Direct Oral Anticoagulants [20:12:04 Anticoagulants]

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

Institute for Safe Medication Practices Canada
Institut pour la sécurité des médicaments aux patients du Canada

CMIRPS SCDPIM
Canadian Medication Incident Reporting and Prevention System
Système canadien de déclaration et de prévention des incidents médicamenteux

COMPASS
Community Pharmacy Professionals Advancing **Safety** in Saskatchewan

Si
Safety. Improvement. Quality.

Direct Oral Anticoagulants [20:12:04 Anticoagulants]

Drug-Drug Interactions

A physician called the pharmacy about a patient on Xarelto® (rivaroxaban). The patient was experiencing rectal bleeding since starting verapamil, and the physician asked if there was a drug interaction.

POTENTIAL CONTRIBUTING FACTORS: It is unknown whether the pharmacy system was updated to detect this potential drug interaction, or if the interaction warning was missed due to "alert fatigue".[1]

RECOMMENDATIONS:
- Ensure that pharmacy information systems are updated regularly according to the recommended schedule (usually quarterly).[1]
- Review severity levels for drug interaction alerts in pharmacy information systems to balance information needs and to manage "alert fatigue".[1]

Transitions of Care

A patient was newly admitted to a nursing home, but the medications were not added to the dispensing system. Consequently, the patient missed multiple medication doses, including a direct oral anticoagulant.

POTENTIAL CONTRIBUTING FACTORS: Lack of systematic process for patient admission that includes development of a comprehensive list of current medications and timely input of medications orders to the pharmacy for dispensing.

RECOMMENDATIONS: Community pharmacies that provide services to long-term care facilities should conduct medication reviews with new patients to ensure the availability of a comprehensive medication list. This could minimize the delay in subsequent prescription ordering and dispensing.[2]

Complex Dosing

A prescription for a direct oral anticoagulant was written as 1 tablet twice daily for 3 weeks. The pharmacist input the prescription with additional instructions – take 1 tablet twice daily for 3 weeks, then 20 mg once daily thereafter.

POTENTIAL CONTRIBUTING FACTORS: Complexity of direct oral anticoagulant dosing, with different doses and dosing frequencies per medication and per indication (e.g., venous thromboembolism treatment, stroke prevention, etc.).

RECOMMENDATIONS: Ensure that guidelines and resources regarding the therapeutic use of direct oral anticoagulants (i.e., indications and dosing regimens) and are readily available to the pharmacy team.

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. Preventable death highlights the need for improved management of known drug interactions. *ISMP Canada Safety Bulletin*. 2014; 14(2): 1-7.
2. ISMP Canada. Delayed Treatment after Transitions of Care: A Multi-Incident Analysis. *ISMP Canada Safety Bulletin*. 2016; 16(7): 1-5.