Designing Labels with the End-User in Mind

The following label was shared with ISMP Canada after an IV infusion error.

The physician order was for “Octreotide IV infusion 25 mcg/hour x 48 hours”.

The @ symbol printed on the label was interpreted as 2, and the rate of infusion was set at 25 mL per hour (125 mcg/hour) instead of the intended 5 mL (25 mcg/hour). The hospital has suggested that the @ symbol not be used on labels. We would concur that the word ‘at’ should not be abbreviated. Because of the shared learning from this error report, it is proposed the @ sign be considered a dangerous abbreviation and that it be included in a hospital’s list of abbreviations or symbols ‘not to use’.

Appropriate use of abbreviations in healthcare is one of the recommendations included in the six patient safety goals for 2003 recently defined by the Joint Commission for Accreditation of Healthcare Organizations (JCAHO):

“Standardize the abbreviations, acronyms and symbols used throughout the organization, including a list of abbreviations, acronyms and symbols not to use”. http://www.jcaho.org/accredited+organizations/patient+safety/npsg/faqs+about+national+patient+safety+goals.htm

The expectation is that as of January 1, 2003, American organizations seeking accreditation will be surveyed for compliance with the patient safety goals and the 11 related recommendations. An error such as the one described above can provide impetus for change and can be an opportunity to move a hospital forward in adopting uniform policies and practices for the use of abbreviations.

The sample label also leads us to the consideration of other factors for safety when (i) designing the label format within the pharmacy software and (ii) checking the label for clarity of information during the dispensing process. The following suggestions are to be considered:

• When deciding on a label format within a pharmacy software program, or when reviewing the existing label formats, ask to see other hospital label formats for comparison. Often the vendor provides only one suggested format and this may limit consideration of available options for field choices and arrangement on the label.

• Be sure to “test” the clarity of the label with a nurse, a physician and a patient. The information on the label should provide necessary information for independent “checks” to ensure the label matches the medication order written.

• In addition to the amount of drug added, ensure that the final concentration of the infusion solution is clearly specified. This will facilitate the checking process for calculation of the appropriate rate of infusion, as well as verification against the physician order.

• Avoid unnecessary information on the label. Additional “white space” on the label can improve readability. In this instance, for example, the name of the salt of the drug (acetate) does not need to be printed on the label.

• Avoid overuse of auxiliary labels. This will prevent clutter and will avoid distraction from critical information. Selective use of auxiliary labels will help ensure that labels are seen and not ignored.

• Include on the label, the base solution used in the IV admixture preparation.

• If possible, consider the use of bold print, or CAPITAL LETTERS for selected information to help in distinguishing important information.
• The route of administration needs to be in a prominent location on the label.

We commend the hospital for sharing their label and medication error experience. Only by critically analyzing incidents, being open to system improvements and taking the initiative to warn others, can we pro-actively prevent a recurrence of the same, or similar errors.

**Breaking News: A new medication safety initiative from the Government of Ontario**

Tony Clement, Minister of Health of the Ontario Ministry of Health and Long Term Care announced on September 4, 2002, at the Ministers of Health meeting in Banff, Alberta, that the government of Ontario would create two new, innovative partnerships to enhance patient safety. One is a partnership with the Ontario Hospital Association to develop a Patent Safety Team. The other is a partnership with the Institute for Safe Medication Practices Canada (ISMP Canada) to create the Safe Medication Support Service.

"We are fortunate in Ontario to have access to a universal health care system that is delivered by thousands of skilled healthcare professionals day after day," said Clement. "Today's announcement will help ensure that these healthcare professionals have more tools and supports in place to enhance the quality of care provided to Ontarians."

The Safe Medication Support Service is the first of its kind in Canada established and supported by a jurisdiction to provide needed support to Ontario hospitals. Please visit ISMP Canada's web site for more details in the near future.

**ISMP Canada is a national voluntary medication incident and ‘near miss’ reporting program founded for the purpose of sharing the learning experiences from medication errors. Implementation of preventative strategies and system safeguards to decrease the risk for error-induced injury and thereby promote medication safety in healthcare is our collaborative goal.**

To report a medication error to ISMP Canada: (i) visit our website www.ismp-canada.org or (ii) email us at info@ismp-canada.org or (iii) phone us at 416-949-4839. ISMP Canada guarantees confidentiality and security of information received. ISMP Canada respects the wishes of the reporter as to the level of detail to be included in our publications.