National System for Incident Reporting

NSIR

Canadian Institute for Health Information
Institut canadien d'information sur la santé

Collect. Analyze. Share. Learn.

Welcome to the quarterly National System for Incident Reporting (NSIR) electronic bulletin. This is where you can find information on medication and radiation treatment incident reporting and analysis for sharing and learning across Canada.

If you are having difficulty viewing this email, please see the attached PDF version.

Inside this issue

Highlights

CIHI's COVID-19 resources

CIHI is committed to collecting, analyzing and sharing credible health data to help improve our health care systems and the health of all Canadians. We've compiled our key reports and resources containing information related to the COVID-19 (coronavirus disease) pandemic and will update our COVID-19 resources web page with new content whenever possible.

Check our web page for

- CIHI's Health System Capacity Planning Tool
- Coding directions regarding COVID-19
- Data and information on topics including
  - Health care workers
  - Estimated planned surgery cancellations
  - Intensive care unit (ICU) and ventilation use

ISMP Canada's recent COVID-19–related alerts and safety bulletins

Managing Mild COVID-19 Symptoms at Home

COVID-19: Updated Requirements for Post-Consumer Returns

Intravenous Tubing Extensions to Preserve Personal Protective Equipment

Alert: Hand Sanitizers That Look Like Drinks

Delivery of Opioid Agonist Treatment During a Pandemic

Prevent Accidental Poisoning Caused by Cleaning Products and Hand Sanitizers

Recall of Certain Hand Sanitizers That May Pose Health Risks

Focus on long-term care: Drug use and medication incident reporting

Seniors, particularly those residing in long-term care (LTC) facilities, have significantly higher rates of prescription drug use than younger populations; this is in large part due to their predisposition to a higher number of chronic conditions. Seniors are at a higher risk of adverse drug events due to age-related changes in the body and the higher number of drugs they are often taking. On average, seniors living in LTC facilities are prescribed more drugs (9.9 different drug classes) than seniors living in the community (6.7 drug classes). In particular, the use of opioids and antidepressants is higher among seniors living in LTC facilities. LTC residents are prescribed opioids twice as much (39.9% compared with 20.4%) and antidepressants more than 3 times as much (60.3% compared with 19.1%) as seniors living in the community.[1]

39.0% of seniors in LTC facilities had at least one claim for an antipsychotic.[2, 3] Quetiapine was the most commonly used antipsychotic, used by 19.2% of residents, followed by risperidone, used by 14.1%. Among seniors who were chronic users of an antipsychotic, nearly two-thirds (64.3%) were also chronic users of an antidepressant, while roughly 1 in 6 (15.0%) were also chronic users of a benzodiazepine.[4]

NSIR medication incident reporting: Patient safety for long-term care

Since 2011, NSIR has been collecting anonymous, voluntarily submitted medication incidents from participating LTC facilities across Canada. More than 180 LTC facilities have shared over 8,100 incidents with NSIR for learning so far. Our thanks go out to these facilities for their contributions to NSIR.

We encourage health care providers and experts from across Canada to use NSIR data to learn about patient safety issues pertinent to LTC — and to the population at large. Our database is available and accessible to participating facilities. If there is a patient safety issue that you want to understand more about, chances are that numerous relevant related incidents have already been shared in NSIR's database.

Here are just a few examples:

Exploring incidents involving antipsychotics in LTC: 624 incidents involving antipsychotics have been submitted to NSIR by participating facilities. Of these, 67 incidents led to patient harm. Quetiapine was the most commonly reported antipsychotic drug product reported to NSIR by LTC facilities, with 272 incidents, followed by risperidone (173 incidents). The majority of incidents were due to a dosing issue (omitted dose, extra dose or wrong quantity) of quetiapine (63%) or risperidone (63%), followed by wrong patient/resident incidents (both at 10%).

Exploring the use of opioids in LTC: LTC facilities have submitted 2,449 incidents involving opioids. Of these, 189 led to patient harm.

Exploring the use of antidepressants in LTC: LTC facilities have submitted 555 incidents involving antidepressants. Of these, 49 led to patient harm.

Data from LTC facilities and acute care facilities reveals similar patterns. Patient safety issues with antipsychotics are found with quetiapine and risperidone in acute care settings, often with the same problem types. The top 3 opioids (hydromorphone, fentanyl and morphine) and the top 3 antidepressants (trazodone hydrochloride, citalopram and mirtazapine) were also common among long-term and acute care. In addition to these incidents, there are over 10,000 more incidents involving these drug classes to learn from that have been shared from various acute care facilities across Canada.

If you are interested in learning more about how you can use NSIR data to learn from the shared incidents submitted by similar health care facilities, we would love to help. Contact us at nsir@cihi.ca.

Interactive CIHI resources on seniors and LTC:

Seniors in Transition Web Tools

For more information:

Canadian Patient Safety Institute, Safety in Long-Term Care Settings: Broadening the Patient Safety Agenda to Include Long-Term Care Services

ISMP Canada, Medication Safety in Long-Term Care: Measuring Quality Improvement Over 12 Years

Sharing and learning

Focus on critical incidents

The following incident was submitted to NSIR.

Description: *The physician gave a verbal order for metoprolol. The nurse transcribed the order with the incorrect route (IV instead of oral) and had it co-signed and double-checked by another unit staff. The RN administered 12.5 mg of metoprolol IV at 20:20 and 22:30. The Critical Care Response Team (CCRT) was called for low blood pressure and bradycardia. Patient experienced agonal breathing and was unresponsive. Transitioned into PEA (pulseless electrical activity) arrest. CPR initiated by CCRT nurse. Code blue called. Patient responded and moved to ICU.*

Future strategies/recommendations:

- *Dosing information in the IV monograph be updated*
- *Staff review safe medication practices, monitoring and patient documentation for high-risk medications*

The critical incident presented above involves a "high-alert medication." High-alert medications are defined as drugs that bring a heightened risk of causing significant patient harm when they are used in error. Although mistakes may or may not be more common with these drugs, the consequences of an error can be devastating to patients.[5]

The Institute for Safe Medication Practices has published a list of high-alert medications in acute care settings.[6] Consider posting this list in the pharmacy and care areas where these medications are used and are available. Strategies to reduce errors with high-alert medications may include the following:[5]

- Standardizing the ordering, storage, preparation and administration of these medications
- Improving access to information about these drugs
- Limiting access to high-alert medications
- Using auxiliary labels and automated alerts
- Employing redundancies

ISMP Canada's other recent alerts and safety bulletins

Strategies for Safer Telephone and Other Verbal Orders in Defined Circumstances

Virtual Medication History Interviews and Discharge Education

Multi-Incident Analysis of Incidents Involving Paramedicine

Change Management in Response to Preventable Tragedies

Dose Confusion When Switching Between Insulin Delivery Devices

How Much Iron Is In Here?

Who Keeps the Box? Are Your Prescriptions Properly Labelled?

Use of the Drug Picato May Increase the Risk of Skin Cancer

NSIR — Radiation Treatment (RT)

NSIR-RT MDS changes

A scheduled update to the NSIR-RT Minimum Data Set (MDS) will be delayed due to disruptions caused by the COVID-19 pandemic. The update had been announced in the Canadian Partnership for Quality Radiotherapy (CPQR) NSIR-RT bulletin. We will communicate revised plans once the path forward is more certain.

French translation of NSIR-RT is in progress: the field review of the translation of the Data Entry and communication tools is complete, and the translation of the Analytical Tool is ongoing. We want to thank those who took the time to participate in the review and provide us with valuable feedback. We expect the French language system to be launched sometime this Summer. Stay tuned for more information!

The NSIR-RT case study Second victim: Supporting staff involved in radiation treatment incidents discusses the impact of an incident on the staff involved. Organizations can consider mitigation strategies to assist staff. Read more about this issue in the case study article.

Additional information

Upcoming conferences and learning

ISMP Canada Med Safety Exchange webinar series

Join your colleagues across Canada for ISMP Canada's complimentary bimonthly 50-minute webinars, where they share, learn about and discuss incident reports, as well as trends and emerging issues in medication safety.

To register and for more information on this series, please visit ISMP Canada — Med Safety Exchange.

Recent CIHI releases

Prescribed Drug Spending in Canada, 2019

December 17, 2019

Take an in-depth look at prescribed drug spending in Canada and learn more about how different drug classes contribute to current trends in total public drug spending.

Contact us

Thank you for taking the time to read the NSIR eBulletin. Unless otherwise stated, the reported NSIR findings are based on the voluntary reporting of incidents at participating health care facilities across Canada. If there is anything you would like to see featured in an upcoming edition, please contact us at nsir@cihi.ca.

The NSIR eBulletin is distributed on a quarterly basis. Previous editions can be found on the NSIR web page.

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References

1. Canadian Institute for Health Information. *Drug Use Among Seniors in Canada, 2016*. 2016.
2. Chau DL, Walker V, Pai L, Cho LM. Opiates and elderly: Use and side effects. *Clinical Interventions in Aging*. 2008.
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4. Canadian Institute for Health Information. *Use of Antipsychotics Among Seniors Living in Long-Term Care Facilities, 2014*. 2016.
5. Institute for Safe Medication Practices. High-alert medications in acute care settings. Accessed July 10, 2020.
6. Institute for Safe Medication Practices. *ISMP List of High-Alert Medications in Acute Care Settings*. 2018.