

ANTICOAGULANT SAFETY INITIATIVE 2007-2008

SUMMARY OF RECOMMENDATIONS TO MINIMIZE RISK OF HARM WITH UNFRACTIONATED HEPARIN

1. Complete an audit of heparin storage areas throughout the hospital (including the pharmacy department) to identify high-risk situations*:

- Review products and quantities stored;
- Assess intended use for each heparin product stored;
- Identify unnecessary products to be removed; and
- Identify appropriate quantities to be stored.

2. Assess current utilization of heparin and compare with best practices:

- Review use of unfractionated heparin to ensure alignment with the evidence-based guidelines, e.g. The Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy: Evidence-Based Guidelines;
- Where possible, use alternative products/procedures for flushing/locking of access lines to limit exposure to heparin; and
- Consider the use of low molecular weight heparins as an alternative to unfractionated heparin where indicated.

3. Reduce the number of potential high-risk situations associated with heparin storage:

A) In patient care areas

- Remove formats of high dose heparin products from stock in patient care areas:
 - i. 50,000 units/5 mL
 - ii. 50,000 units/2 mL
- Review and reduce, where possible, availability of the following products in patient care areas:
 - iii. 10,000 units/1 mL
 - iv. 10,000 units/10 mL
- Simplify and standardize product selection according to use:
 - i. Define protocols and standardize products for heparin flush, subcutaneous and intravenous use to minimize the number of concentrations in a patient care area.
 - ii. Select optimal product format appropriate for use. Examples include:
 - Use premixed solutions of heparin for continuous IV infusions. Select one standardized concentration for hospital-wide use;
 - Utilize single use dose formats such as 5,000 unit pre-filled syringes or ampoules for subcutaneous administration.
 - If using heparin to flush a central venous access device, use appropriate concentrations (e.g., 10 units/mL, 100 units/mL).
 - iii. When heparin flushes, subcutaneous and intravenous doses must be stocked in the same patient care area, maximize differentiation using geographic separation, labelling, product format and other techniques.

B) In pharmacy

- Review storage areas to ensure adequate safeguards to prevent selection errors.

* Presence of Heparin 50,000 unit products (total drug quantity); or heparin 10,000 unit products (total drug quantity); combination of any flush product with either IV Bolus or SC doses of heparin on any one patient care area.