SMART Medication Safety Agenda

Drug Allergy

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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** (**S**pecific, **M**easurable, **A**ttainable, **R**elevant and **T**ime-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

Drug Allergy

Free-Form Entries

A patient with a skin rash was prescribed a topical compound in Glaxal Base®. The patient had a documented allergic reaction to Glaxal Base®, but neither the doctor nor pharmacist saw this in the patient's record. The allergy was entered as free-form text, so the software could not flag it in the compound prior to dispensing. Once discovered, the patient was advised to stop using the medication.

POTENTIAL CONTRIBUTING FACTOR:
The potentially limited list of drugs and/or medicinal ingredients available in pharmacy software's drop-down menu for the allergy field requires pharmacy staff to enter a patient's allergy information as free-form text. This free-form entry may be missed by software alerts and the pharmacist's clinical assessment.

RECOMMENDATIONS:

- Partner with the software provider to optimize the drop-down list in the allergy field to minimize the need for free-form entries.
- When free-form entries are unavoidable, request that the system have built-in functionality to recognize and link the free-form text for allergy alerts.[1]

Alert Bypass

A patient presented with a prescription for Macrobid® (nitrofurantoin). An allergy to Macrobid® was documented in the patient's profile. During order entry, the pharmacy student overrode the allergy warning. During the therapeutic check, the pharmacist did not notice the documented allergy. The patient called the following day and described stomach upset after using the medication. The pharmacist contacted the prescriber for an alternative antibiotic which was provided to the patient.

POTENTIAL CONTRIBUTING FACTOR:
The numerous automatic alerts from pharmacy software and point-of-care clinical decision support systems increase the risk of "alert fatigue" during the order entry and dispensing process. Alert fatigue may increase the likelihood of overriding clinically relevant alerts.

RECOMMENDATIONS:

- Regularly review and update the settings for allergy-checking software to optimize clinically relevant alerts and minimize alert fatigue.[2]
- Ensure that all allergy alerts are reviewed by a pharmacist. This can be done at the order entry stage if time permits, but if not, a printout must be included with the medication for the pharmacist's therapeutic check.

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. Allergy Never Events. *ISMP Canada Safety Bulletin*. 2016; 16(10): 1-4.
2. ISMP Canada. Aggregate Analysis of Medication Incidents Involving Drug Interactions. *ISMP Canada Safety Bulletin*. 2012; 12(5):1-4.