ISMP Canada Update

International Medication Safety Network

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ZERO Preventable Harm From Medications
Institute for Safe Medication Practices Canada

A Trusted Partner

Strengthening medication safety through timely learning, sharing, and acting to improve health care.

ISMP Canada is a national, independent, not-for-profit organization that purposefully partners with organizations, practitioners, consumers, and caregivers to advance medication safety in all healthcare settings.

Learn

We synthesize knowledge by collecting, aggregating, and analyzing data on medication safety from practitioners, consumers, caregivers, and others.

Share

We disseminate lessons learned with compelling, actionable, evidence-informed recommendations across the health system.

Act

We partner to implement, sustain, and evaluate medication safety improvements in practice.

Learn

We synthesize knowledge by collecting, aggregating, and analyzing data on medication safety from practitioners, consumers, caregivers, and others.

REPORTING AND LEARNING	Hospitals	Long-Term Care Homes	Practitioners	Consumers	Community Pharmacies
INTAKE	National System for Incident Reporting CIHI		Individual Practitioner Reporting ISMP Canada	Consumer Reporting ISMP Canada	National Incident Data Repository for Community Pharmacies ISMP Canada

Sharing and Analysis

ACTION

Disseminate Learning & Recommendations, Knowledge Translation & System Improvements

CIHI ICIS

ismp CANADA

Healthcare Excellence Canada

Excellence en santé Canada

CMIRPS SCDPIM

Canadian Medication Incident Reporting and Prevention System

Système canadien de déclaration et de prévention des incidents médicamenteux

RESULT

Stronger Knowledge = Safer Products and Care

National Incident Data Repository for Community Pharmacies

Province	Number of Pharmacies Reporting	Total Number of Pharmacies
NL (starting submission in 2024)	0	207
PEI	50	50
NB	174	234
NS	312	314
QC	0	1917
ON	0	4868
MB	468	468
SK	423	423
AB	0	1631
BC	0	1458

Total of 1427 Canadian pharmacies currently reporting into NIDR, and the number is growing!

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Share

We disseminate lessons learned with compelling, actionable, evidence-informed recommendations across the health system.

Activities
2022-2023

ismp CANADA

Analysis

- 360 incidents
- 5 cluster analyses

Publications

- 12 Safety Bulletins
- 3 Safety Alerts
- 11 Consumer Newsletters
- 4 Community Pharmacy Publications
- 7 Long-Term Care bulletins

Learning Products of Note

- Pediatric Medications Safety e-learning module
- Paramedicine Safety Self Assessments
- Diversion Risk Assessment Tool
- Safe Label and Package Design Workshop

Preventing Errors with Intravenous Acetylcysteine

Institute for Safe Medication Practices Canada

REPORT MEDICATION INCIDENTS
Online: www.ismpcanada.ca/report/
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When the Antidote Causes Harm: Preventing Errors with Intravenous Acetylcysteine

KEY POINTS

- **Acetylcysteine infusion overdose** refers to 1 of 3 scenarios: (1) overdose of intravenous (IV) acetylcysteine on a milligram per kilogram (mg/kg) basis, (2) use of an excessive amount of IV fluid to administer the acetylcysteine; or (3) a combination of scenarios 1 and 2. All scenarios are potentially life-threatening.
- ISMP Canada has received 3 reports of death or severe harm related to one type of error: continuation of the loading dose IV infusion rate instead of reduction to a lower rate for the maintenance dose, resulting in a 10-fold dose error. Use of a 1-bag, single-concentration regimen was described in all 3 reports.
  - Do not administer the loading dose from an IV bag

Preventing Errors with Intravenous Acetylcysteine

Acetylcysteine infusion overdose refers to 1 of 3 scenarios:

1. overdose of intravenous (IV) acetylcysteine on a milligram per kilogram (mg/kg) basis,
2. use of an excessive amount of IV fluid to administer the acetylcysteine
3. a combination of scenarios 1 and 2.

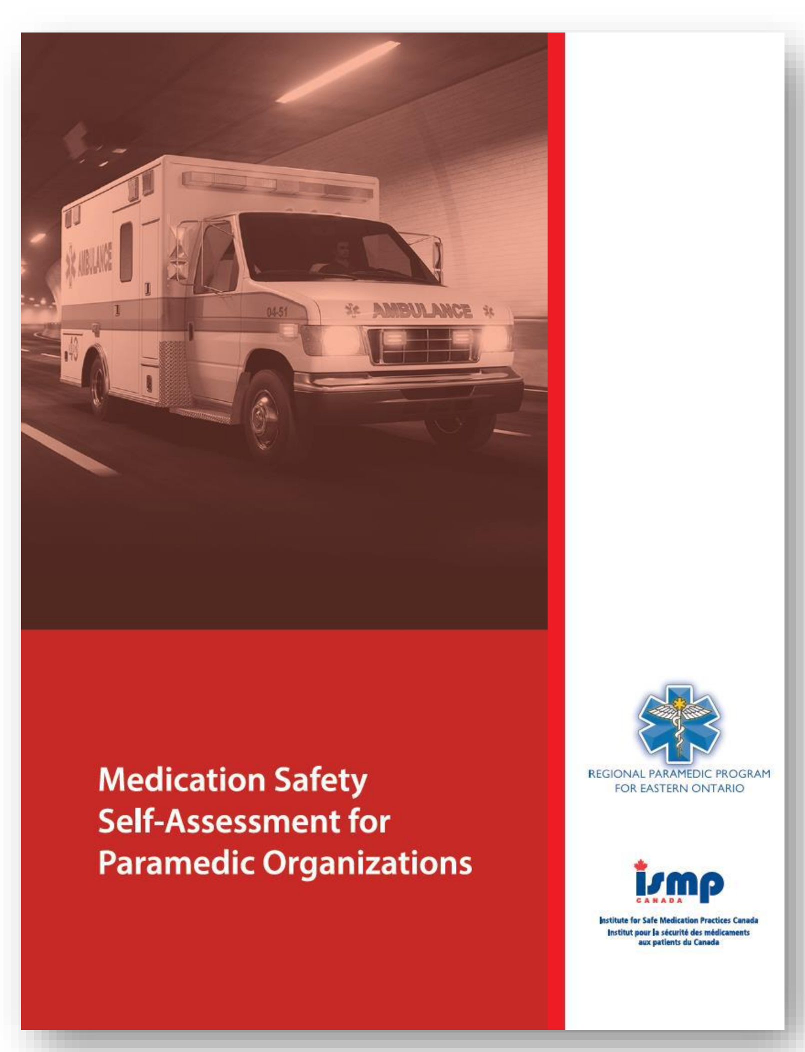
Fatal incidents (n = 4) related to acetylcysteine infusion overdose involved the following errors:

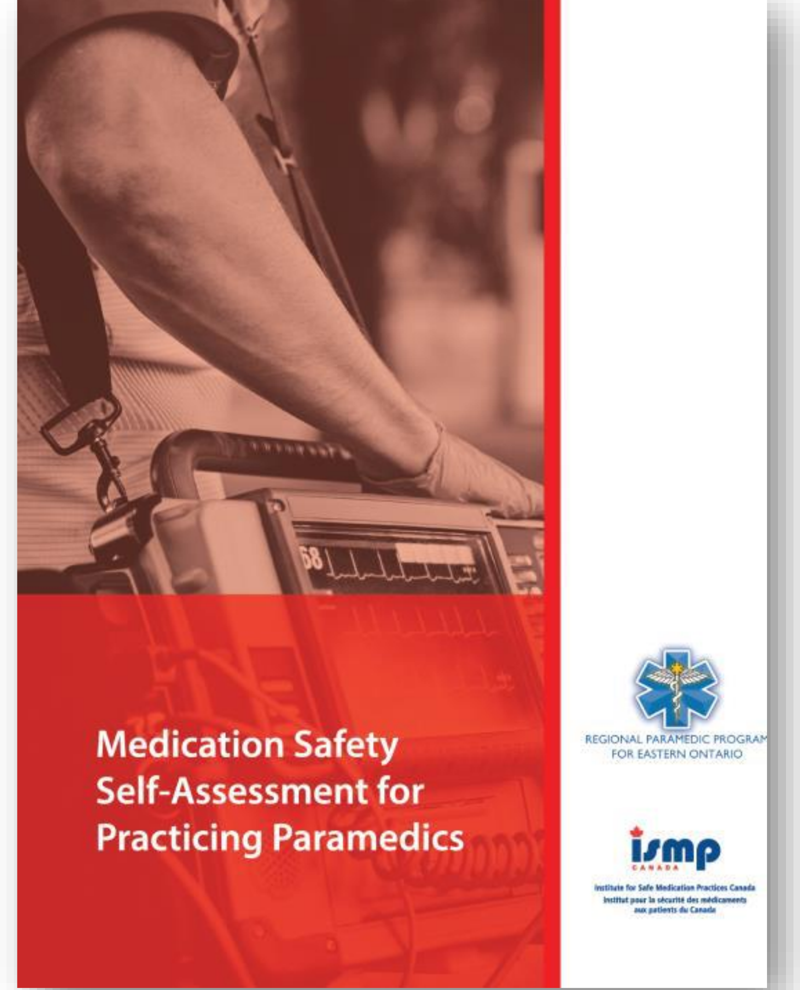
- administration of the maintenance infusion using the infusion rate of the loading dose (10-fold error), with both doses prepared in the same 1-litre infusion bag of dextrose 5% in water (D5W)
- miscommunication/confusion about the regimen the patient was to receive (e.g., confusing the 3-step “mg/kg” dose and the 2-step “mg/kg/h” dose)
- miscalculation of a concentration or rate of infusion

Act

We partner to implement, sustain, and evaluate medication safety improvements in practice.

MSSA for Paramedicine





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Pan-Canadian Diversion Risk Assessment Tool

Self Assessment Format

The hospital medication-use process has multiple vulnerabilities that have been exploited.

Hospitals have not yet broadly implemented safeguards needed to detect or understand how diversion occurs.

Hospitals require guidance to assess their drug processes against known vulnerabilities and identify safeguards.

Support for this research has come through grants from:

•BD Canada Inc.

•Canadian Institutes of Health Research (CIHR)