

SMART Medication Safety Agenda

Pediatric Medication Safety

Table 1.

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).

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

Pediatric Medication Safety

Table 2.

Weight-based dosing

INCIDENT EXAMPLE:

Epipen® Junior was prescribed for an older child. The pharmacy team confirmed that the patient's weight was over 30 kg (the upper limit for the Junior formulation) and contacted the prescriber to change it to the adult formulation.

POTENTIAL CONTRIBUTING FACTOR:

- Lack of process to regularly update patient weight in the system, especially for growing children¹

RECOMMENDATIONS:

- Configure pharmacy dispensing software to prompt users to regularly ask for and document a pediatric patient's weight.
- Ensure easy access to pediatric dosing references. This may include a list of weight-based dosing for medications commonly prescribed for pediatric patients.

Reconstitution

INCIDENT EXAMPLE:

A pharmacy staff member incorrectly reconstituted Suprax® (cefixime) with sterile water by using two portions of 33 mL each, instead of 33 mL divided into two portions.

POTENTIAL CONTRIBUTING FACTORS:

- Unfamiliarity with the unique reconstitution procedure for specific medication
- Lack of independent double checks during preparation process, prior to mixing²

RECOMMENDATIONS:

- Post the reconstitution procedure for commonly prescribed pediatric medications as an accessible reminder for pharmacy staff.
- Implement an independent technical check step in the preparation process, prior to mixing the medication.²

Allergies

INCIDENT EXAMPLE:

Pharmacy staff missed a documented banana allergy on a pediatric patient's profile and dispensed a banana-flavored amoxicillin oral suspension. The error was caught before administration.

POTENTIAL CONTRIBUTING FACTORS:

- Lack of food-drug interaction checker in the pharmacy dispensing software
- Lack of visibility/ availability of allergy information on the prescription hardcopy

RECOMMENDATIONS:

- Regularly update food-drug interaction systems in pharmacy software.³
- Configure pharmacy software to prominently display allergy information on prescription hardcopies to allow for an additional check following order entry.

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:

References

1. ISMP Canada. Weight-based medication dose errors. ISMP Canada Safety Bulletin. 2016;16(9):1-4.
2. ISMP Canada. Death due to pharmacy compounding error reinforces need for safety focus. ISMP Canada Safety Bulletin. 2017;17(5):1-6.
3. ISMP Canada. Allergy never events. ISMP Canada Safety Bulletin. 2016;16(10):1-6.