

CRITICAL Incident Learning

Demystifying the Critical Incident Reporting Process

October 21, 2015



Ontario

Today's Facilitator



Janica Chan BScPhm, RPh, BCPS, CDE, PharmD Candidate



Disclosure

There are no actual, potential or perceived conflicts of interests to declare associated with the content of this presentation.



About ISMP Canada

ISMP Canada is an independent national not-forprofit organization committed to the advancement of medication safety in all healthcare settings.

We work 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.

Our aim is to heighten awareness of system vulnerabilities and facilitate system improvements.



ISMP Canada

ISMP Canada's Vision

 Canada's leading organization and advocate for medication safety through analysis and prevention of medication incidents.

Purpose

 To identify risks in medication use systems, recommend optimal system safeguards, and advance safe medication practices.





10

Aa

What is Your profession?



Physician



Nurse



Pharmacist



Technician



Manager



Administration



Other



Objectives

At the end of this session, participants will be able to:

- Recognize how critical incident reporting helps strengthen Ontario hospitals' ability to prevent or reduce the risk of harmful medication incidents.
- Understand how individual incidents are translated into learning for hospitals through the Ontario Critical Incident Learning program.
- Be able to generate high-quality incident reports.



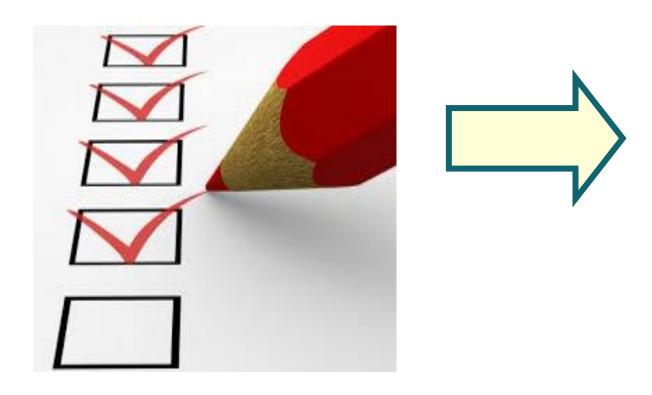
Critical Incident

- "In Reg 965 of the Public Hospitals Act (PHA), a critical incident is defined as any unintended event that occurs when a patient receives treatment in a hospital:
 - that results in death, or serious disability, injury or harm to the patient; and
 - does not result primarily from the patient's underlying medical condition or from a known risk inherent in providing treatment."

http://www.health.gov.on.ca/en/pro/programs/ecfa/legislation/criticalincident/update.aspx



Please Complete Our Poll





Today's Speakers



Annie Walker, Program Lead, Pharmaceuticals, CIHI



Michael Hamilton BSc, BEd, MD
Physician Lead and Medication Safety
Specialist
ISMP Canada



Candace Epworth, RN, BScN, PANC(C) Medication Safety Specialist ISMP Canada





Annie Walker,
Program Lead, Pharmaceuticals,
CIHI



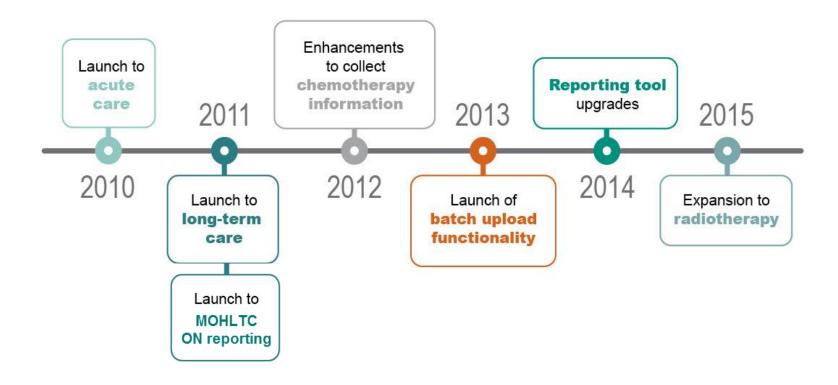


NSIR - National System for Incident Reporting











Medication Incident Reporting to NSIR



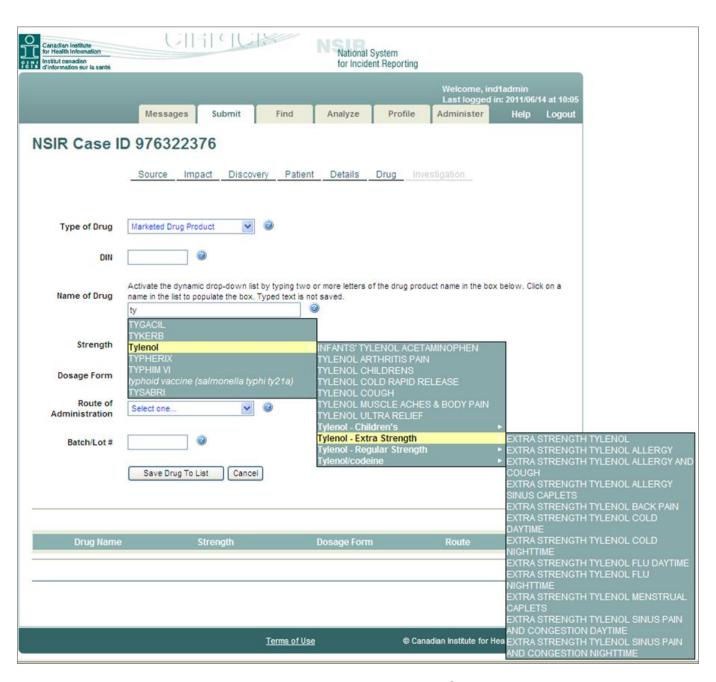








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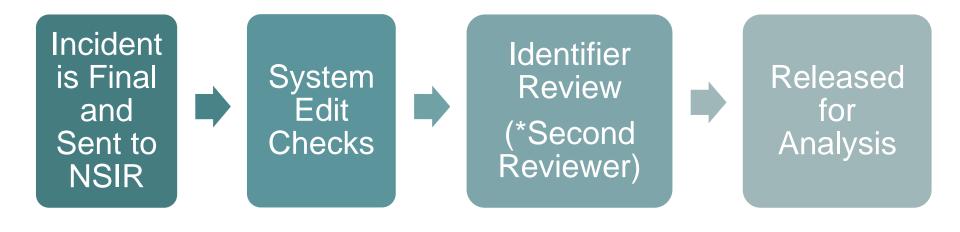




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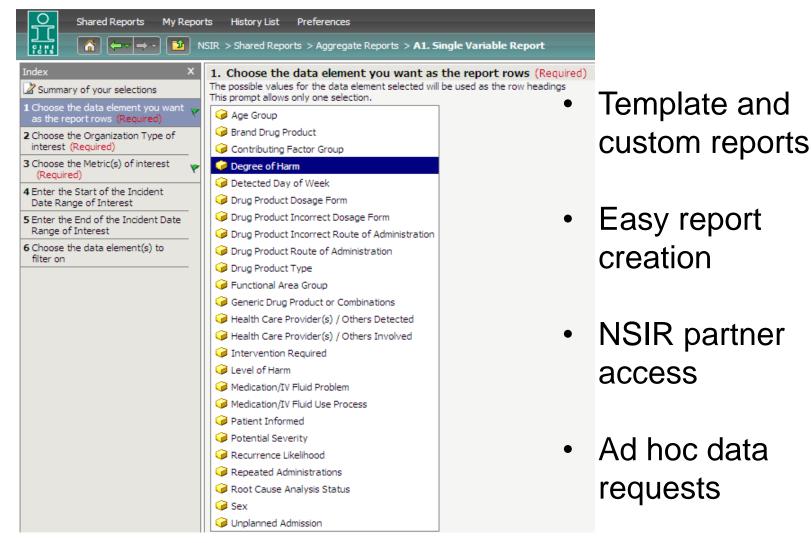


NSIR Incident Submission Processing





NSIR Analytical Tool: Learning Through Analysis and Data Use











Michael Hamilton BSc, BEd, MD Physician Lead and Medication Safety Specialist ISMP Canada



What We Do at ISMP Canada

- Collect incident reports
- Collaboratively analyze critical incidents and significant near misses
- Provide safe medication practice recommendations and strategies
- Work with stakeholders to make changes
- Disseminate and share learning via publications and workshops
- Facilitate safe practice implementation



Ontario NSIR Initiative

A Collaborative Initiative of

- Ontario Ministry of Health and Long-Term Care
- Health Quality Ontario (HQO)
- Canadian Institute for Health Information
- Institute for Safe Medication Practices Canada
- Ontario Hospital Association
- You and your organization



ISMP Canada Roles in Ontario Critical Incident Reporting

- Qualitative analysis of incidents reported to CIHI NSIR program
- Development of safety strategies
- Dissemination of findings Bulletins,
 Webinars, Presentations



Critical Incident

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Critical Incident Life Cycle

- Hospital NSIR administrator must submit a <u>critical incident</u> into NSIR **AND** CIHI releases the de-identified incident
- ISMP Canada receives these incidents on a biweekly basis
 - Anonymous view only
 - Can only view critical incidents that have been released



Critical Incident Reporting Process

Critical Incident Reported to NSIR



Critical Incident Life Cycle (con't)

- ISMP Canada reviews incident and attempts to contact reporter for additional information and permission to share learning
 - Initially through communication tool within NSIR
 - Subsequently through an email message sent from CIHI to the hospital NSIR administrator's hospital email account



Critical Incident Reporting Process

Critical Incident Reported to NSIR

ISMP Canada Review by Candace Epworth





ISMP Canada Analysis Team





Critical Incident Reporting Process

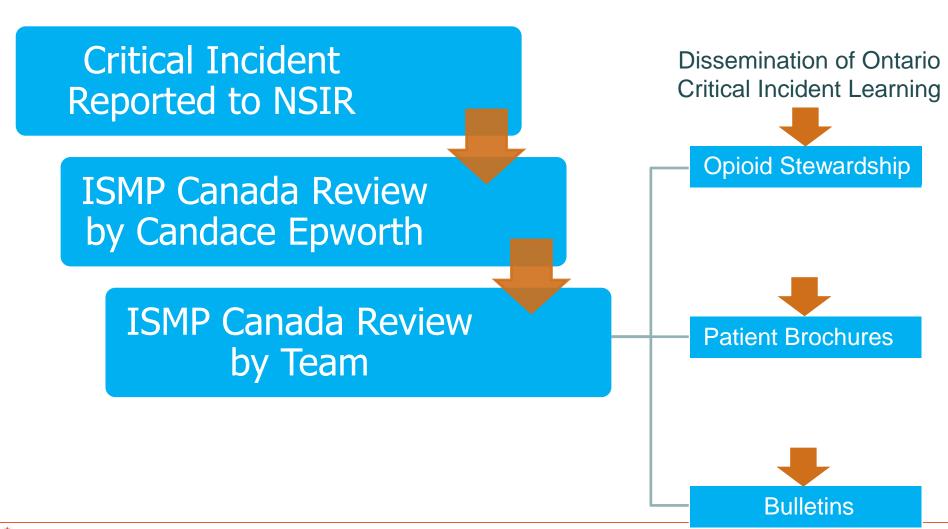
Critical Incident Reported to NSIR

ISMP Canada Review by Candace Epworth

ISMP Canada Review by Team



Critical Incident Reporting Process





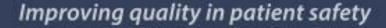


Candace Epworth RN, BScN, PANC(C) Medication Safety Specialist ISMP Canada



In a Culture of Safety

Focus is on **how and when** a system will fail, not if it will fail.



CRITICAL Incident Learning

Changing to a Culture of Safety Person Approach vs. Systems Approach



The Person Approach

"The person approach focuses on the errors of individuals, blaming them for forgetfulness, inattention, or moral weakness."



J. Reason, March 18, 2000, BMJ





Moving Away from "Blame & Shame"

What allowed it? Who did it? Thank you for **Punishment** reporting! Errors are everywhere Errors are rare Add more layers Simplify/standardize



Systems Approach

"The systems approach is not about changing the human condition, but rather the conditions under which humans work"

J.T. Reason 2001



Handwritten Orders	60 Regular Insulin Now	
Problematic Abbreviations	Result: 10-fold dosing error & patient har	
Confirmation Bias		
Environmental Factors		
Multiple Distractions		



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Problematic Abbreviations	Result: 10-fold dosing error & patient hard	
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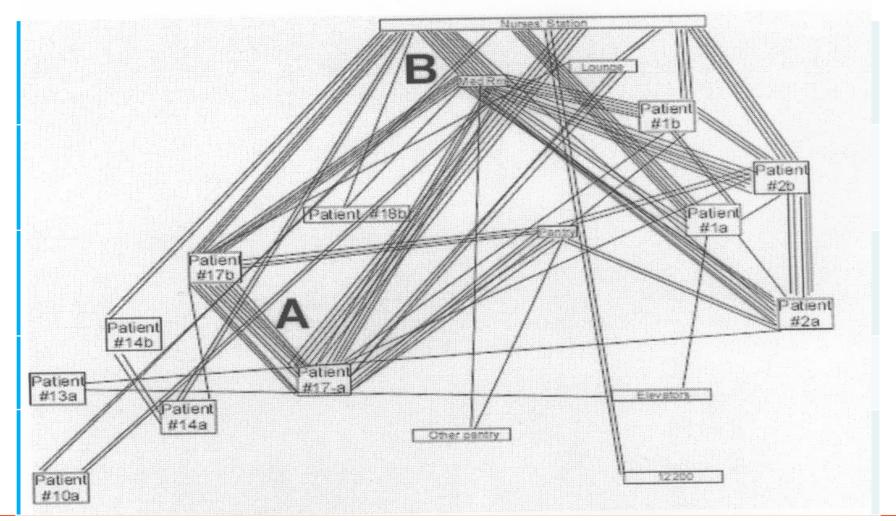




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Problematic Abbreviations	Result: 10-fold dosing error & patient harn	
Confirmation Bias	The pweor of the hmuan mnid	
Environmental Factors	PORTOR IN THE PROPERTY OF THE	
Multiple Distractions		



Figure 1. Link analysis for RN #1





Poor Handwriting

Bad Abbreviations

60 Regular Insulin Now Result: 10-fold dosing error and patient harm

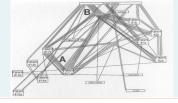
Confirmation bias

Environmental factors

Multiple distractions

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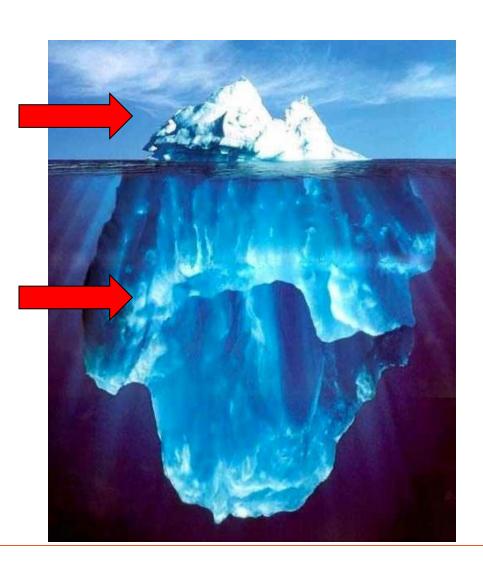
Incident Reporting



Tip of the Iceberg

Number of Incidents Reported

Actual Number of Incidents





Incident Reporting

 Risk management processes needed to track all unusual occurrences / incidents

Organizational policies needed to respond to and review critical incidents

 Endorsement from Medical Advisory Committee and Administration



Incident Review Process: Lessons for Health Care

Transparent to all health care providers

Fair treatment applied consistently

 Human resources processes (discipline) separated from quality review



Health workers encouraged to admit errors

'Breaking Silence' conference focus is on prevention

BY VANESSA LU HEALTH POLICY REPORTER

Medical mistakes occur regularly in the health-care system, but Canada has no mechanism for reporting or tracking them. prescription or interpreting it incorrectly.

"There are many underlying causes: bad handwriting, the work environment, a heavy workload or even too many drugs prescribed, leading to interaction."

In the United States, 7,000 deaths a year are attributed to medication errors, with some studies suggesting 98,000 deaths are linked, at least in part, to a mistake. Applied to

The Toronto Star April 20, 2001

Good Reporting

- Make sure you give as much detail as possible
- If using check boxes elaborate in your story
 - I.e., check box workload actually state in your story 2 sick calls not replaced
 - Fatigue too many shift working short etc.
- Include strategies recommended by the reporting facility



Example of Incomplete Reporting

Description of Incident		
Describe medication error with as much detail as possible	Patient ordered Hydromorphone 2mg po q4h prn. Nurse gave 2mg IV push. Patient found unresponsive, unable to resuscitate.	
Contributing factors:	distractions/frequent interruptions, attention issues-failure to remember, performance factors-unspecified, drug product confusion, work around-shortcut, delay in action.	

Fictional Case



Example of Good Reporting

Description of Incident

Describe medication error with as much detail as possible

Patient ordered Hydromorphone 2mg po q4h prn. Nurse gave 2mg IV push. Nurse also caring for disruptive patient on floor with 3 sick calls. Nurse on 4th 12 hour shift, called in as overtime shift. Unable to return to patient's room to observe for 35 minutes as a code white was called for the disruptive patient. Nurse found patient unresponsive, code blue called, unable to resuscitate patient.

Contributing factors

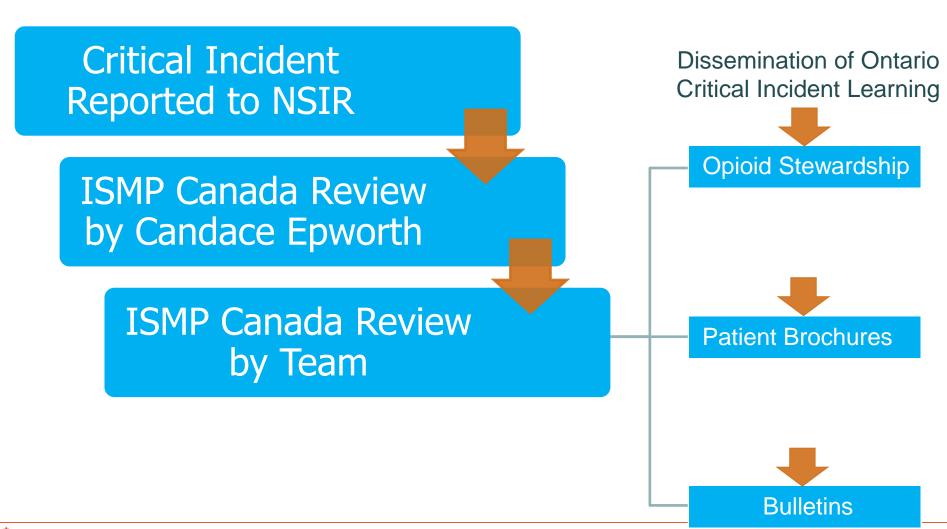
distractions/frequent interruptions, attention issuesfailure to remember, performance factors-unspecified, drug product confusion, work around-shortcut, application of poor procedure/protocol, organizational factors, quality control-double/independent check, delay in action, shortage of staff.

