SMART Medication Safety Agenda

Metformin

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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

Institute for Safe Medication Practices Canada
Institut pour la sécurité des médicaments aux patients du Canada
CMIRPS Canadian Medication Incident Reporting and Prevention System
SCDPIM Système canadien de déclaration et de prévention des incidents médicamenteux
COMPASS Community Pharmacy Professionals Advancing Safety in Saskatchewan
Safety. Improvement. Quality.

Metformin

Dose Adjustments

A patient's dose of metformin was decreased to 1 tablet twice a day, but the medication was filled based on the previous dose of 2 tablets twice a day.

POTENTIAL CONTRIBUTING FACTORS:

- Need for regular dose adjustments and regimen changes to maintain target blood glucose levels
- Copy-over of a previous prescription file without a systematic review of all information fields

RECOMMENDATIONS:

- Implement a policy that disallows copying a prescription file to fill a new prescription if there has been a change in therapy.
- Configure pharmacy software to ask the user if there has been a change in therapy whenever a prescription file is copied. The system will then not allow the file to be copied unless "no" is selected.

Similar Product Names

A prescription for Januvia® (sitapgliptin) was entered and dispensed as Janumet® (sitagliptin and metformin). The error was caught by the pharmacist before the incorrect medication was dispensed.

POTENTIAL CONTRIBUTING FACTOR:

- Confirmation bias due to similarity of brand names and indications of Januvia® and Janumet®

RECOMMENDATIONS:

- Apply warnings next to look-alike / sound-alike drug names that are at risk of selection error in the pharmacy software system and on the shelves.[1]
- Implement barcode scanning to minimize the risk of a 'wrong drug' error in the dispensing process.

Multiple Available Strengths

A prescription for metformin 500 mg was dispensed with metformin 850 mg tablets. The patient recognized the error before taking the medication and brought it back to the pharmacy to be corrected.

POTENTIAL CONTRIBUTING FACTORS:

- Confirmation bias due to multiple available strengths of metformin
- Lack of independent double check in the dispensing process before the medication is released to the patient

RECOMMENDATIONS:

- Implement barcode scanning to minimize the risk of a 'wrong strength' error in the dispensing process.
- Offer patient education and counselling for all prescriptions at pick-up to serve as a final check for correct product selection and therapeutic appropriateness.[2]

References

1. ISMP Canada. Direct oral anticoagulant medication incidents: a multi-incident analysis. Available from: https://www.ismp-canada.org/download/posters/Poster31-DirectOralAnticoagulantMedicationIncidents.pdf
2. ISMP Canada. 5 questions to ask about your medications. Available from: https://www.ismp-canada.org/download/ MedRec/MedSafety_5_questions_to_ask_poster.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: