

Med+Safe™: A cost effective, evidence based solution for patient safety

Medication safety is a global phenomenon, and two of the World Health Organisation's top five priority areas to improve patient safety worldwide involve medication usage.⁽¹⁾

For many years medication errors were the second most frequently reported incident type after falls in Australian hospitals, equating to a quarter of all incidents in our public hospitals. 20% of errors resulted in some degree of harm to patients, 3% resulted in significant harm.⁽²⁾

The problem continues and by 2013 medication administration had become associated with more errors and adverse events than any other aspect of health care.⁽³⁾

Overdose and omissions are the most common types of medication incident reported in Australian public hospitals, with analgesics and anticoagulants the most commonly implicated.⁽¹⁾ Dose errors are the second most common type of medication error and in paediatric settings are the most common type of error.⁽⁵⁾

“Medication administration is now associated with more errors and adverse events than any other aspect of healthcare.”

- Roughead et al, 2013.

A large study conducted in NSW reported error rates occurring as a result of any type of intravenous medication administration,⁽⁶⁾ while another study reported 10% of deaths resulted from administration via the wrong route.⁽⁷⁾

Procedural errors occurred in 74% of administrations, while clinical errors occurred in 70% of administrations.⁽³⁾ Over 33% of reported medication errors in WA in 2010 were caused by a failure to follow policy and procedure.⁽⁸⁾

While errors can lead to adverse events for patients they are also a burden to the healthcare system. Medication errors in Australia cost over \$680 million per year, whilst medication related admissions cost \$1.2 billion per year.^{(1),(4)}

Overall it is estimated that 50% of hospital admissions due to medication errors are considered potentially avoidable.⁽⁵⁾

Will improved education help?

Academic detailing refers to an educational approach based on principles of communications theory and behaviour change. Two studies to date have proven effectiveness in reducing errors, whilst recognising that further controlled studies are required.

A N.S.W. study showed that academic detailing reduced prescription errors for (drugs of addiction/Schedule 8 medications) in the hospital setting, with error rates cut from 41% to 24%,⁽⁹⁾ while a Melbourne teaching hospital study demonstrated that an educational intervention to reduce the use of “error prone prescribing abbreviations” in an Emergency Department decreased errors from 31.8% to 18.7%.⁽¹⁰⁾

A Victorian study surveyed Registered Nurses employed in regional hospitals, with 29% of respondents citing a need for further education. Indeed ‘need for further training in medication administration’ was cited as the highest contributing factor to error.⁽¹¹⁾

It is argued that institutions must seek to acquire knowledge about error prone situations and identify variables associated with them in an attempt to change systems and reduce future events.⁽¹²⁾

"50% of hospital admissions due to medication error are considered potentially avoidable."
- Roughead et al, 2008.

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In Australia, the formation of the Australian Commission on Safety and Quality in Health Care (ACSQHC), has provided leadership to all hospitals. Health Services are now measured against the Medication Safety Standard 4 of the National Safety and Quality Health Service Standards which came into effect on January 1st 2013.⁽¹³⁾

Med+Safe™, mapped to Standard 4, has been developed over a number of years and is modelled on the actual risk profiles of Australian hospitals. Scenarios and workflows are clinically relevant, realistic, and continually reinforce best practice.

Med+Safe™ is far more powerful as a comprehensive education resource and assessment tool than traditional online learning methods and has been highly successful in enhancing the skills, knowledge and attitudes of over 70% of university nursing and midwifery students in Australia.

Implemented as a mandatory competency for clinical staff, administration and tracking of compliance is simple and cost effective. Med+Safe™ acts as a powerful trigger to performance management of staff requiring further training and allows specific issues of concern to be highlighted and documented. In conjunction with risk management systems Med+Safe™ provides valuable data on the safety profile of clinical staff and saves time and costs associated with training, assessment and performance management.

The educational resources, practice quizzes and workflow scenarios focus on actual issues of concern and continually stress the responsibility and accountability of the clinician in following best practice and local protocols. Med+Safe™ can easily be tailored to include resources and protocols of individual organisations or facilities.

Med+Safe™ is the most cost effective, simple solution to improving the safety of medication administration in Australian health care.

References

1. WHO (2009). Global Priorities for Patient Safety Research – ‘Better Knowledge for Safer Care’.
2. Roughead E, Semple S (2008). Literature Review: Medication Safety in Acute Care in Australia. Sansom Institute, University of South Australia (on behalf of Australian Commission on Safety and Quality in Healthcare). Adelaide.
3. Roughead E, Semple S, Rosenfeld E (2013). Literature Review: Medication Safety in Australia. Australian Commission on Safety and Quality in Health Care, Sydney.
4. Welfare Aloha (2013). Australian Hospital Statistics 2011–2012. Health Services Series no.50.Cat.no.HSE 134. Canberra.
5. The Joint Commission (2008). Preventing Paediatric Medication Errors. Sentinel Event Alert, April 11. Issue 39.
6. Westbrook J L; Rob M I; Woods A; Parry D (2011). ‘Errors in the Administration of Intravenous Medications in Hospital and the Role of Correct Procedures and Nurse Experience’. *BMJ Quality & Safety*, 20 (12): 1027-34.
7. Phillips j, Beam S, Brinker A, Holquist C, Honing P, Lee L, Pamer C. (2001). Retrospective Analysis of mortalities associated with Medication Errors. *AMJ Health System Pharmacy*, 58 (19), 1835–1841.
8. Source: Learning from Clinical Incidents: A Snapshot of Patient Safety in Western Australia 2008 - 2010.
9. Shaw J, Harris P, Keogh G, Graudins L, Perks E, Thomas PS (2003). Error Reduction: Academic Detailing as a Method to Reduce Incorrect Prescriptions. *European Journal of Clinical Pharmacology*. 59, 697–699.
10. Taylor SE, Chu MT, Haack LA, McGrath A, To TP (2007). An Intervention to reduce the use of Error Prone prescribing Abbreviations in the Emergency Department. *Journal of Pharmacy Practice & Rese arch*. 37: 214–216.
11. Dean C: Medication Errors and Professional Practice of Registered Nurses (2005). *Collegian*, 12: 29–33.
12. Han PY, Coombes ID, Green B (2005) Factors Predictive of Intravenous Fluid Administration Errors in Australian Surgical Care Wards. *Qual Saf Health Care*, 14: 179–184.
13. Australian Commission on Safety and Quality in Health Care. Safety and Quality Improvement Guide Standard 4: Medication Safety (2012). October. ACSQ

For More Information about the Med+Safe Online Solution

<http://www.medsafe.com.au>

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