

	<p><b>POLICY</b></p> <p>Number: 7311-60-020  Title: HIGH ALERT MEDICATIONS – IDENTIFICATION, DOUBLE CHECK AND LABELING</p>
<p>Authorization</p> <p>[ ] Authority  [ ] Senior Leadership Team  [X] Vice President</p>	<p>Source: Chair, Medication Use Quality Committee  Cross Index: 7311-60-004  Date Approved: November 22, 2007  Date Revised: March 6, 2009  Date Effective: March 6, 2009  Date Reaffirmed:  Scope: SHR &amp; Affiliates</p>

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**DEFINITIONS**

**High-Alert Medications** means medications that bear a heightened risk of causing significant patient harm when used in error (as defined by the Institute for Safe Medication Practices).

**Independent Double-Check** means a second independent check confirming the medication correctly reflects the original prescribed medication order, and the medication administration is in accordance with the drug monograph and / or respective policy (Appendix A).

**Independent Double-Check on an Infusion Pump** means in addition to the above criteria and also includes confirmation at setup, change of bag / syringe, change in concentration and / or infusion rate (excluding titration in critical care areas).

**Verification** means the nursing personnel/physician accepting care of the patient at shift change and/or transfer of care; confirms intravenous and epidural infusions are being administered according to the prescribed medication order.

**Critical Care Areas** mean ICU, CCU, Progressive Care Unit, PICU, NICU, EMERG, Post Anaesthesia Care Unit (PACU) and Labour & Delivery

## 1. PURPOSE

- 1.1 The purpose of this policy is to identify high-alert medications for all healthcare providers involved in the prescribing, dispensing, and administration of these medications.
- 1.2 To promote the safe storage, handling and administration of high-alert medications.

## 2. POLICY

- 2.1. Saskatoon Health Region (SHR) identifies the following as high alert medications
- insulin,
  - intravenous anticoagulants,
  - concentrated electrolytes,
  - chemotherapeutic agents,
  - high potency narcotics,
  - intravenous vasoactive agents and
  - neuromuscular blocking agents.
- 2.2 In accordance with SHR Policy *Ordering of Medications*, only when the physician is unable to attend to the patient and write the order, and a delay in ordering the medication would compromise patient safety and care, will verbal or telephone medication orders be permitted. Orders for chemotherapeutic agents will always be written and signed by a physician.
- 2.2. An independent double-check is required prior to the administration of any dose which requires use of the following high-alert medications:
- insulin (excluding subcutaneous insulin administered through Home Care),
  - intravenous anticoagulants (excluding prefilled heparin syringes used in hemodialysis),
  - concentrated electrolytes,
  - chemotherapeutic agents (excluding oral and topical formulations),
  - high potency narcotics,
  - intravenous vasoactive agents and
  - neuromuscular blocking agents.
- 2.2.1 Documentation of independent double-checks will be completed on the medication administration record and include provider initials and time of double-check.

- 2.2.2 When an independent double check can not be performed, the professional staff will be aware of and alerted to all high risk medications.
- 2.3. Verification is required at shift change and transfer of care for any intravenous or epidural infusions of high-alert medications.
  - 2.3.1. Documentation of verification will be completed on the medication administration record and include provide initials and time of verification.
- 2.4. Commercially packaged or pharmacy prepared pre-mixed solutions of high-alert medications will be used when available.
- 2.5. The number of concentrations and / or volume options available for all high-alert medications on patient areas will be limited.
- 2.6. All high-alert medications administered as intravenous or epidural infusions will be administered in standardized concentrations for adult patients. If a concentration other than the standardized concentration is ordered, it must be identified as such.
- 2.7. All premixed epidural solutions will be clearly labelled, "For Epidural Infusion Only" and stored separately from all intravenous solutions.
- 2.8. Insulin (refrigerated) and heparin (room temperature) will be stored separately.

**5. POLICY MANAGEMENT**

The management of this policy including policy education, monitoring, implementation and amendment is the responsibility of the Chair, Medication Use Quality Committee.

**6. NON-COMPLIANCE/BREACH**

Non-compliance with this policy will result in a review of the incident. Repeated non-compliance may result in disciplinary action, up to and including termination of employment and/or privileges with SHR.

## PROCEDURE

Number: 7311-60-020

Title: HIGH ALERT MEDICATIONS – IDENTIFICATION, DOUBLE CHECK AND LABELING

### Authorization

- Board of Directors
- Senior Leadership Team
- Vice President

Source: Chair, Medication Use Quality Committee

Date Approved: November 22, 2009

Date Revised: March 6, 2009

Date Effective: March 6, 2009

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Scope: SHR & Affiliates

## OVERVIEW

*Additional region-wide policies and procedures are referenced. Unit/department/sector specific procedures relating to high alert medications must comply but are not limited to content herein. All professional staff will have access to educational resources related to the administration of high alert medications.*

## 1. PROCEDURE

### 1.1. INSULIN

Insulin will be stored in the refrigerator. The storage space will be identified with a High Alert sticker.

