Supporting Medication System Safety and Preparing for Accreditation

Applying New Tools for Home and Community Care and Acute Care

June 23, 2015

Presented with support from Ontario
Objectives

At the end of this session, participants will understand:

• The importance of regular evaluation of medication system safety

• How ISMP Canada's customized Medication Safety Self-Assessment® programs can be used to provide comprehensive interdisciplinary medication system review and prepare for Accreditation Canada surveys

• How customized medication safety checklists can be used to focus and support improvement efforts.
Alignment with Accreditation Canada Standards and ROPs

- ISMP Canada and Accreditation have very complementary mandates
  - Many ISMP Canada recommendations have been incorporated into Accreditation ROPs and standards
- This webinar will provide some illustrative examples of how new ISMP Canada tools and resources support organizations to prepare for Accreditation
- Consult Accreditation Canada for details on the Qmentum program and tests for compliance
About ISMP Canada

Incorporated in 2000 for the purpose of analysis of medication incidents, sharing the learning, and making recommendations for medication system safeguards.

Independent national not-for-profit organization committed to the advancement of medication safety in all healthcare settings.

Our goal is the creation of safe and reliable systems for managing medications.
Advancing safe medication use
The Institute for Safe Medication Practices Canada is an independent national not-for-profit organization committed to the advancement of medication safety in all healthcare settings. ISMP Canada works collaboratively with the healthcare community, regulatory agencies and policy makers, provincial, national and international patient safety organizations, the pharmaceutical industry and the public to promote safe medication practices. ISMP Canada's mandate includes analyzing medication incidents, making recommendations for the prevention of harmful medication incidents, and facilitating quality improvement initiatives.
Preventing harm from medication incidents is a responsibility of health professionals. Consumers like you can also play a vital role.

Reporting Medication Incidents benefits all Canadians.

REPORT NOW

Latest News and Resources

- Caution: Not All Medicines Are Taken Every Day 2015-03-31
- Beware: Medicine Names May Sound Alike, but the Medicines May Be Very Different! 2015-03-18
- Same Brand Name, Different Ingredient 2015-02-12
- Confusion with a Baby’s Dose of Medicine 2015-01-14
- Reminder: Pay Attention to the Appearance of Your Medicines 2014-12-02
- Health Canada Advisory - Unlicensed Home-Use HIV Test Kits via amazon.ca
- Health Canada Advisory - Health Canada reminds Canadians not to use unauthorized health products
- Know When Your Medicine Should Be Stopped! 2014-11-04
- SafeMedicationUse.ca’s Jennifer Turple talks about medication safety and drug interactions on CBC (interview starts at the 22nd minute)
- One Simple Solution for Medication Safety – Doc Mike Evans Video now available!
- Additional information on Mylan Pharmaceuticals nitroglycerin spray recall
Data access and analysis is the foundation of ISMP Canada’s work
Medication incidents submitted to ISMP Canada are analyzed

Incident reports received through:

- Practitioners
  Healthcare Professional - (e.g., nurse, pharmacist, physician)

- General Public
  Preventing harm from medication incidents is a responsibility of health professionals. Consumers like you can also play a vital role.
Outputs from Incidents Submitted

Aggregate Analysis of Medication Incidents in Home Care

Safety in home care is becoming a national focus. The shift from institutional to community care presents new challenges as governments, healthcare organizations, and families try to help patients maintain their full independence as long as possible in the comfort of their own homes. As a result, a growing number of medically complex patients are receiving care in the community with the support of multiple caregivers coordinated by home care agencies. Many of these caregivers (including family members and personal support workers) are attempting to manage complex medication regimens with limited training or education, which may increase the risk of a medication error. Recent home care safety reviews have confirmed that medications are a major cause of preventable adverse events.5 ISMP Canada undertakes a multi-incident analysis to better understand the underlying challenges faced by individuals involved in supporting safe medication use in the home care setting. This bulletin shares findings from the analysis, highlighting the major themes and selected contributing factors, to identify opportunities for systems-based improvements.

