Lessons Learned from a Multi-incident Analysis on Medication Incidents Associated with Patient Harm in Saskatchewan

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Objectives
- Community Pharmacy Professionals Advancing Safety in Saskatchewan (COPPS) is a standardized continuing quality improvement (CQI) program specific to Saskatchewan pharmacies.
- The objective of the multi-incident analysis was to gain a deeper understanding of the contributing factors to incidents associated with patient harm in Saskatchewan and to offer possible solutions.

Methodology
- A total of 207 medication incidents associated with patient harm were extracted from the Saskatchewan Incident Reporting System (CPhIR) program specific to Saskatchewan pharmacies. Data was collected from December 1, 2017 to January 31, 2019.
- We conducted a qualitative, thematic analysis of these incidents, and provided recommendations to address patient safety gaps identified.

Results
- We identified four main themes from the multi-incident analysis (Table 1).
- We offer a summary of recommendations to pharmacists (Table 2). (Text continues)

Conclusion
- The thematic elements identified through this multi-incident analysis are applicable to all medication-use practices.
- The importance of reporting, analyzing, and learning from past incidents should not be overlooked for continued improvement in pharmacy practice.

Table 1. Summary of Recommendations

<table>
<thead>
<tr>
<th>Theme</th>
<th>INCIDENT EXAMPLE(S)</th>
<th>SUB-THEMES</th>
<th>CONTRIBUTING FACTORS</th>
<th>RECOMMENDATIONS</th>
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| **Communication Gaps** | Patient Communication | Miscommunication during patient encounters or patient counselling | Patient was taking Gabapentin 100 mg 2 capsules twice daily. A new prescription was filled with 300 mg capsules instead. The pharmacist documented the change and left a note for the cashier to inform the patient. The patient did not recall being informed. The patient took 100 mg capsules twice daily and noticed adverse effects. The error was discovered when an early refill was requested. | Patient Communication | Inadequate confirmation of patient understanding | • Double-check patient understanding after counseling
• Standardized patient encounters (e.g., always include medication name and indication verification) |
| Pharmacy Staff Communication | Miscommunication between pharmacy team members, including technicians and students | Patient received a prescription for Bupropion SR 150 mg once daily. The pharmacist noticed that a different brand of the narcotic was entered and billed to the third-party insurance. As a result, the pharmacist was credited for the incorrect product and an incorrect amount was billed to the patient. | Pharmacy Staff Communication | Lack of documentation after patient encounter | • Adopt a standard for written and verbal communication among pharmacy staff
• Flag or use alerts for patients with clinically significant medication interactions |
| **Non-Traditional Dispensing Procedures** | Legal/health (LTC) and Compliance Package | Incidents that involved non-traditional dispensing procedures where patient’s allergies or medication-use process | Patient was taking Bupropion XL 150 mg 2 capsules once daily. With a backorder, the pharmacy received a new prescription for Bupropion 110 mg 2 capsules twice daily. When entering the prescription, the Bupropion XL prescription was copied over; the medication was changed correctly but the prescription directions were not. As a result, the patient felt unwell for several weeks and had to see the physician. | Non-Traditional Dispensing Procedures | Compliance package (LTC medication) “stiff” changes | • Incorporate tall-man lettering in pharmacy dispensing software to help differentiate tall-automatic tall-drug names
• Incorporate independent double checks throughout the medication-use process |
| **Order Entry Errors** | Technical Errors | Order entry errors resulting from choosing the wrong product or incorrectly transmitting the prescription directions or instructions | Technical Errors | Lack of knowledge of drug formulations, therapeutics, and patient risks | • Implement evidence-based, point-of-care clinical decision support systems and easily accessible drug information resources
• Inadequate knowledge of drug formulations, therapeutics, and patient risks |
| **Product Mix-Up** | Technical Errors | A prescription was brought in by a patient for 3 different medications. One of them was a narcotic. As the pharmacy was busy, the pharmacist counted the medications, while the student was entering the prescription into the dispensing software. The pharmacist noticed that a different brand of the narcotic was entered and billed to the third-party insurer and hence a return-to-stock process is needed. However, none of the 3 medications was incorrectly returned to the narcotic stock bottle. As a result, the patient received 3 different brands of the narcotic medication and did not receive one of his other medications. The error was discovered when the pharmacist was filling the same narcotic for a different patient. | Product Mix-Up | Inadequate knowledge of drug formulations, therapeutics, and patient risks | • Incorporate tall-man lettering in pharmacy dispensing software to help differentiate tall-automatic tall-drug names
• Implement policy to minimize copying from old prescriptions
• Inadequate knowledge of drug formulations, therapeutics, and patient risks |