**Canberra Health Services**

**Policy**

**High-Risk Medicines**

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| Policy Statement |

Canberra Health Services (CHS) has identified high-risk medicines used within the organisation and maintains them in a High-Risk Medicines Register. The High-Risk Medicines Register and the associated standards outline the systems CHS uses to store, prescribe, dispense and administer high risk medicines safely.

The High-Risk Medicines Policy encompasses:

* The High-Risk Medicines Register with standards for the management of individual high-risk medicines or high-risk medicine groups
* The process for identification and assessment of risks associated with high-risk medicines
* Strategies to mitigate the risks associated with high-risk medicines and the requirements for prescribing and administering high risk medicines
* Evaluation of safety controls and identification of quality improvement opportunities

Compliance with this policy is mandatory and will ensure a standard approach to high-risk medicines.

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| Alerts  |

Details of specific standards for Individual high-risk medicines (or groups of medicines) are available on the High-Risk Medicines Register located on the CHS Policy and Guidance Documents Register*.*

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| Purpose |

This policy sets out how CHS ensures the safe use of high-risk medicines. It defines how the High-Risk Medicines Register is maintained and reviewed and how compliance with the High-Risk Medicine Policy is monitored. This policy also outlines strategies clinicians must use to mitigate the risks associated with medicines on the High-Risk Medicines Register and the general requirements for prescribing and administering these medicines.

Details of specific standards for Individual high-risk medicines (or groups of medicines) are available on the High-Risk Medicines Register located on the CHS Policy and Guidance Documents Register. These High-Risk Medicine Standards outline the expected standards for storage, prescribing, dispensing, administration, monitoring and clinical procedure requirements. There is a CHS High-Risk Medicine Standard for each high-risk medicine (or groups of medicine) included in the High-Risk Medicine Register

Compliance with the High-Risk Medicines Policy and associated standards will support the clinical workforce in the safe management and use of high-risk medicines.

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| Scope |

This policy applies to all CHS employees, working within their scope of practice, providing health services to CHS inpatients, outpatients and those cared for in the community including:

* Medical Officers
* Nurses and Midwives
* Pharmacists
* Allied Health Professionals.

The high-risk medicines policy must be adhered to at all stages of the medicine management pathway.

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| Roles & Responsibilities |

 **Clinical staff involved in medication management**

All clinicians must comply with local policies, protocols, guidelines and standards for high-risk medicines.

**Drug and Therapeutics Committee**

Before a new medicine is listed on the hospital formulary the Drug and Therapeutics Committee will consider whether the medicine should be included on the High-Risk Medicine Register.

**Executive Directors, Directors, heads of service/departments and other senior managers** Senior Management will be responsible for promoting staff awareness of the High-Risk Medicines Policy and the medicines or medicine groups contained on the High-Risk Medicines Register.

**Medication Safety Committee**

The Medication Safety Committee will be responsible for maintaining the High-Risk Medicine Register and ensuring risk reduction strategies are effective.

**The Quality, Safety and Innovations and Improvement Division**

The Quality Assurance Team will include high risk medication audit in the clinical audit program and report the data collected to Pharmacy, Medication Safety Committee and clinical units as per “Clinical Audit Program Guideline”. The Incident Management Team will respond to high-risk medicine incidents reported in the incident management system with a focus on systems improvement as per “Incident Management Policy” and “Incident Management Procedure”.