Methodology and Overview of Findings

Reports of medication incidents that occurred at home were extracted from voluntary reports submitted to ISMP Canada’s medications incident reporting database from August 1, 2000, to February 28, 2014. Of the 246 incident reports reviewed, only those with descriptive text suggesting the provision of home care (e.g., terms such as “service provider,” “home management,” “home-visitor”) were retained. A total of 153 incidents were included in the final analysis, which was conducted according to the methodology outlined in the Canadian Institute for Health Information’s Analytical Framework.5 Fifty-three (35%) of these incidents resulted in harm to the patient. High alert medications in the community setting (anticoagulants, opioids, hypoglycemic agents, pediatric liquids, immunosuppressants) accounted for 57 (37%) of the total. Antibiotics, proton pump inhibitors, and medications for hypothyroidism were involved in 15 (10%), 7 (5%), and 7 (5%) of the incidents, respectively.

Findings of the Qualitative Analysis

Analysis of the incidents identified 3 main themes (see Figure 1). Some incidents were categorized under more than one theme. The following sections describe each of the main themes in some detail, along with an illustrative example.

Figure 1. Main Themes from the Qualitative Analysis

- Medication Transition Failure
- Complex Communications
- Medication Handling Error

Good Communication Can Help Prevent Harmful Mistakes with Medicines

Everyone experiences communication problems at one time or another. Maybe you’ve missed a meeting because you weren’t told that the location had been changed. Or perhaps you’ve bought the wrong size or brand of an item at the supermarket because you didn’t get enough information from the person who asked you to pick it up. Most communication mistakes come nothing more than an inconvenience. But when it comes to medicines, a lapse in communication could lead to a mistake that could cause extreme harm.

Here is an example of an incident involving a communication breakdown that was reported to SafeMedicationUse.ca. A consumer was taking a medicine called ramipril to control high blood pressure. This medicine comes in several different strengths. The consumer had been taking two of the 10 mg capsules every day, for a total daily dose of 20 mg. However, the doctor thought the consumer was taking two of the 2.5 mg capsules, for a total daily dose of 5 mg. The consumer’s blood pressure was still a bit too high, and the doctor instructed her to increase the dose to 3 or 4 capsules a day. Using the 2.5 mg capsules, the total daily dose would have been 7.5 mg to 10 mg. However, because the consumer used the 10 mg capsules she had on hand, she took 4 times the amount of ramipril that the doctor had intended! Eventually, a family member noticed what had happened. The family had some difficulties setting up the pick-up with the doctor’s office and the pharmacy, but fortunately no harm was reported.

SafeMedicationUse.ca has the following suggestions for preventing communication problems with your medicines:

- Keep a list of all your medicines and how to take them. Be sure to update your list whenever there is a change in any of your medicines. Always share the list with healthcare providers when you receive care.
- Know the strength per unit of each medicine you are taking or using. The total amount to be taken for each dose and how many times a day you take it. The dose and strength are often expressed in grams, milligrams, micrograms, or units (see Figure 1). It is important to know this information for all forms of your medicines (for example, patches, liquids, capsules, injections, and inhalers, as well as tablets and capsules). Document this information on your list of medicines.

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To advance the patient safety agenda, in August 2011 the Ontario Ministry of Health and Long-Term Care issued a directive that hospitals must report critical incidents involving medications and intravenous fluids to the Canadian Institute for Health Information National System for Incident Reporting (NSIH). A critical incident is an “unexpected event that occurs when a patient receives treatment in the hospital that results in death, or serious disability, injury or harm, and does not result primarily from the patient’s underlying medical condition or from a known risk inherent in providing treatment”.

