Growing with the times: Evolving the High-Risk Medicine list at a Quaternary hospital

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Introduction

RMH had not formally reviewed our High-Risk Medicine (HRM) List for at least 10 years. The National Medication Safety Standard directs organisations to identify and review their own high-risk medicines and have systems to store, prescribe, dispense and administer HRMs safely.

The Australian Commission on Safety and Quality in Health Care (ACSQHC) defines a HRM as *"medications that have an increased risk of causing significant patient harm or death if they are misused or used in error. High-risk medications include:*

- *Medicines with a narrow therapeutic index*
- *Medicines that present a high risk when administered via the wrong route, or other medication management system errors occur*

Errors with these medicines are not necessarily more common than with other medicines. As they have a very narrow margin of safety, the consequences of errors with these medicines can be more devastating."

The existing HRM list was:

- **P**otassium (IV)
- **I**nsulin
- **N**arcotics
- **C**hemotherapy
- **H**eparins and other anticoagulants

Aim

To review and refine our organisation's HRM list, ensuring the list was reflective of our organisation's appetite and view of medication-related patient safety risks and strategies.

Methods

A comprehensive review process was led by the Medication Safety Pharmacists, to review the existing HRM list and to identify potential new medicines to be incorporated (see Table 1).

The review process included;

- Benchmarking with Australian and international organisations
- Reviewing our organisation's medication incident data
- Analysis of the level of patient harm if the medicine was misused
- Reviewing proposed medicines against existing safety systems implemented
- Consulting stakeholders within the organisation
- Considering the patient, staff and operational impacts of the revised high-risk medicines list
- Development of a mnemonic, promotional material and implementation plan
- Approval by our organisation's Medication Safety and Quality Committees

Results

The review process identified gaps in the previous HRM list with respect to existing safety systems and organisational attitudes towards selected medication groups (see Table 1). The review process also identified opportunities to clarify selected HRM listings in line with contemporary medicines nomenclature.

The HRM list expanded to ***A PINCH TO***: Anti-Cancer Medicines, Potassium (IV), Neuromuscular Blocking Agents, Clozapine, Heparin and other anticoagulants, Thrombolytics, Opioids; colloquially known as 'A PINCH TO prevent patient harm' (see figure 1).

Conclusion

Through a comprehensive review process, we developed a HRM list that is reflective of our organisation's medication management systems, environment and risks, with a focus on preventing patient harm.

Contact

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Figure 1. Revised RMH High-Risk Medicines Poster

Potential HRM	Inclusion on HRM List				Revised RMH HRM List
	Existing RMH List	ACSQHC list	16 Victorian Hospitals	4 state services	
Antimicrobials		✓	63%	100%	Do not include. Consensus with Medication Safety and Antimicrobial Stewardship that risk is variable within the class. If added the operational impact would be significant.
IV Potassium	✓	✓	100%	100%	**Include**
Other electrolytes			60%	100%	Do not include
Insulin	✓	✓	100%	100%	**Include**
Inotropes			6%	NA	Do not include
Narcotics	✓	✓	100%	100%	**Include** Updated to reflect contemporary nomenclature (opioids)
Neuromuscular blocking agents			67%	50%	**Include - NEW** Was already recognised as high-risk at RMH and safety systems were in place (e.g. red syringes). Recent sentinel events noted in the US
Other sedatives			38%	50%	Do not include
Chemotherapy	✓	✓	100%	100%	**Include** Updated to reflect contemporary nomenclature (anti-Cancer)
Heparin	✓	✓	100%	100%	**Include**
Other anticoagulants	✓		100%	100%	**Include**
Thrombolytics			31%	NA	**Include - NEW** RMH is a major stroke hospital. Risks associated with complex administration using multiple syringes.
Psychotropics (e.g. Clozapine, long acting injections, lithium)			6%	25%	**Include clozapine only - NEW** RMH has a large mental health service. Multiple systems to ensure appropriate use of clozapine and high level of potential harm (e.g. agranulocytosis, death)
Systems		✓	6%	75%	Do not include
Miscellaneous*			31%	25%	Do not include

Table 1. High-Risk Medicines benchmarking and evaluation

*Miscellaneous included immunosuppressants, epidural and intrathecal agents, and other medications