

SMART Medication Safety Agenda

Insulin [68:20:16 Anti-Diabetic Agents Insulins (Pre-mixed)]

SMART Medication Safety Agenda

The Community Pharmacy Incident Reporting (CPhIR) program is designed for you to report and analyze medication incidents that occurred in your pharmacy. You can learn about medication incidents that have occurred in other pharmacies through the use of the SMART Medication Safety Agenda.

The **SMART** (Specific, Measurable, Attainable, Relevant and Time-based) Medication Safety Agenda consists of actual medication incidents that were anonymously reported to the CPhIR program. Potential contributing factors and recommendations are provided to you and your staff to initiate discussion and encourage collaboration in continuous quality improvement. By putting together an assessment or action plan, and monitoring its progress, the SMART Medication Safety Agenda may help reduce the risk of similar medication incidents from occurring at your pharmacy.

How to Use the SMART Medication Safety Agenda

1. Convene a meeting for your pharmacy team to discuss each medication incident presented (p. 2).
2. Review each medication incident to see if similar incidents have occurred or have the potential to occur at your pharmacy.
3. Discuss the potential contributing factors and recommendations provided.
4. Document your team's assessment or action plan to address similar medication incidents that may occur or may have occurred at your pharmacy (Table 2).
5. Evaluate the effectiveness and feasibility (Table 1) of your team's suggested solutions or action plan.
6. Monitor the progress of your team's assessment or action plan.
7. Enter the date of completion of your team's assessment or action plan (Table 2).

Table 1. Effectiveness and Feasibility

Effectiveness:

Suggested solution(s) or action plan should be system-based, i.e. shifting a focus from "what we need to do ..." to "what we can do to our environment to work around us."

1. **High Leverage – most effective**
 - Forcing function and constraints
 - Automation and computerization
2. **Medium Leverage – intermediate effectiveness**
 - Simplification and standardization
 - Reminders, checklists, and double checks
3. **Low leverage – least effective**
 - Rules and policies
 - Education and information

Feasibility:

Suggested solution(s) or action plan should be feasible or achievable within your pharmacy, both from the perspectives of human resources and physical environment.

1. Feasible immediately
2. Feasible in 6 to 12 months
3. Feasible only if other resources and support are available

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Incident Example: Product Selection

The patient noticed his insulin box was different than what he had before. He expected to receive Novolin® ge NPH, but had been given Novolin® ge 30/70 in error.

POTENTIAL CONTRIBUTING FACTORS: Patients often use multiple insulin products concurrently, and many have look-alike/sound-alike drug names. Confirmation bias can increase the risk of dispensing the wrong insulin product, which may result in harmful adverse effects.

RECOMMENDATIONS: At prescription pick up, actively involve the patient in the medication-use process by including a physical review of the medication (e.g. packages, labels) as an additional safeguard to prevent the wrong medication from being dispensed.¹

Incident Example: Therapeutic Regimen Change

The prescriber's Instructions were to stop Lantus® and glyburide, and to start NovoMix® 30. The drugs were appropriately inactivated on the patient's profile, but the change in directions was not communicated to the blister pack department.

POTENTIAL CONTRIBUTING FACTORS:

- Using the "copy" function during order entry to alter a previous prescription can lead to a dispensing error if the appropriate changes are not made.
- Patients using insulin products are often on complex regimens that frequently change over time to meet the patient's clinical targets.

RECOMMENDATIONS:

- During order entry, restrict the process of copying from previous prescriptions, and develop a system to concurrently update blister packs and automatic refills.²
- Perform comprehensive diabetes-focused medication reviews to update and verify a patient's regimen on their profile, particularly if the patient is using insulin.²

Incident Example: Prescription Calculations

The system stated that a prescription refill was too early. Further investigation revealed that the wrong days' supply was input during order entry for the original prescription.

POTENTIAL CONTRIBUTING FACTORS: Insulin dosing instructions are often complex, and therefore the calculation of a days' supply (considering units/day, mL/day, and total volume in each vial/pen) is also complex.

RECOMMENDATIONS: Document all calculations made during the order entry and dispensing stages on the hard copy, and request an independent double check to enhance accuracy.³

Incident Example: Storage Requirements

The pharmacist filled an insulin prescription and saw the patient walk in; assuming the patient was there to pick up the prescription, it was put in the drawer (not the fridge). But the patient then left the pharmacy and the insulin remained in the drawer.

POTENTIAL CONTRIBUTING FACTORS: The insulin product was put in the drawer instead of the fridge because confirmation bias led the pharmacist to believe the patient was ready to pick it up right away.

RECOMMENDATIONS: Develop and/or reinforce existing policies and procedures with respect to dispensing refrigerated products (i.e., refrigerated products must always be returned to the fridge immediately after filling, and only removed just prior to patient release).⁴

Table 2.

Assessment / Action Plan

Effectiveness:

- Forcing function and constraints
- Automation and computerization
- Simplification and standardization
- Reminders, checklists and Double checks
- Rules and policies
- Education and information

Feasibility:

- Feasible immediately
- Feasible in 6 to 12 months
- Feasible only if other resources and support are available

Progress Notes

Date of Completion:

¹ ISMP Canada. Patient report of insulin mix-up shared. *ISMP Canada Safety Bulletin*. 2007; 7(6): 1-2.

² ISMP Canada. Medication reconciliation and medication review: complementary processes for medication safety in long-term care. *ISMP Canada Safety Bulletin*. 2007; 7(9): 1-3.

³ ISMP Canada. Hydromorphone intended for an adult patient inadvertently administered to an infant. *ISMP Canada Safety Bulletin*. 2008; 8(6): 1-3.

⁴ ISMP Canada. Opioid-related incident in a long-term care home. *ISMP Canada Safety Bulletin*. 2012; 12(12): 1-4.