ISMP Canada has been identified as the lead organization for analysis of the reported incidents. A multidisciplinary team reviews each submitted critical incident report to ensure effective identification of the contributing factors. In addition, ISMP Canada will periodically conduct aggregate analysis of reported incidents to provide a more in-depth assessment of events involving a particular medication or care setting. On the basis of these analyses, ISMP Canada will develop and disseminate outcome-directed recommendations, with an emphasis on high-leverage actions that take into account human factors engineering principles and the need to design systems with integrated safeguards.

Bulletins:
- Fluid Management - Iss.12/2015
- Multiple IV Infusions: Risks and Recommendations - Iss.11/2014
- Naloxone Saves Lives - Iss.10/2014
- Sharing Insulin Pens is a High-Risk Practice - Iss.9/2014
- Safe Pain Control in the Emergency Department - Iss.8/2014
- Smart Pumps Need Smart Systems - Iss.7/2014
- Monitoring Processes Contribute to Safe Use of Warfarin - Iss.6/2013
- Promoting the Safe Use of Insulin in Hospitals - Iss.5/2013
- Designing Effective Recommendations - Iss.4/2013
- Quality Medication Reconciliation Processes Are Critical - Iss.3/2013
- HYDROmorphic remains a high-alert drug - Iss.2/2013
- Mandatory Reporting—Can We Do Better? - Iss.1/2012

Analysis Report:
- Ontario Hospital Critical Incidents Related to Medications or IV Fluids Analysis Report - 2014
- Ontario Hospital Critical Incidents Related to Medications or IV Fluids Analysis Report - 2013

Webinars:
- Supporting Medication System Safety and Preparing for your Accreditation Survey: Applying New Tools for Home and Community Care and Acute Care - 2013/05/23
- Medication Safety Learning from Ontario Coroners’ Cases - Focus on Opioids - 2013/03/08
- Hospital Relisted Deaths: The Role of the Coroner’s Office in Enhancing Patient Safety - 2013/01/31

Knowledge Translation Projects:
- Insulin Use Interventions/Safeguards
Naloxone Saves Lives

Cicadas constitute a class of high-alert medications whose toxic effects can cause sedation, confusion, and respiratory depression and can lead to death. Fortunately, an effective and life-saving reversal agent—naloxone—is available. Naloxone temporarily reverses the opiate at the site of the drug, countering the toxic effects. With appropriate monitoring, patients known or suspected to be experiencing an opioid overdose can be identified and rescued from the effects of opiate exposure with timely administration of naloxone and the initiation of other medical interventions.

Naloxone has a shorter duration of effect than some opioids, and since it has been available for a few years, it is placed in the body there is a risk that the pharmacological effects of the opioid will re-emerge. Naloxone overdose is a common cause of accidental maternal mortality.

Knowledge translation projects – e.g., Insulin Use Interventions; see: http://www.ismp-canada.org/insulin/
New Resources

For Home and Community Care:
• Home Care Organizations Medication Safety Self-Assessment®
• Home and Community Care Personal Support Worker Organizations Medication Safety Self-Assessment®

For Acute Care:
• Hospital to Home – Facilitating Safe Medications at Transitions Toolkit
• Epidural Label Safety Checklist
• Updated Hospital Medication Safety Self-Assessment®
New Hospital to Home Facilitating Safe Medication Transitions Toolkit

Lisa Sever
Medication Safety Specialist
ISMP Canada, and
Medication Safety Lead at Home Care Rx
Contents of the Toolkit

- Patient story
- How this will benefit the patient experience
- Rationale for developing a toolkit and checklist
- Identify your target population
- Define key players- roles and responsibilities
- Home support for medication follow-up
- Pharmacists – a good return on investment
- Change ideas, overcoming barriers
And the Checklist....

Interventions to reduce medication errors when a patient goes from hospital to home.
“It is one of the most rewarding parts of my job, improving the patient’s understanding of their medications and to help them feel more confident about taking their medications when they go home. It really helps improve their overall experience at the hospital if we take the time to address all of their medication questions and ensure supports are there for them if they need it.

The checklist prompts me to systematically go through each step so that the medication information we send with the patient and to their healthcare providers is accurate and complete. It’s about passing the baton to ensure the patient can succeed at home.”