Good Reporting Tips Checklist

- ✓ Pick the proper Degree of Harm
 - <u>Severe</u>: Outcome is symptomatic, requiring life-saving intervention or major surgical/medical intervention, or shortening life expectancy or causing major permanent, long-term harm or loss of function.
 - <u>Death:</u> On balance of probabilities, the incident was considered to have played a role in the patient's/resident's death.
- ✓ Fill in contributing factors first
- ✓ Write your description expanding on these factors
- ✓ Try to never use "other" as a choice in reporting
- ✓ Report using a systems approach, not individual



Critical Incident Reporting Process





Improving quality in patient safety

CRITICAL Incident Learning

Issue 4 April 2013

Distributed to:

- · Chief executive officers
- Chiefs of staff
- · Board chairs
- Quality/patient safety leads
- · Directors of pharmacy

Suggested action items:

- Circulate bulletin to frontline staff and physicians
- Refer bulletin to quality and safety committees to encourage appraisal of effectiveness of hospital's recommendations and assessment of hospital's quality improvement initiatives
- Use bulletin as an educational resource in your hospital's safety huddles or rounds

Designing Effective Recommendations

The reporting, investigation, and analysis of medication incidents are important elements in improving patient safety, but these efforts must be accompanied by effective strategies to mitigate the contributing factors leading to the incidents.

Advice for Hospitals

- Review patient safety incidents using a systematic, teamoriented approach, as described in the Canadian Incident Analysis Framework.¹
- Recognize that certain types of risk-mitigation strategies are more effective than others. Mitigation strategies can be ordered by hierarchy of effectiveness:²

SYSTEM-Based

PERSON-Based

Low Leverage

Rules and policies (e.g., policies to prohibit borrowing doses from other areas)

Education and information (e.g., education sessions on high-alert medications)

Medium Leverage MODERATELY EFFECTIVE

Simplification and standardization (e.g., standardized paper or electronic order sets)

Reminders, checklists, double checks (e.g., independent double checks for high-alert medications)

High Leverage

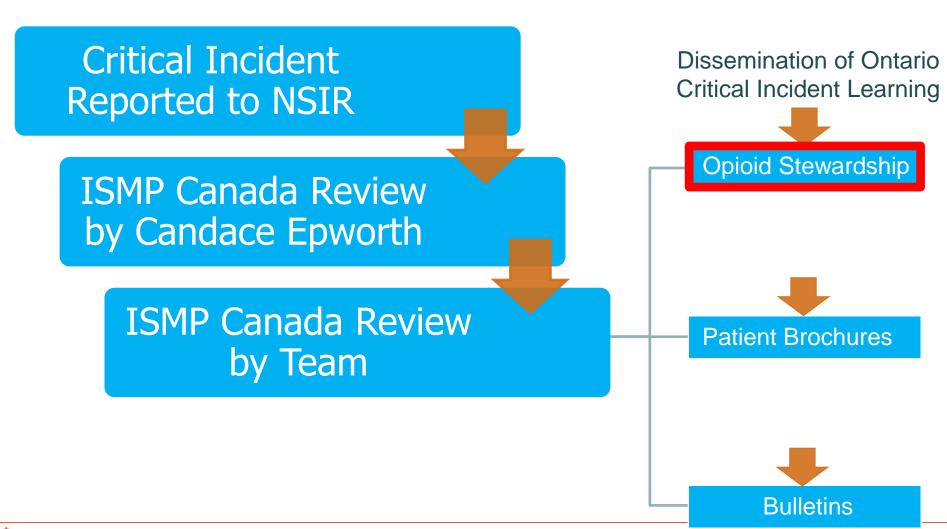
Forcing functions and constraints (e.g., removal of a product from use)

Automation or computerization (e.g., automated patientspecific dispensing)

HIERARCHYOFEFFECTIVENESS



Critical Incident Reporting Process







Institute for Safe Medication Practices Canada

A Key Partner in the Canadian Medication Incident Reporting and Prevention System (CMIRPS)

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Opioid Stewardship

Opioid medications are used to treat pain. Opioids are also known as narcotics. In recent years m opioids. Along with this increased use of opioids there has also been a corresponding and alarming

ISMP Canada is the leading medication safety organization in Canada. Through our ongoing analysincluding death-when they are prescribed, used or administered incorrectly or in error.

In response, we have created an **Opioid Stewardship Program** to help people to become bette the public and health care practitioners with useful and accurate information regarding opioids.

WATCH and learn:



VIDEO: Consumers Can Help Prevent Harm from Opioid Use!

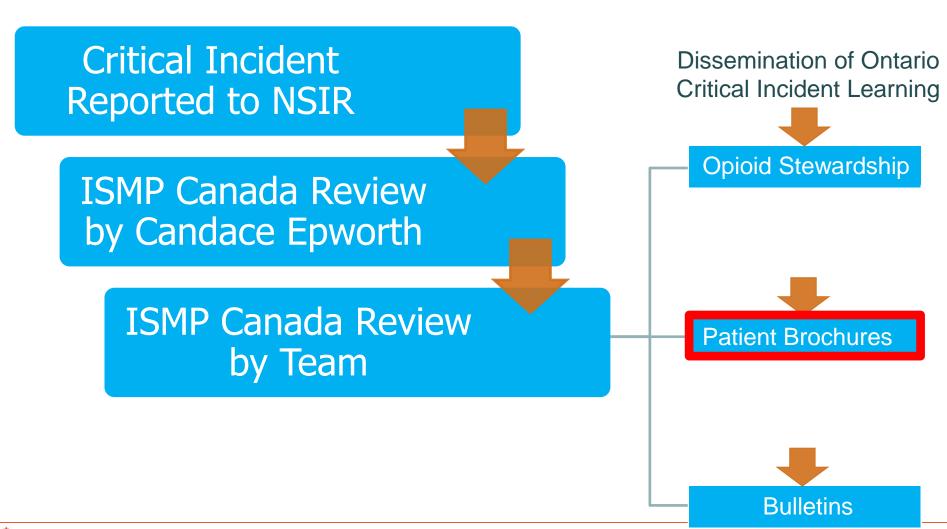
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Have ques

Email us a



Critical Incident Reporting Process





Information for Patients and Families about Opioid Pain Medicines

Opioid medicines are used to treat pain. Opioids are also known as *narcotics*. These medicines may be needed while you are in hospital and also after you go home. This information sheet will review some important safety information about opioids.

Patients, family members, and other caregivers can play an important role in the safe use of these medicines by becoming better informed.

With opioids there is a fine balance between effective pain control and dangerous side effects.

GOAL

Safe balance between pain control and side effects

Requires regular assessment of opioid effect and need

Pain Management Not Effective

Safe Balance

Dangerous Side Effects

Examples of Opioids

BRAND NAMES

Tylenol #1,2,3; Atasol 8,15,30

Hydromorph Contin

Statex, MS Contin,

OxyContin, OxyNEO

Tramacet, Ultram,

Duragesic

Dilaudid,

M-Eslon

Percocet,

Zytram XL

GENERIC NAME

Hydromorphone

Codeine

Fentanyl

Morphine

Oxycodone

Tramadol

How is pain assessed?

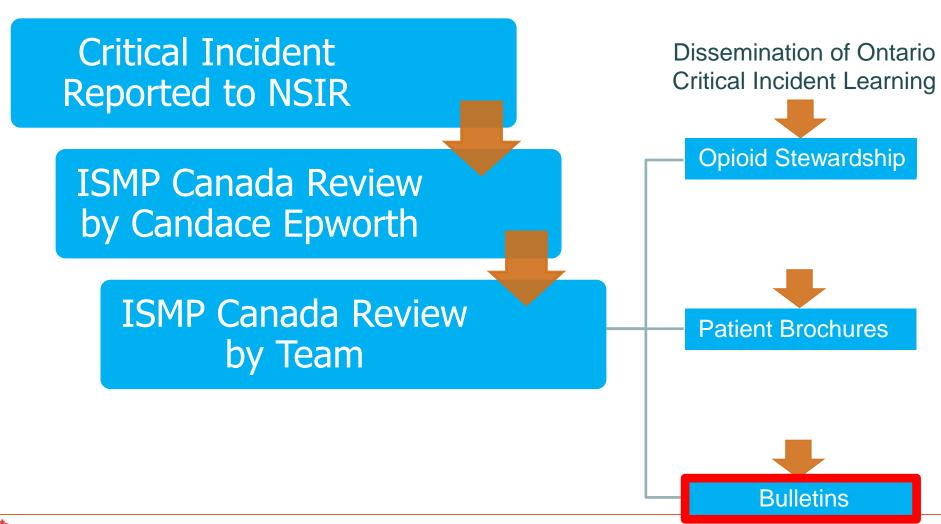
- Pain scales (e.g., 0 to10) are often used to help the healthcare team assess pain and monitor the effect of pain medicines.
- Only you can describe the level of pain you are feeling.

contact my healthcare team?

When should I



Critical Incident Reporting Process





Improving quality in patient safety

CRITICAL Incident Learning

Issue 2 February 2013

Distributed to:

- · Chief executive officers
- Chiefs of staff
- · Board chairs
- · Quality/patient safety leads
- · Directors of pharmacy

Suggested action items:

- Refer bulletin to pharmacy and therapeutics committee for evaluation of pharmacy practices and for comment to the medical advisory committee
- Refer bulletin to nursing leadership committees for evaluation of nursing

HYDROmorphone remains a high-alert drug

The following report shares learning from a fatal HYDROmorphone incident that occurred in an Ontario hospital.

Background

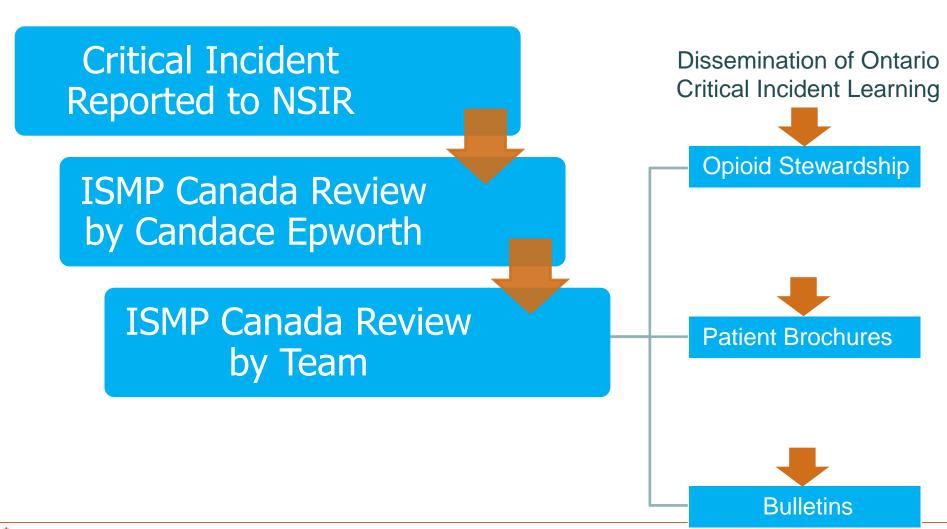
- HYDROmorphone 0.2 to 0.4 mg subcutaneously every hour as needed for pain was prescribed for a patient.
- A 10-fold dosing error occurred, whereby HYDROmorphone 4 mg was administered instead of the 0.4 mg ordered.
- The dose had been drawn from a high-concentration (10 mg/mL) vial of HYDROmorphone.
- Although the facility did not maintain high-concentration HYDROmorphone as floor stock, it was not uncommon for nurses to borrow HYDROmorphone from patient-specific stock.
- The patient was found without vital signs shortly after administration of the HYDROmorphone.

Learning from Analysis

 Consistent with other reported HYDROmorphone administration errors, the availability of a high-concentration HYDROmorphone product played a significant role in the incident.¹



Critical Incident Reporting Process





Impact of Reporting

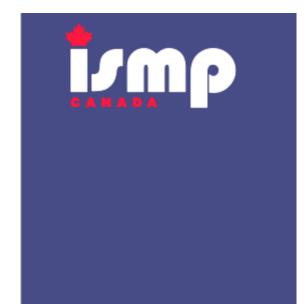
- Connection with ISMP Canada to share incident experience and other related learning
- Receipt of timely feedback and assistance, if needed
- Learning from the incident and subsequent corrective system actions can be shared and benefited by all Ontario and Canadian healthcare facilities
- Support and encouragement of patient safety culture





Michael Hamilton BSc, BEd, MD Physician Lead and Medication Safety Specialist ISMP Canada





Ontario Hospital Critical Incidents
Related to Medications or IV Fluids
Analysis Report

January to December 2014



Overview

Critical Incidents	
Year	Number of Reports
2014	27
2013	29
2012	29*
	*Proportional contribution from Year 2012



Overview

Critical Incidents by Degree of Harm				
Year	Deaths	Severe harm		
2014	4	23		
2013	6	23		
2012	8*	21*		
	*Proportional contribution from Year 2012			



Medication/IV
Fluid Use Process

- In 2014, at what stage in the medication use process was a critical incident most likely to occur?
 - Prescribing
 - Transcribing
 - Preparation/Dispensing
 - Administration
 - Monitoring





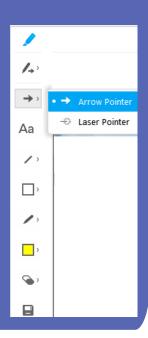
Medication/IV
Fluid Use Process

- In 2014, at what stage in the medication use process was a critical incident most likely to occur?
 - Prescribing → 3
 - Transcribing → 5 (verification and documentation)
 - Preparation/Dispensing → 3
 - Administration → 12
 - Monitoring → 2



Patient Care
Areas

- In 2014, where in a facility was a critical incident most likely to occur?
 - Surgical area
 - Oncology area
 - Emergency department
 - Intensive Care Unit
 - Medical/Surgical Ward
 - Mental Health area





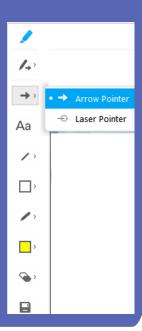
Patient Care
Areas

- In 2014, where in a facility was a critical incident most likely to occur?
 - Surgical area → 4
 - Oncology area → 2
 - Emergency department → 9
 - Intensive Care Unit → 3
 - Medical/Surgical Ward → 3
 - Mental Health area → 2



Medication/IV Fluid

- In 2014, what class of drug was more likely to be involved in a critical incident?
 - Anti-neoplastic
 - Anti-coagulant
 - Thrombolytic
 - Opioids
 - Insulin





2014 Analysis Report

Medication/IV Fluid

- In 2014, what class of drug was more likely to be involved in a critical incident?
 - Anti-neoplastic → 4
 - Anti-coagulant → 2
 - Thrombolytic → 2
 - Opioids → 9
 - Insulin → 0



Qualitative Learning from 2014 Analysis Report

Naloxone Rescue Systematic approaches to monitoring can detect a patient at risk of opioid toxicity and trigger an appropriate response.