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| Section 1 – High-Risk Medicines Register |

The CHS High-Risk Medicines Register is found on the CHS Policy and Guidance Document Register. Medicines used within the organisation that are considered to be high-risk or deemed high-risk when used for treatment of specific patient populations or within specific clinical settings, are included in the high-risk medicines register, e.g. neuromuscular blocking agents (NMBA) and clozapine. Medication groups as recommended by the Clinical Excellence Commission and represented by the acronym “A PINCH” are also included in the CHS High-Risk Medicines Register

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|  | **High-Risk Medicine Groups** |
| **A** | Anti-infectives |
| **P** | Potassium and other electrolytes |
| **I** | Insulin |
| **N** | Narcotics and other sedatives |
| **C** | Chemotherapeutic agents |
| **H** | Heparin and anticoagulants |
| **other** | High-risk medicines identified at a unit level which do not fit the above categories |

*Table 1 : High-risk medicines acronym –“A PINCH”*

Any alterations or additions to the High-Risk Medicine Register require endorsement from the Medication Safety Committee. The Committee can be contacted by e-mail at CHS.MedicationSafety@act.gov.au

Each high-risk medicine included on the High-Risk Medicine Register along with its associated individual standard will be assigned a maximum 2-year review date. The Medication Safety Committee will routinely review the High-Risk Medicines Register to ensure its relevance and completeness and will be responsible for notifying relevant clinical staff/areas of changes to the High-Risk Medicine Register and any associated protocols or standards.

The High-Risk Medicines Register and individual high-risk medicine standards will be made easily accessible to all staff involved in the management of medicines via the CHS Policy and Guidance Documents Register on the intranet.

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| Section 2 – Identification and Assessment of Risks Associated with High-Risk Medicines |

The management of high-risk medicines will be regularly evaluated in patient care areas during divisional medication safety walk round audits that are conducted twice each year and through analysis of data obtained using the Medication Safety Self-Assessment® for Australian Hospitals (MSSA) 1 tool.This will be led by the Medication Safety Pharmacy team.

Adverse incidents and hospital acquired complications associated with the use of high-risk medicines will be reviewed to identify opportunities for re-design of systems to minimise the risks associated with these medicines2. The level and type of review will be determined in line with the Incident Management Policy and Procedure.

The Medication Safety Committee will evaluate recommendations from national and local medication safety alerts and notices relating to high-risk medicines and co-ordinate corrective actions if applicable. This activity is unrelated and independent from safety alerts received and managed according to the CHS policy “Management of recalls, alerts and product corrections”. An escalation process will be followed for alerts and safety notices that require high level organisational assessment by Our Care Quality and Safety Committee or the Corporate Plan Review Committee.

Encouraging staff to report medication incidents through the incident monitoring system (RiskMan) will aid early identification of system issues that may contribute to errors and detect any new issues with high risk medicines that may arise3.

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| Section 3 – Risk Reduction Strategies to Minimise Risk Associated with High-Risk Medicines |

Each medicine on the high-risk medicines register will be subjected to a comprehensive risk assessment to reduce risk of errors that can occur across all phases of the medicine

management pathway. This risk assessment must be repeated at appropriate intervals and no later than the associated individual standard review date (documented on the standard).

Following risk assessment, robust evidence-based risk reduction strategies will be implemented for all medicines on the high-risk medicines register. Details of these strategies can be found under the specific standards for Individual high-risk medicines (or groups of medicines) available on the High-Risk Medicines Register located on the CHS Policy and Guidance Documents Register. At a minimum, strategies to reduce the risks associated with high-risk medicines management must include the following:

**Administration**

* Ensure the safest means of completing a task is efficient, easily followed and requires minimal manipulation of the medicine prior to administration
* Remove the need for rapid mathematical calculation to prescribe or administer the medicine and reduce options and choices by standardising concentrations of medicines in solution
* In accordance with the High-Risk Medicine Standards for individual medicines or groups of medicines employ a fully independent double-check, carried out by a second clinician. The check should be conducted using independent double check principles. That is, clinicians separately check (alone and apart from each other, then compare results) each component of prescribing, dispensing, and verifying the medicine before administering it to the patient. Not all medicines included in the High-Risk Medicines Register will require a double check
* Use oral/enteral dispensers to prepare and administer all liquid medicines by routes other than injection
* Use smart pumps with drug error reduction software and defaults to the safest setting
* Labelling of high-risk injectable medicine containers, medicine conduits lines and catheters must be in accordance with “The National Standard for User Applied Labelling”

