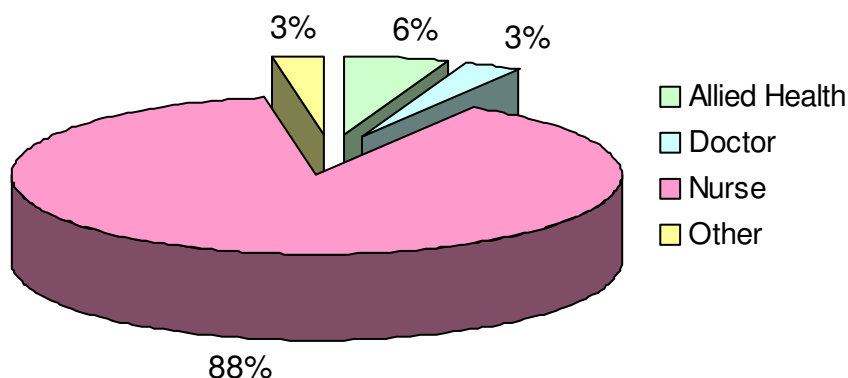
Figure 2 indicates that nurses report the majority of incidents. The 'other' category includes patient care assistants, orderlies, patients and carers.

Further analysis of the data shows that nurses typically reported *falls* and *medication* incidents. Allied health professionals generally reported *medication* 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 reported incidents by reporter classification, 2003-04 financial year



Falls

Analysis of *falls* data for the 2003-04 financial year reveals the following:

- The majority of reported *falls* (70%) occur in the elderly population (>70 years). *Falls* were highest in the 80 to 84-year (17%) 85 to 89 year age group (17%). Unfortunately, it is difficult to determine the number of individuals who fall more than once (ie. 'repeat' fallers).
- While the majority of falls (52%) resulted in a minor outcome that did not required treatment, 107 falls resulted in a dislocation or fracture. 77% of these resulted in an increased length of stay.

Analysis of contributing factors shows that subject factors were far more common than staff factors. The most frequent subject contributing factors included:

- Physical impairments (18% of all subject contributing factors)
- Pathophysiological factors (16%)
- Other (15%)
- Failure to follow advice or instructions (11%)
- Confusion or disorientation (10%)

Staff factors included distraction or inattention (20% of all staff contributing factors) and insufficient or inadequate staff (19%).

As a result of reporting falls to the state wide incident reporting system, many hospitals and health services have used their data to develop and implement preventative steps to reduce the number of falls. Examples of some of these strategies include:

- development of a risk identification and assessment tool to be used on elderly patients (>70 years) on admission;
- development of an audit and maintenance system for ward use patient walking frames;
- development of bladder management protocols and ensuring regular toileting;
- ensuring call bells are within reach of the patient;
- placing patients at increased risk of falling in rooms visible from nurses station; and,
- review of patient's medication.

Medication

Analysis of *medication* data for the 2003-04 financial year reveals the following:

- Analysis of data by result of incident reveals that 87% of all reported *medication* incidents resulted in no injury to the subject.
- Failure to read or misreading documentation and failure to follow policy or procedure were the most common cause of *medication* incidents over the 2003-04 financial year (49% and 23% respectively).
- Omission was the most common type of *medication* incident and accounted for 36% of all reported *medication* incidents. The following medications were the most common medications involved (% represents proportion of all omissions):
 - Salmeterol xinafoate/fluticasone propionate [asthma prophylactic] (8%)
 - Frusemide [diuretic] (4%)
 - Warfarin [anticoagulant] (3%)
- Overdose was the second most common type of *medication* incident and accounted for 18% of all reported *medication* incidents. The most common medications involved in overdoses are as follows (% represents proportion of all overdoses):
 - Omeprazole and omeprazole magnesium [treats hyperacidity, reflux and ulcers] (9%).

- Paracetamol (5%).
- Morphine and morphine sulfate (4%)

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 (eg. 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.