Safety IQ: Lessons Learned from a Continuous Quality Improvement Program in Manitoba

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Objectives

- Twenty pharmacies in Manitoba participated in a standardized continuous quality improvement (CQI) program – Safety IQ – and retrospectively reported medication incidents to a national database anonymously.
- The objectives of this project were to apply a qualitative, multi-incident analysis approach to medication incidents that reached patients in Manitoba, to gain a better understanding of the contributing factors of these incidents, and to develop potential recommendations to prevent error recurrences.

Methodology

- A total of 70 medication incidents involving patients were extracted from the Institute for Safe Medication Practices Canada (ISMP Canada) Community Pharmacy Incident Reporting (CPhIR) Program from July 2018 to June 2019.
- We conducted a qualitative, thematic analysis on these incidents, and provided recommendations to address patient safety gaps identified.

Results

- We identified four main themes from this multi-incident analysis (Tables 1-4).
- We offered a summary of recommendations to pharmacy professionals (Table 5).

Conclusion

- Findings from this analysis and potential recommendations presented would help promote safe medication practices.
- Reporting, analyzing, and learning from anonymously reported medication incidents are critical for the success and ongoing engagement of pharmacy professionals in a provincial CQI initiative.

Theme 1: Misidentification

Table 1.

SUB-THEMES

Patient Misidentification

Incident Example:
Patient came into the pharmacy and asked for medication pickup for the patient and partner. Multiple family members had medications ready for pick-up. Patient was given medications for a different family member than requested since the same last name were next to each other in the bin.

Product Misidentification

Incident Example:
Patient received delivery of levothyroxine 75 mcg instead of the actual strength of 175 mcg.

Theme 1: External Discovery

Table 2.

SUB-THEMES

Patient / Family / Caregiver Discovery

Incident Example:
Patient contacted pharmacy after experiencing sleep disturbances and noticed one medication looked and smelled different. The pharmacist discovered that trazodone was changed to spironolactone during refilling.

Discovery by Another Healthcare Professional

Incident Example:
Pharmacist at a pharmacy dispensed to a nursing station the prescribed suboxone 20 mg as 2 tablets of 8mg/2mg since he thought 8 mg/2 mg = 10 mg. When another pharmacist dispensed the prescribed Suboxone 20 mg correctly as 2 tablets of 8 mg/2 mg with 2 tablets of 2 mg/0.5 mg, the nurse called the pharmacy, as two extra tablets were present.

Theme 1: Miscommunication

Table 3.

SUB-THEMES

Between External Healthcare Professionals and Pharmacy Staff

Incident Example:
Patient's hospital discharge summary (on one section) stated that citalopram should be discontinued (but on another section, it was stated that citalopram should be continued). Sertraline was newly prescribed but not citalopram. The discharge summary was interpreted as dispensing both sertraline and citalopram. Therapeutic duplication warning was seen during order entry, but not during verification by the pharmacist.

Between Patient and Pharmacy Staff

Incident Example:
Patient was dispensed fludrocortisone in a medication vial instead of in the blister pack with the patient's other medications, because fludrocortisone required refrigeration. When the patient requested refills of his medications, he forgot to order fludrocortisone and went unnoticed for 3 months until the doctor added sodium chloride tablets (assuming that patient was using 0.3 mg fludrocortisone per day) and when the medications were reviewed by the renal pharmacist.

Theme 1: Technology Challenges

Table 4.

INCIDENT EXAMPLE

Penicillin allergy note in the computer system was missed during order verification and the mother received amoxicillin/clavulanic acid 875/125 mg to give to her son. Her son developed a rash after taking the new antibiotic.

Table 5. Summary of Recommendations

SUB-THEMES / CONTRIBUTING FACTORS	SUB-THEMES / CONTRIBUTING FACTORS	SUB-THEMES / CONTRIBUTING FACTORS	CONTRIBUTING FACTORS

Patient Misidentification

- Look-alike/sound-alike patient names

Recommendations:
- Confirm with at least 2 patient identifiers
- Apply "name alert" label to ready for pick-up prescription bag if similar patient names found in pick-up bin

Product Misidentification

- Look-alike/sound-alike product names

Recommendations:
- Implement bar coding technology
- Conduct independent double check of the medication(s) with the patient at the time of pick-up

Patient / Family / Caregiver Discovery

- Patient questioned about unfamiliar medications (Note: This is a positive contributing factor that allowed the incident to be discovered)

Recommendations:
- Educate patients/families/caregivers on the *5 Questions to Ask About Your Medications* handout where they can learn about common questions that they should ask their healthcare providers regarding their medications at each encounter.

Discovery by Another Healthcare Professional

- Communication with other healthcare providers only occurs as required

Recommendations:
- Conduct periodic medication reviews with the patient and share the updated medication reviews with other healthcare providers in the circle of care

Between External Healthcare Professionals and Pharmacy Staff

- Absent or unclear written/verbal instructions
- Misinterpretation of instructions

Recommendations:
- Indicate reason for changes in therapy on prescription
- Implement standardized documentation templates that can ease communication between prescribers and pharmacists

Between Patient and Pharmacy Staff

- Lack of a comprehensive list or medication review of patient's current medication therapy

Recommendations:
- Create clinically important alerts in the electronic patient profile
- Conduct periodic medication reviews with the patient and share the updated medication reviews and list of current medication therapy with the patient

Technology Challenges (Contributing Factors)

- Bypassing existing safety features in the computer system
- Alert fatigue

Recommendations:
- Require users to enter a reason when bypassing clinically significant alerts
- Update the sensitivity of the alert system according to evidence and clinical significance on a regular basis