OBJECTIVE

- To establish guidelines for restrictions, exceptions, labelling, storing, and dispensing of electrolytes in order to minimize risk of medication errors and to prevent harm to patients.

APPLICABILITY

This guideline applies to all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary). This guideline does not limit any legal rights to which you may otherwise be entitled.

GUIDELINE

1. Restricted Products

    1.1 The following select concentrated electrolyte parenteral products are restricted by Accreditation Canada Required Organizational Practice and shall not be stored in patient care areas (i.e., wardstock):

        a) calcium (all salts) in concentrations greater than or equal to 10 per cent (100 mg/mL);
        b) magnesium sulfate in concentrations greater than 20 per cent (200 mg/mL);
        c) potassium (all salts) in concentrations greater than or equal to two (2) millimoles per millilitre (mmol/mL) or two (2) milliequivalents per millilitre (mEq/mL);
        d) sodium acetate in concentrations greater than or equal to four (4) mmol/mL;
e) sodium phosphate in concentrations greater than or equal to four (4) mmol/mL; and

f) sodium chloride in concentrations greater than 0.9 per cent.

2. Exceptions

2.1 When it is necessary for a restricted concentrated electrolyte product to be available in selected patient settings (i.e., wardstock), a Required Organizational Practice (ROP) Exception Request Form must be submitted to the provincial Pharmacy Services Medication Quality and Safety Team (MQST).

a) A restricted concentrated electrolyte product may only be stocked in a patient care area if an exception request has been approved.

2.2 Approved Required Organizational Practice exceptions are located through Insite at Pharmacy Services, Medication Quality and Safety Team, High-alert Medications web page.

3. Labelling and Storing

3.1 Electrolyte storage containers and products shall be labelled per Appendix A Electrolyte Labelling Requirements. This is a shared responsibility between clinical departments or programs (e.g., nursing or care settings) and Pharmacy Services. Assignment of responsibility shall be determined by the site.

3.2 Following consultation with site Pharmacy for further information, dilute formats of concentrated electrolyte products may be stocked in patient care areas (i.e., wardstock).

4. Dispensing

4.1 When an approved Required Organizational Practice exception is not in place, restricted concentrated electrolyte products shall be provided on a patient-specific basis when required.

a) It is preferable for Pharmacy to provide concentrated electrolyte products in a dilute ready-to-administer format, whenever possible.

4.2 Sodium chloride 23.4 per cent (four [4] mmol/mL), when required for oral feeds, shall be transferred into an oral container and labelled “For Oral Use Only”. Pharmacy may dispense product as patient-specific or as wardstock in this format.

DEFINITIONS

None
REFERENCES

- Appendix A Electrolyte Labelling Requirements
- Alberta Health Services High-alert Medications: Heparins Guideline
- Alberta Health Services High-alert Medications: Narcotics Guideline
- Alberta Health Services Management of High-alert Medications Policy
- Alberta Health Services Management of High-alert Medications Procedure
- Accreditation Canada QMentum Program, Medication Management Standards (For Surveys Starting After: January 1, 2014)
- Required Organizational Practice (ROP) Exception Request Form

REVISIONS

N/A
## Electrolyte Labelling Requirements

### Cautionary Labels to be used in addition to High-alert Medication Label

(High-alert Medication Label to be affixed to the storage containers only)

<table>
<thead>
<tr>
<th>Label Type</th>
<th>Medication Class</th>
<th>Use</th>
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| **CAUTION IV contains Potassium** | • Potassium chloride intravenous bags:  
  ▪ 10 mmol/50 mL  
  ▪ 20 mmol/50 mL  
  ▪ 10 mmol/100 mL  
  ▪ 20 mmol/100 mL  
  ▪ 40 mmol/100 mL  
 • Potassium phosphate intravenous solutions prepared by pharmacy  
 • Potassium acetate intravenous solutions prepared by pharmacy | |
| **CAUTION Concentrated Potassium Fatal if Injected undiluted DILUTE BEFORE USE** | • Potassium chloride intravenous solution: concentrations greater than or equal to two (2) mmol/mL  
 • Potassium phosphate (monobasic and dibasic) concentrated intravenous solution (vials)  
 • Potassium acetate intravenous solution: concentrations greater than or equal to two (2) mmol/mL | To be affixed to the storage containers and to each product. For products with outer wraps, apply the label to the outer wrap (no need to remove outer wrap). |
| **CAUTION Hypertonic Sodium Chloride** | Sodium chloride intravenous solution: concentrations greater than 0.9 per cent (hypertonic sodium chloride) | |
| **CAUTION Concentrated Sodium Fatal if Injected Undiluted DILUTE BEFORE USE** | • Sodium acetate intravenous solution: concentrations greater than or equal to four (4) mmol/mL  
 • Sodium chloride 23.4 per cent (four [4] mmol/mL) vial for injection  
 • Sodium phosphate intravenous solution: concentrations greater than or equal to four (4) mmol/mL sodium and three (3) mmol/mL phosphate | |
| **CAUTION Concentrated Electrolyte** | • Calcium (all salts) intravenous solution: concentrations greater than or equal to 10 per cent (100 mg/mL)  
 • Magnesium sulfate intravenous solution: concentrations greater than 20 per cent (200 mg/mL) | To be affixed to the storage containers. |
| **FOR ORAL USE ONLY** | Sodium chloride 23.4 per cent (four [4] mmol/mL) for injection when required for oral feeds | Transfer to an oral container and affix label to container. |

Pharmasystems labels can be ordered by calling Pharmasystems Customer Service Toll Free at 1-888-475-2500

The website can be accessed at [www.pharmasystems.com](http://www.pharmasystems.com).

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If you have any questions or comments regarding the information in this guideline, please contact the Policy & Forms Department at [policy@albertahealthservices.ca](mailto:policy@albertahealthservices.ca). The Policy & Forms website is the official source of current approved policies, procedures and directives.