Ontario
CRITICAL Incident Learning
Improving quality in patient safety

Issue 3
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Distributed to:

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

Suggested action items:

- Circulate bulletin to front-line staff and physicians
- Refer bulletin to pharmacy leadership to assess established MedRec processes, identify target performance measures, and audit activities to ensure quality
- Use bulletin as an educational resource in your hospital's safety huddles or rounds

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Quality Medication Reconciliation Processes Are Critical

The process of medication reconciliation (MedRec) ensures that complete medication information is communicated accurately across transitions of care. As part of this process, a best possible medication history (BPMH) is created by systematically interviewing the patient and family and reviewing at least one other independent source of information to obtain and verify detailed information about the patient's use of prescribed and non-prescribed medications. Creating a BPMH does not mean that MedRec has been completed, but is an important component in the MedRec process.

Advice for Hospitals

Make MedRec a strategic priority

- Commit to developing and sustaining a quality-based, systematic, and comprehensive MedRec process.
- Use the new Ontario MedRec recommended core indicator[1] in your hospital's quality improvement plan[2] as a lever to drive system quality and performance improvements.
- Recognize that accurate MedRec processes are a crucial component of patient safety and that they require support from all levels of the organization, including commitment from physician leadership and engagement of patients.

Provide the necessary tools and resources to sustain high-quality practice[3]

- Train and/or certify healthcare workers on the rationale for and steps involved in MedRec, including how to create a thorough BPMH that integrates a patient or caregiver interview with information from multiple independent sources.
- Provide appropriate staffing resources to confirm medication-use history using community pharmacies, online repositories of health information (e.g., Ontario drug profile viewer), community physicians, and other sources and ensure prompt pharmacist assessment and review of the BPMH for any safety concerns.
- Reinforce the need for prescribers to critically review the BPMH for both clinical appropriateness and therapeutic safety before authorizing orders based on this document.
- Assess your hospital's ability to complete specific admission MedRec activities effectively, reliably, and in a timely manner. The *Safer Healthcare Now!* MedRec Admission Quality Assessment Audit tool, to be made available later this year, will be useful for such assessments.

Engage patients

- Encourage patients to bring all of their medicines with them when they come to the hospital.
- Embrace the involvement of patients by ensuring that their personal medication documents are accurate and up to date through all transitions of care.[4]

Case Summary

A patient with respiratory symptoms presented to the emergency department with a handwritten list of the medications used at home. Although the patient was actually taking a total dose of 1 mg (0.5 mg x 2 tablets) of clonazepam, the home medication list showed "clonazepam 5 mg x 2 tablets": there was no leading zero or decimal point before the numeral "5". The nurse in the emergency department transcribed the erroneous information onto the hospital's BPMH form, which was designed to facilitate a proactive MedRec process. The form also functioned as the medication order sheet, and the emergency physician authorized the BPMH medications as part of admission orders. Pharmacist order verification was not completed before administration of the first dose of clonazepam, and the patient received a 10-fold greater dose of this sedating medication. Further interventions were required to manage the resulting respiratory distress and confusion.

Learning from Analysis

At the hospital where this incident occurred, the BPMH form is completed by whichever healthcare professional is first in contact with the patient. One of the contributing factors in this incident was the fact that the patient interview corroborated the handwritten medication list and led the nurse to transcribe incorrect information onto the BPMH form. The error in the source document used to create the BPMH led to a significant overdose of a sedating medication. This incident highlights the need for independent sources of information. Lack of an independent confirmation method, such as checking information through the Ontario drug profile viewer, calling the community pharmacy, or reviewing the actual medications, contributed to the error.

The MedRec process and the BPMH form are introduced to staff and physicians at orientation, but there is no formal training or re-certification process. It is unknown how thoroughly the emergency physician reviewed the BPMH/order sheet before authorizing the medications, but the presence of clonazepam at an unusually high dose should have prompted further evaluation.

The facility's own review led to a recommendation that the medication profile of all patients older than 65 years be printed from the Ontario drug profile viewer at the time of presentation and that multiple sources of information be used to verify the patient's home medications when completing BPMH. Physicians have also been advised to carefully review medications on the BPMH before authorization.

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We gratefully acknowledge the review of this bulletin by the facility where the incident described took place.

[1] Appendix A: Indicator definitions and technical information. Toronto (ON): Ontario Ministry of Health and Long-Term Care; 2012 [cited 2013 Mar 18]. Available from: http://www.health.gov.on.ca/en/pro/programs/ecfa/legislation/qualityimprove/appendix_a_2013.pdf

[2] 2013/14 quality improvement plan guidance document for Ontario hospitals. Toronto (ON): Ontario Ministry of Health and Long-Term Care; 2012 [cited 2013 Mar 18].
Available from: http://www.health.gov.on.ca/en/pro/programs/ecfa/legislation/qualityimprove/QIPGuidanceDocument.pdf

[3] Medication reconciliation (MedRec). Toronto (ON): Institute for Safe Medication Practices Canada; © 2001–2013.
Available from: https://www.ismp-canada.org/medrec/

[4] Medication Reconciliation Can Help to Reduce the Chance of Errors with Medicines! SafeMedicationUse Alert 2012 Jan 11 [cited 2013 Mar 18];3(1)1. Available from: http://www.safemedicationuse.ca/newsletter/newsletter_BPMH.html

Collaborating parties of the Ontario Critical Incident Reporting program

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