Clinical pharmacist
Alice Watt

Clinical Pharmacist
Markham Stouffville Hospital Corporation, and
Medication Safety Specialist
ISMP Canada
Alignment with Accreditation Canada Required Organizational Practices (ROPs)

- Medication reconciliation as a strategic priority
- Medication reconciliation at care transitions
- Information transfer at care transitions

# ROP: Information transfer at care transitions

<table>
<thead>
<tr>
<th>Tests for compliance</th>
<th>Assists</th>
</tr>
</thead>
<tbody>
<tr>
<td>The information that is required to be shared at care transitions is defined and standardized for care transitions where clients experience a change in team membership or location: admission, transfer, and discharge</td>
<td>✓</td>
</tr>
<tr>
<td>Documentation tools and communication strategies are used to standardize information transfer at care transitions.</td>
<td>✓</td>
</tr>
<tr>
<td>During care transitions, clients and families are given information that they need to make decisions and support their own care.</td>
<td>✓</td>
</tr>
<tr>
<td>Information shared at care transitions is documented.</td>
<td>✓</td>
</tr>
<tr>
<td>The effectiveness of communication is evaluated and improvements are made based on feedback received.</td>
<td></td>
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</tbody>
</table>

New Medication Safety Self-Assessments® for the Home and Community Care Sectors

Lisa Sever
Medication Safety Specialist
ISMP Canada, and
Medication Safety Lead at
Home Care Rx
Medication systems are complex

• Integration of patient specific information
• Communication, sharing, interpretation, assessment and interventions related to medication information
• Handling, processing, labelling, assisting with, administering, monitoring and disposing of medications
• Responsibility, competency, collaboration and knowledge of the team / patient
Why do an MSSA?

• Indicates the organization is committed to improving medication safety

• Provides heightened awareness of safe medication practices in the home setting

• Initial assessment provides a baseline evaluation which can then be compared upon reassessment
How to conduct an MSSA

• Appoint a team leader
• Register with ISMP Canada
• Establish an interdisciplinary team, book two meetings (1-2 hrs in length)
• Team answers the questions and enters them into the secure ISMP Canada database
• Print, compare and examine report
• Choose medication safety initiatives to implement or refine in your organization
Sample Questions (Both MSSAs)

Rating Scale

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>This item is applicable, but there has been no activity to implement</td>
</tr>
<tr>
<td>B</td>
<td>This item has been formally discussed for possible implementation, but is not implemented at this time</td>
</tr>
<tr>
<td>C</td>
<td>This item has been partially implemented, requires more internal development</td>
</tr>
<tr>
<td>D</td>
<td>This item has been partially implemented, requires more collaboration with partners</td>
</tr>
<tr>
<td>E</td>
<td>This item has been fully implemented</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Self-Assessment Items</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 The organization has adopted a standardized definition for MEDICATION MANAGEMENT.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2 There are standardized MEDICATION MANAGEMENT role definitions for each team member including patient, caregiver, staff, and unregulated and regulated providers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 The organization has adopted criteria that identify patients in MEDICATION RISK situations. FAQ 2.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sample Questions for PSW Organizations

The organization has a standardized process, supported by a written policy and procedure, to create a client-specific medication care plan for monitoring the effects of medications and to follow through with appropriate interventions, when required.

The organization has a standardized process to ensure the medication list and medication care plan are updated when changes are made and communicated to the assigned PSW.
Sample Questions for Home Care Organizations

All medication lists received from other care providers (e.g., hospital, physicians, nursing providers, pharmacists) are dated, stored in patient-specific records, and are shared with or viewable by all service providers supporting medication-related activities.

Laboratory results are stored in patient-specific records and are shared with or viewable by all service providers supporting medication-related activities.

Parenteral medication therapy referrals include patient weight, height, serum creatinine with date obtained and indication for use.
Norm Umali
Pharmacist
Toronto Central Community Care Access Centre
Opportunity made here.