### 1.2. INTRAVENOUS ANTICOAGULANTS

1.2.1. The aPTT must be documented on the medication administration record when a dose / infusion rate changes.

1.2.2. Heparin will be stored at room temperature.

### 1.3. CONCENTRATED ELECTROLYTES

1.3.1. Concentrated electrolytes include hypertonic saline (3%, 5%), sodium chloride 14.6%, potassium chloride (2 mEq/mL), potassium phosphate, magnesium sulphate and calcium chloride.

1.3.2. Concentrated potassium chloride will not be kept in patient care areas with the exception of RUH pediatrics, NICU, PICU and RUH OR (perfusion room). In these areas concentrated potassium chloride will be kept in a designated, dedicated storage area, clearly marked "Concentrated Potassium Chloride". Documentation is required for each vial of concentrated potassium chloride removed from the storage in any pediatric area.

- 1.3.3. Potassium phosphate injection will not be available as stock in patient care areas.
- 1.3.4. Hypertonic saline will not be available as stock in patient care areas, with the exception of PICU. Prior to being dispensed, it will be labelled "High Alert, Double Check" and stored in a designated area separate from intravenous solutions.
- 1.3.5. Sodium chloride 14.6% (50 mEq/20mL) will not be kept in patient care areas with the exception of RUH Pediatrics, NICU and PICU. In these areas it will be kept in a designated, dedicated storage area, clearly marked "High Alert, Double Check". Documentation is required for each vials of sodium chloride 14.6% removed from the storage in any pediatric area.
- 1.3.6. Calcium chloride is available only in drug modules on Code carts.

Region-wide Administrative Policy and Procedure Manual

SHR Policy *Potassium Chloride for Infusion*

SHR Policy *Potassium Phosphate Injection*

- 1.4. CHEMOTHERAPEUTIC AGENTS (EXCLUDING ORAL & TOPICALS)
  - 1.4.1. Computer order entry of chemotherapeutic agents in the pharmacy information system requires an independent double check.
  - 1.4.2. All chemotherapy doses will be prepared in the pharmacy department.
  - 1.4.3. Chemotherapy for intrathecal use and chemotherapy for intravenous use will be dispensed through separate operational procedures in the pharmacy department.
  - 1.4.4. All pharmacy personnel preparing chemotherapy must have chemotherapy preparation validation.
  - 1.4.5. Nursing personnel administering chemotherapy must be certified.

Tri-Hospital Nursing Policy and Procedure Manual

- Cytotoxic and Hazardous Drugs: Administration and Precautions

- 1.5. HIGH POTENCY NARCOTICS
  - 1.5.1. High-potency narcotics include dosage forms of:
    - Hydromorphone injection greater than 2mg/mL,
    - Morphine injection greater than 10mg/mL (adults),
    - Morphine injection greater than 2mg/mL (pediatrics),
    - Fentanyl injection greater than 250mcg/5mL.
  - 1.5.2. High-potency narcotics will not be dispensed as routine narcotic stock, with the exception of RUH 6100, SPH palliative care and fentanyl injection for Operating Rooms. In all other areas, high-potency narcotics will be dispensed from the pharmacy on a patient specific basis.

- 1.5.3. All high-potency narcotics will be returned to the pharmacy upon discontinuation of the medication or discharge of the patient.
- 1.5.4. All high-potency narcotics will be labelled prior to being dispensed, “High Alert , Double Check”

The following policies are associated with narcotic administration:

Tri-Hospital Nursing Policy and Procedure Manual

- Patient Controlled Analgesia (PCA)
- Epidural – Care of Patients Receiving Epidural/Intrathecal Narcotics
- Epidural – Local Anesthetic – Care of Patients Receiving
- Epidural – Administering Intermittent Doses of Narcotic via Short Term Epidural Catheter
- Conscious Sedation for Adults (Age 17 Years and Older)
- Pediatric Procedural Sedation / Analgesia Guidelines (pending approval)
- Interfacility Transfer (pending approval)

1.6. INTRAVENOUS VASOACTIVE AGENTS

- 1.6.1. Best practice includes a physician order that specifies a dose range and titration parameters.

1.7. NEUROMUSCULAR BLOCKING AGENTS

- 1.7.1. Best practice includes a physician order that specifies a dose range, titration parameters, and Critical Care protocol (“train of four”) monitoring for continuous infusions.
- 1.7.2. Neuromuscular blocking agents may be provided as wardstock to critical care areas **ONLY**.
- 1.7.3. Neuromuscular blocking agents will be stored, in designated areas, in separately labelled containers which are clearly identified.
- 1.7.4. All neuromuscular blocking agents will be labelled, “Warning: Paralyzing Agent, Causes Respiratory Arrest”, prior to being dispensed.

Region-wide Policy and Procedure Manual

Neuromuscular Blocking Agents: (pending approval)

**2. PROCEDURE MANAGEMENT**

The management of this procedure including procedures education, monitoring, implementation and amendment is the responsibility of the Chair, Medication Use Quality Committee.