

FOCUS SAFETY EFFORTS ON HIGH RISK DRUGS

Hospitals have asked us “ where do we start?” when planning to increase their efforts to improve medication use system safeguards. A good starting step is to establish a multidisciplinary working group which can work together to explore areas for risk and error potential and can work together to effectively implement system-wide improvements. Many hospitals have developed ‘Safe Medication Practice Teams’ or Committees or Working Groups, with focused mandates to promote a **culture of medication safety**.

A second step could include a review of the hospital’s risk potential for errors with ‘high risk drugs’. The Institute for Safe Medication Practices in the U.S. has identified a list of ‘high risk drugs’ based on their years of experience reviewing medication error reports and based on the serious consequences when specific medications were involved ¹. Examples of these drugs include neuromuscular blocking agents, anti-coagulants, narcotics and opiates, Lidocaine, Digoxin and Potassium Chloride. Not surprisingly, Potassium Chloride concentrate (KCl concentrate) is high on ISMP’s list and it deserves a special mention here.

The U.S. Joint Commission for Hospital Accreditation Organization (JCHAO) reviewed 200 sentinel events (events which result in death or a very poor outcome for the patient) over a two year period. Of these events ², the majority were caused by medication errors and the most commonly implicated drug was potassium chloride concentrate. The types of errors described include (i) administering KCl direct IV (e.g. flushing a line) when the intended agent was saline; (ii) mixing another drug with KCl when the intended diluent was sterile water and (iii) confusing KCL with another drug such as furosemide. JCHAO subsequently made the following recommendation to American hospitals:

Although, as yet, there is no such formal recommendation in Canada, many Canadian hospitals are following the U.S. lead. Steps hospitals are taking to reduce possibility of error with potassium chloride concentrate include:

- Reviewing all hospital areas where the concentrate is stored and evaluating the true need.
- Arranging for availability of commercially prepared pre-mixed IV solutions already containing KCl.

- Ensuring physicians are aware of the pre-mixed solution concentrations available so that orders are written for ‘standard solutions’.
- Implementing automatic substitution policies for non-standard orders.
- Preparing non-standard solutions in a Pharmacy.
- If KCl must be stored outside of Pharmacy, maximizing safety with additional labeling and restricting access.
- Eliminating the 20mEq/10mL size, which most closely resembles saline and sterile water.

Don't wait for the errors to occur in your hospital before you act!

If your hospital is taking steps to reduce the risk of errors with potassium chloride concentrate, please share with ISMP-Canada your successes and/or difficulties. ISMP-Canada is committed to sharing the learnings from hospitals and from healthcare workers in order to pro-actively increase medication safety in Canada.

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