Bruce Graham
Senior Manager Compliance and Innovation
WoodGreen Community Services
Accreditation Canada Required Organizational Practices (ROP)

• Client Safety Prospective Analysis

<table>
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<tr>
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<tr>
<td>At least one prospective analysis has been completed within the past year.</td>
<td>✓</td>
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</table>


• Also, Medication Management standards recommend a regular comprehensive evaluation of the medication system
New Epidural Label Safety Checklist

Julie Greenall
Director of Projects and Education
ISMP Canada
Why a Checklist for Epidural Labels?

- Increased attention to medication labelling beyond oncology (Thiessen Report, 2013*)
- Increased external compounding by specialty pharmacies, drug preparation premises, manufacturers
  - May increase variability in label information content and design vs. in-house preparation in hospitals.
- Particular risk – epidural products resemble products intended for intravenous use
  - Local anaesthetic component is cardiotoxic if given IV

Why a Checklist for Epidural Labels?

It is crucial to consider the intended use of the product and the needs of the end user for each medication label.

Label content and design have been identified as contributing factors to numerous medication incidents.
Epidural Label Safety Checklist

Designed to:

• Heighten awareness of the characteristics of a safe label for medications intended for administration by the epidural route

• Assist organizations to evaluate label content and design for epidural products

• Provide a baseline for hospital efforts to enhance the safety of epidural medication use
Checklist Content

• 14 items in 4 sections:
  • Label content
  • Label design
  • Label position
  • Other considerations
## Checklist Content

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>There has been <strong>no activity</strong> to implement this item for any epidural labels</td>
</tr>
<tr>
<td>B</td>
<td>This item has been <strong>formally considered but not implemented</strong> for any epidural labels</td>
</tr>
<tr>
<td>C</td>
<td>This item has been <strong>partially implemented for some epidural labels</strong> or in some areas of the organization</td>
</tr>
<tr>
<td>D</td>
<td>This item is <strong>fully implemented for all epidural labels in some areas</strong> of the organization</td>
</tr>
<tr>
<td>E</td>
<td>This item is <strong>fully implemented for all epidural labels throughout</strong> the organization</td>
</tr>
<tr>
<td>NA</td>
<td>Not applicable; selected items only</td>
</tr>
</tbody>
</table>

## 1. LABEL CONTENT

**1.4** For epidural products containing both a local anaesthetic and an opioid, the anaesthetic agent is listed first on the label followed by the opioid (e.g., bupivacaine 0.1% and fentanyl 2 mcg/mL).

*Choose NA if your organization does not use or prepare epidurals with more than one ingredient.*
Pilot Test Results

Participation:
• 142 downloads
• 47 password requests
• 12 organizations submitted data

Results:

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Assessment item</th>
<th>% of achievable score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>For epidural products containing both a local anaesthetic and an opioid, the anaesthetic agent is listed first on the label</td>
<td>52.1</td>
</tr>
<tr>
<td>2.2</td>
<td>A non-condensed, sans serif type style in the largest point size possible is used. (A minimum of 12 point is recommended.) The use of mixed case lettering may enhance readability.</td>
<td>66.7</td>
</tr>
<tr>
<td>2.3</td>
<td>Critical information is highlighted using contrasting type characteristics (e.g., <strong>bolding</strong>, colour)</td>
<td>62.5</td>
</tr>
<tr>
<td>4.2</td>
<td>End user (e.g., nurse, physician) testing of the legibility and readability of the label has been completed, ideally using a simulation process that replicates actual practice.</td>
<td>64.6</td>
</tr>
</tbody>
</table>
Sample Epidural Labels

These labels are provided as illustrative examples only and should not be considered for implementation without review of applicable labelling regulations/guidelines and end-user testing.
Who should use the Epidural Checklist

• Designed for organizations that prepare, dispense or administer epidural medications