**Patient Information**

* The information needs of patients prescribed high-risk medicines should be met to ensure that patients and carers have enough information about treatment options and risks to make informed choices and shared decision making

**Patient Monitoring**

* Patients should be monitored in accordance with local protocols and guidelines
* Clinicians should be alerted in clinical handover to the use of any high-risk medicines

**Qualifications**

* Clinical staff must work within their scope of practice and have the necessary skills and qualifications appropriate to the prescribing, supply, preparation or administration tasks they undertake
* The minimum requirement for nursing staff is the successful completion of the Medication Safety eLearning program found on the CHS learning management system

**Prescribing**

* Accurate patient weight should be documented on the medication chart for all patients
* The route of administration for the medicine must be clearly identified. The use of multiple routes of administration in the one prescription should be avoided for the same medicine (for example, intravenous / oral)
* Where required, the strengths of medicines must be clearly visible in terms of the dosage unit or dose per volume of liquid, for example, mg per mL
* The prescriber should complete the ‘Indication’ for use box on the National Inpatient

Medication Chart (NIMC) or MedChart (EMM) for high-risk medicines

* Dose adjustments must be considered when prescribing a high-risk medicine for patient groups such as overweight or underweight patients, and patients with existing clinical conditions (such as renal or hepatic impairment) that may affect drug metabolism and excretion
* Therapeutic guidelines should be followed for medicines where dosing is complex and duration of therapy substantially increases the risk of toxicity, for example aminoglycosides

**Procurement**

* Consider safety elements when purchasing medicines e.g. review label clarity, visual product discrimination, amount of manipulation required, and associated equipment needed in administration of the medicine. When new medicines are purchased, or when there are changes to the packaging/manufacturer of existing medicines, a Medication Safety Pharmacist should be contacted to conduct a product safety assessment.
* Purchase standardised concentrations of medicines in solution

**Protocols**

* Therapeutic guidance in the form of local protocols and guidelines must be available for prescribing and administration of all high-risk medicines that do not have established therapeutic guidance available in standard references
* Protocols should be prepared in consultation with relevant specialists and aligned to the Canberra Health Services Medication Handling Policy
* Medication reconciliation processes should be prioritised for patients prescribed high risk medicines

**Storage/supply**

* Restrict supply of high-risk medications to areas of specified use where possible
* Storage of high-risk medicines should be in accordance with the individual (or group of medicines) storage requirements as detailed in the High-Risk Medicine Standards

**Systems**

* Use of shelf reminders, checklists and alerts. These should be built into information technology systems where possible
* Low level risk-reduction strategies (i.e. staff education and information) should be used together with high-leverage risk-reduction strategies, such as forcing functions and fail safes (such as limiting access or use, constraints, barriers or standardisation)
* A regular review of local and wider system incidents and near-misses and the use of prospective analysis and re-design of systems to prevent recurrence of the same errors
* Monitor the use of high-risk medicines by collecting data to determine the effectiveness of risk-reduction strategies for high-risk medications. Communicate results with appropriate committees and individuals

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| Evaluation  |

**Outcome**

Compliance with evidence based risk reduction strategies to reduce the potential for patient harm from the use or misuse of high-risk medicines.

**Measures**

Compliance with the high-risk medication policy and its associated High-Risk Medicine Standards will be evaluated through regular audits and analysis of incident reports.

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| Related Policies, Procedures, Guidelines and Legislation |

**Policies**

* Medication Handling
* Incident Management
* Risk Management
* Management of recalls, alerts and product corrections
* Consent to Treatment

**Procedures**

* Incident Management.
* Anticoagulation Management clinical Procedure – Adult.
* Falls Prevention and Management (including safe use of bed rails).
* Haemodialysis for Adults.
* Insulin infusion for labour and birth.
* Hyperkalaemia-management of acute hyperkalaemia in adults.
* Acute pain management techniques – Adult and Paediatric.

