

# SMART Medication Safety Agenda

## Vaccines

### 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

## Vaccines

### Wrong Vaccine

A prescription for Havrix® Junior was received and entered correctly, but Twinrix® Junior was inadvertently selected and labelled. The error was discovered by the pharmacist during the checking process.\*

#### POTENTIAL CONTRIBUTING FACTORS:

- Look-alike / sound-alike vaccine product names, labelling and packaging.<sup>1,3</sup>
- Storage of similar-looking vaccine products close together in the refrigerator.<sup>1,3</sup>

#### RECOMMENDATIONS:

- Implement barcode scanning in the medication-use process to minimize the risk of product mix-ups during dispensing.<sup>3</sup>
- Store vaccines with similar product names, labelling, or packaging separately within the refrigerator.<sup>1,3</sup>

### Wrong Route

A pharmacist had administered Zostavax® intramuscularly for a patient. During another patient's appointment, the pharmacist realized that the vaccine should have been administered subcutaneously.

#### POTENTIAL CONTRIBUTING FACTORS:

- Unfamiliarity with the vaccine, particularly its administration protocol.<sup>1</sup>
- Lack of a process to check product administration protocol prior to vaccine administration.

#### RECOMMENDATIONS:

- For frequently administered vaccines, establish pre-printed protocols which include directions for use, route of administration, and any special procedures.<sup>1,3</sup>
- Post a quick reference guide for pharmacists to verify the route of administration for all vaccines.<sup>1,2,3</sup>

### Wrong Dose

A prescription for Twinrix® included the patient's age, 18 years old. The pharmacy dispensed Twinrix®, which is the adult strength. The error was discovered by the physician before administering the vaccine.\*\*

#### POTENTIAL CONTRIBUTING FACTORS:

- Unfamiliarity with the vaccine, particularly its dose and age specifications.<sup>1,3</sup>
- Lack of an independent double check process to verify the product against the original prescription and patient profile.<sup>1</sup>

#### RECOMMENDATIONS:

- Prior to dispensing a vaccine, verify the patient's age and the indicated age range for the product.<sup>1,3</sup>
- Configure the pharmacy software to alert the user when the patient's age is outside the indicated age range for the product. This alert should only be bypassed by the pharmacist with a free-text entry of the clinical rationale.<sup>3</sup>

\*Note: Havrix® is a Hepatitis A vaccine; Twinrix® is a Hepatitis A and B vaccine.

\*\*Note: Patients aged 1-18 year(s) require Twinrix® Junior.

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:

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1. Hibbs BF, Moro PL, Lewis P, Miller ER, Shimabukuro TT. Vaccination errors reported to the Vaccine Adverse Event Reporting System, (VAERS) United States, 2000-2013. Vaccine. 2015;33(28):3171-8.
2. Immunization Action Coalition. Administering Vaccines: Dose, Route, Site, and Needle Size. Available from: <http://www.immunize.org/catg.d/p3085.pdf>
3. ISMP Canada. Vaccine medication incidents in the community. TransPhIR from CPhIR Newsletter. Spring 2016;1-11.