

Issue 18
October 2016

Suggested Action Items:

- Encourage adoption of an electronic medication reconciliation (MedRec) process
- Circulate bulletin to physicians, pharmacists, nurses, and other front-line staff to raise awareness of the learning from this incident and opportunities for improvement

Distributed to:

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

Strengthening Medication Reconciliation (MedRec) at Discharge

Unintentional medication errors at discharge can compromise and effectively “undo” otherwise excellent care. In one recent study, 43% of patients experienced medication errors at discharge, which put most at risk of moderate harm.¹ Harmful medication errors can lead to hospital readmissions, which is an important consideration for hospitals in Ontario given the 30-day readmission rate of 15.1%.² Medication reconciliation (MedRec) is a process that helps healthcare providers to identify and resolve unintentional changes to medications at transitions in care, thereby minimizing the risk of patient harm and need for readmission. MedRec, when properly performed as part of a comprehensive, patient-centred discharge process, has been shown to have a positive impact on patient outcomes.^{3,4} In addition, an intervention that included MedRec reduced the risk of a medication discrepancy at discharge by almost half.⁵ This bulletin shares a preventable case of harm that highlights the need for hospitals to strengthen their MedRec process at discharge.

Call to Action for Hospitals

- Involve pharmacists in the MedRec process at discharge. The involvement of hospital pharmacists in assessing, clarifying, and communicating medication changes at discharge, and educating patients about these changes, can reduce readmissions.⁶ These activities especially benefit vulnerable populations (e.g., elderly patients) and those using high-alert medications (e.g., anticoagulants).
- Include the rationale for medication changes. The rationale will convey key information to community providers, and will also allow hospital staff to recognize potential errors in the MedRec process at discharge.
- Generate discharge prescriptions electronically. Appropriate use of automation can help to prevent transcription errors.
- Implement electronic support for resolution of medication discrepancies at hospital admission, which will improve the quality of the MedRec process at discharge.⁷
- Provide a patient-friendly discharge medication list. The list should include the indication for each medication, and details about which medications were started, continued, stopped, and changed in the hospital. Consider sending copies to community providers, for continuity of care.
- Help patients to become active partners in their own healthcare. Consider providing patients with the “[5 Questions to Ask about Your Medications](#)” to support the discussion.⁸
- Create cross-sectoral partnerships with community healthcare providers (e.g., family physician, community pharmacist). Such partnerships support the MedRec process at discharge and enhance continuity of patient care.⁹

Case Summary

An elderly patient who was admitted to an acute care hospital had been taking phenytoin 100 mg 3 times daily before admission. The same dosage was continued during her hospital stay. At discharge, the physician handwrote the patient’s prescriptions, according to the



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current electronic medication administration record. However, the frequency was written as “QID” (4 times a day) rather than “TID” (3 times a day). One month later, the patient fell and was readmitted for treatment of the resulting hip fracture. The admitting physician noted the unusual dosage regimen, and investigations showed that the phenytoin level was in the toxic range. It was concluded that toxic effects of phenytoin had contributed to the patient’s fall.

Learning from Analysis

This case highlights the importance of strengthening the MedRec process at discharge. The hospital involved has identified the systematic generation of electronic discharge prescriptions as a high-leverage intervention to be implemented. In the reported case, an electronic discharge prescription would have prevented the transcription error and subsequent dosing error. The following steps are recommended to safely transition patients and their medication information from hospital to the community:

1. Create a Best Possible Medication Discharge Plan (BPMDP)^{10,11}

Create the BPMDP by comparing the Best Possible Medication History (BPMH), the current medication profile, and all discharge prescriptions, and then identifying any discrepancies. Resolve the discrepancies, and document each medication as new, continued, stopped, or changed.

2. Engage the patient^{10,11}

Engage the patient and caregivers in a discussion to improve their understanding of the patient’s medications. Use the “5 Questions to Ask about Your Medications” to facilitate this discussion.⁸ Provide patients with an up-to-date medication list to share with all healthcare providers.

3. Connect with community partners^{10,11}

Proactively communicate changes and monitoring requirements to community providers. In many cases, community providers will not know that a particular patient has been in the hospital, nor will they receive communications about medication changes made during the hospital stay. Hospital staff can identify patients who might benefit from a [MedsCheck Follow-Up](#) by their community pharmacist.

Detailed information about MedRec at discharge can be found within the [Hospital to Home – Facilitating Medication Safety at Transitions Toolkit](#)¹⁰ and the [Medication Reconciliation in Acute Care Getting Started Kit](#).¹¹

Conclusion

Quality MedRec at discharge is a fundamental component of the safe transition of patients back into the community or to another facility. The process involves identifying and resolving discrepancies by comparing the BPMH, the inpatient medication administration record, and discharge prescriptions; documenting the rationale for all medication changes; and communicating these changes to the patient and to community partners. These steps will facilitate coordinated care, allow for safer transitions, and prevent patient harm.

References for this bulletin are available from:

www.ismp-canada.org/download/ocil/ISMPCONCIL2016-18_MedRecAtDischarge_References.pdf

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