**Guidelines**

* Clinical Audit Program
* Diabetes Management: Including Hypoglycaemia, IV Insulin Infusions and Insulin Pumps (Adults only).
* Paediatric and adolescent diabetes- management (not neonates.)
* Risk Management Guidelines.
* National Inpatient Medication Chart (NIMC) user guide.
* Termination of Pregnancy (TOP), Miscarriage or Fetal Death Management
* Electrolyte Replacement Guidelines (Adults)
* Clinical Oncology Society of Australia. Guidelines for the Safe Prescribing, Dispensing and Administration of Cancer Chemotherapy.
* The Australian Injectable Drugs Handbook (7th Ed)

**Standards**

* National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines
* National Safety and Quality Health Service Standards second edition (National Standards)
* National Safety and Quality Health Service Standards, User Guide for Medication Management in Cancer Care 2020

**Legislation**

* *Medicines, Poisons and Therapeutic Goods Act* 2008
* *Medicines, Poisons and Therapeutic Goods Regulation* 2008
* *Health Practitioner Regulation National Law Act* 2010
* *Therapeutic Goods Act* 1989
* *Therapeutic Goods Regulations* 1990
* *Work Health and Safety Act* 2011
* *Dangerous Substances Act* 2004
* *Human Rights Act 2004*
* *Australian Charter of Health Care Rights*

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| Definition of Terms  |

**APINCH**

A PINCH is an acronym used to identify high-risk medicines and includes anti-infective agents, potassium, insulin, narcotics and sedative agents, chemotherapy and heparin and other anticoagulants. In recent years “S” for systems has been added to include other evidence-based practices known to improve safety such as independent double-checks and safe administration of liquid medicines by using oral dispensing syringes.

**High-risk medicines**

Are those medicines that have a high risk of causing significant patient harm or death when used in error. Although errors may or may not be more common than with other medicines, the consequences of errors with these medicines can be more devastating.

**High-Risk Medicine Standards**

These High-Risk Medicine Standards outline the expected standards for storage, prescribing, dispensing, administration, monitoring and clinical procedure requirements. There is a CHS High-Risk Medicine Standard for each high-risk medicine (or groups of medicine) included in the High-Risk Medicine Register.

**Medication Reconciliation**

A systematic process that ensures patients receive all intended medicines by making sure accurate, current and comprehensive medication information follows them at all transfers of care. It is described as the formal process of obtaining, verifying and documenting an accurate list of a patient’s current medicines on admission and comparing this list to the admission, transfer and discharge orders, to identify and resolve discrepancies. At the end of each episode of care the verified information is transferred to the patient and next care provider.

**Medicines Management Pathway**

The medicine management pathway describes the cognitive and physical steps involved in the use of medicines, with a focus on the consumer.

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| References |

1. Clinical Excellence Commission, Medication Safety Self-Assessment for Australian Hospitals (MSSA).
2. Reason J. The contribution of latent human failures to the breakdown of complex systems. Philosophical Transactions of the Royal Society of London, Series B. 1990; 327:475–84
3. Sicheng, Z et al. Analyzing Medication Error Reports in clinical settings: An Automated Pipeline Approach. AMIA Annu Symp Proc 2018: 1611-1620

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| Search Terms |

High-Risk, high risk, high risk medicines, high-risk medicines, high-risk medications, High-Risk Medicines Register, high risk medicine register, High-Risk Medicine Standards, Potassium, heparin, anticoagulant, opioid, opioids, narcotics, hydromorphone, HYDROmorphone, insulin, insulins, NMBA, neuromuscular blocking agents, APINCH, A PINCH, clozapine, chemotherapy, chemotherapeutic agents, Anti-infectives, aminoglycosides.

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*Policy Team ONLY to complete the following:*

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