• If your organization does not use epidural medications, some aspects of this checklist may be applicable to other medication label content and design
  • But you will not be able to complete the electronic data submission and assess your data against the aggregate responses
Kathryn McLenaghan
Manager of Pharmacy Services,
North Bay Regional Health Centre
Accreditation Canada Required Organizational Practices (ROP)

• High-Alert Medications

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<td>The [high-alert] policy includes procedures for storage, prescribing, preparation, administration, dispensing and documentation for each high-alert medication, as appropriate.</td>
<td>✓</td>
</tr>
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</table>

Updated Hospital Medication Safety Self-Assessment®

Julie Greenall
Director of Projects and Education
ISMP Canada
An effective resource for proactively assessing the risk of medication-use systems and enhancing an organizational culture of safety
Updated Hospital MSSA – Version III

• Incorporates:
  • New learning from the Ontario Critical Incident Learning program
  • Learning from other incidents reported to ISMP Canada
  • Adapted content from the 2011 ISMP (US) Medication Safety Self Assessment for Hospitals
• ISMP Canada working with Accreditation Canada to assess ability to indicate alignment between MSSA and Medication Management standards to support organizations preparing for Accreditation
Selected Highlights of New Content – Learning from OCIL

• A rescue protocol has been developed for naloxone that supports rapid administration when opioid toxicity/overdose is suspected
  • There is regular review of availability of specific antidotes and reversal agents in the facility generally and in each clinical area

• Smart pump drug libraries are configured for use throughout the hospital, rather than for individual care units

• Insulin pens are labelled with pharmacy-generated, patient-specific labels, for single patient use only and labels are placed on the barrel of the insulin pen
Accreditation Canada Required Organizational Practices (ROP)

- Client Safety Prospective Analysis

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- Also, Medication Management standards recommend a regular comprehensive evaluation of the medication system
ISMP Canada’s Other Self Assessment Programs

All Medication Safety Self-Assessments®
available at www.ismp-canada.org/mssa

*with support from the Ontario Ministry of Health and Long-Term Care
“The most detrimental error is failing to learn from an error.”

James Reason
How to access these resources

Medication Safety Self-Assessments®

• [www.ismp-canada.org/mssa](http://www.ismp-canada.org/mssa)

Hospital to Home Checklist and Toolkit

• [www.ismp-canada.org/ocil](http://www.ismp-canada.org/ocil)

Epidural Label Safety Checklist

• [www.ismp-canada.org/mssa](http://www.ismp-canada.org/mssa)

Available Summer 2015

Questions? email [info@ismp-canada.org](mailto:info@ismp-canada.org)
Complimentary Across Canada

HOSPITAL TO HOME—FACILITATING SAFE MEDICATIONS AT TRANSITIONS TOOLKIT

Available at www.ismp-canada.org/ocil
Stay Informed with the Ontario Critical Incident Learning program

Sign up now for our newsletter

email: ontario@ismp-canada.org
Stay Informed

Sign up for ISMP Canada bulletins and newsletters

Visit www.ismp-canada.org and click on Stay Informed at the bottom of the home page
Upcoming Educational Events

October 1, 2015  Incident Analysis Framework: Train-the-Trainer Workshop (For PSEP – Canada Trainers) - Toronto, ON

October 22, 2015  BPMH Training for Pharmacy Technicians - Toronto, ON

November 5-6, 2015  Medication Safety for Pharmacy Practice: Incident Analysis and Prospective Risk Assessment - Toronto, ON

Visit  www.ismp-canada.org/education
We encourage you to submit medication incidents to NSIR or ISMP Canada

www.ismp-canada.org/err_index.htm

PLEASE TAKE OUR POLL
2. Type your question in the chat box

3. Email your question to webinars@ismp-canada.org
Thank you for attending

Additional questions?

email  info@ismp-canada.org
We all have a role in preventing harm from medication incidents.

Visit:

ismp-canada.org

SafeMedicationUse.ca

Knowledgeisthebestmedicine.ca