Patient Factors

Allergies, weight, co-morbidities, co-prescribed drugs, diet all influence how a drug behaves in a patient. This information needs to influence how we manage drugs in a patient.

Multiple Products

The standardization of medication products to ensure consistency and simplification is supported.

The use of independent double checks for highalert medications is recommended.







Aa

Which of the following are <u>critical</u> incidents that should be reported to NSIR?

- a) Patient received penicillin despite allergy documented, and had an anaphylactic reaction.
- b) Patient sustained burns to his arm after dietary services spilled hot soup on him.
- c) Patient had a hypoglycemic incident after being given too much rapid acting insulin.
- d) Sinemet IR was given instead of Sinemet CR and the patient had uncontrollable symptoms of Parkinson's disease.



Take Home Messages

- Acute care critical incident reporting through NSIR is mandatory
- Detail and rich information is key to analysis, learning and developing prevention strategies
- Critical reporting identifies opportunities to mitigate risks and improve patient safety





Candace Epworth RN, BScN, PANC(C) Medication Safety Specialist ISMP Canada



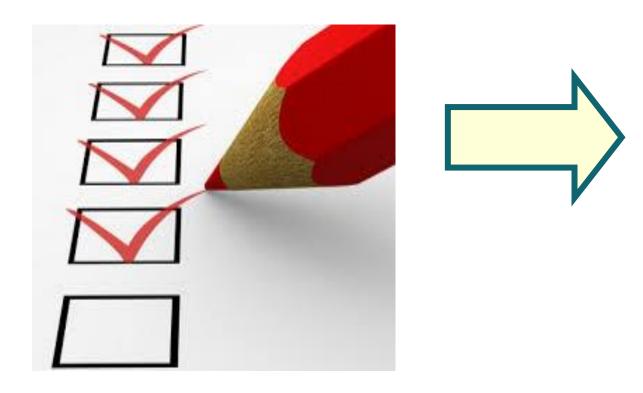


👯 Participants ◆
Name △ 1 of 1 ready Feedback Panelists: 1 **ISMP Canada (Host)** Attendees: 0 Make Presenter +2 -Audio Chat **All Participants** Send to: Select a participant in the Send to menu first, type Send chat message, and send...

2. Type your question in the chat box



Please Complete our Poll







👯 Participants ◆
Name △ 1 of 1 ready Feedback Panelists: 1 **ISMP Canada (Host)** Attendees: 0 Make Presenter +2 -Audio Chat **All Participants** Send to: Select a participant in the Send to menu first, type Send chat message, and send...

2. Type your question in the chat box



ISMP Canada's Other Self Assessment Programs

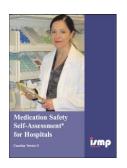


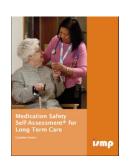




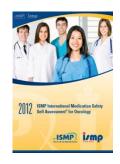


HYDROmorphone Safety Self-Assessment®









Hospital Self-Assessment® for Anticoagulant Safety

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

*with support from the Ontario Ministry of Health and Long-Term Care and HQO



How to Access These Resources

Medication Safety Self-Assessments®

www.ISMP-canada.org/mssa

Hospital to Home Checklist and Toolkit

www.ISMP-canada.org/ocil

Epidural Label Safety Checklist

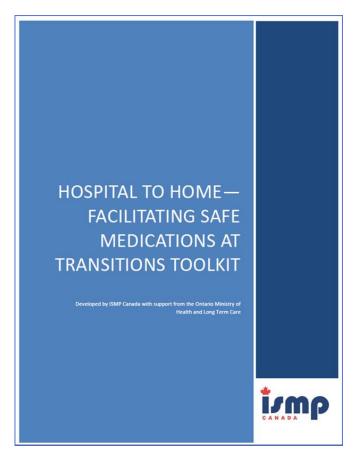
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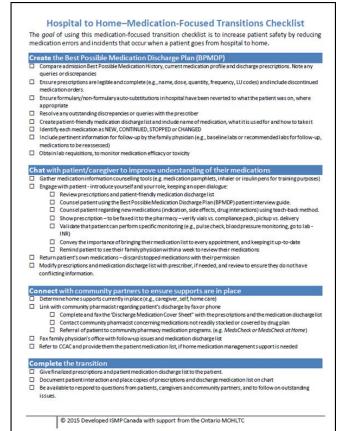
Complimentary

Questions? email info@ISMP-canada.org



Complimentary Across Canada





Available at www.ISMP-canada.org/ocil



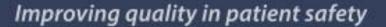
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CRITICAL Incident Learning

Thank you for attending

Additional questions? email info@ISMP-canada.org



Ontario

We all have a role in preventing harm from medication incidents.

Visit:

ISMP-canada.org

SafeMedicationUse.ca

Knowledgeisthebestmedicine.ca

