# SMART Medication Safety Agenda

## Potentially Inappropriate Medication Use in Older Adults

### 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** (**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

# Potentially Inappropriate Medication Use in Older Adults

## Incident Example: Patient Factors

The pharmacist checking the prescription knew that the patient's creatinine clearance (CrCl) was very low and that the medication was contraindicated with CrCl less than 30 mL/min.

**POTENTIAL CONTRIBUTING FACTOR:**

- Medication pharmacokinetics can be quite complex and often lead to dosage adjustments for special populations (i.e., geriatrics). The need for constant pharmacokinetic assessments for each medication that an older adult is prescribed may lead to cognitive overload.

**RECOMMENDATIONS:**

- Perform a comprehensive medication review with the patient/caregiver to allow for accurate assessment of each medication for its therapeutic appropriateness.[1]
- Program the computer system to alert the user about medications that require specific geriatric, renal, or hepatic dosage considerations. For example, the system could alert the user when a dose is higher than what is recommended for older adults.

## Incident Example: Drug Interactions

A significant drug interaction between Septra® (sulfamethoxazole/trimethoprim) and warfarin was not recognized until counselling, when the patient asked if the antibiotic interacted with his warfarin. The antibiotic prescription had been input into the computer system without a flashing alert, and the "interaction" note at the bottom of the hardcopy had gone unnoticed.

**POTENTIAL CONTRIBUTING FACTOR:**

- The computer system did not visually alert the user to the significant drug interaction at the point of order entry (although a written alert was provided on the hardcopy).

**RECOMMENDATION:**

- Regularly review and update the sensitivity / severity levels set for drug interaction alerts in the pharmacy's clinical decision support system. Aim to achieve a balance between receiving clinically relevant alerts (to support safe medication practices) and minimizing trivial alerts (which may contribute to alert fatigue).[2]

[1] Yoo L, Ho C. Enhancing Medscheck, improving outcomes. Pharmacy Connection. [Internet]. 2010 Mar. [cited 2015 Mar 31]. Available from: https://www.ismp-canada.org/download/PharmacyConnection/PC_MarApr2010p7.pdf

[2] ISMP Canada. Preventable Death Highlights the Need for Improved Management of Known Drug Interactions. ISMP Canada Safety Bulletin. 2014 May 14;14(5):1-7. Available from: http://ismp-canada.org/download/safetyBulletins/2014/ISMPCSB2014-5_KnownDrugInteractions.pdf

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: