Extending Hospital-Based Medication Incident Reporting to Enhance Medication Safety and Continuous Quality Assurance in Pharmacy Practice

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Objectives
Medication system safety and risk management is a relatively foreign concept in community pharmacy practice when compared to other health care settings in Canada. This stems in part from the lack of a medication incident reporting and learning program designed for community pharmacies.

Based on experience acquired from hospital-based incident reporting, the "ISMP Canada Community Pharmacy Incident Reporting (CPhIR) program" was created specifically for community / ambulatory pharmacies. The program was designed to provide opportunities to optimize learning from past mistakes in community pharmacies.

Methodology
After multiple iterations of feedback, pilot-testing, and consultation with community pharmacy practitioners, CPhIR is now available to community / ambulatory pharmacies (Figure 1).

CPhIR contributes to the Canadian Medication Incident Reporting and Prevention System (CMIRPS)).

Reported incidents are analyzed anonymously by analysts at ISMP Canada using a quantitative or qualitative aggregate analysis approach with key findings disseminated back to frontline users through safety bulletins.

The authors would like to acknowledge the support from the Ontario Ministry of Health and Long-Term Care for the development of the CPhIR program. Suggestions and input from SafetyNET-Rx research team members and participants have been extremely helpful and is very much appreciated.

Results
As of December 31, 2011:

- There are over 300 registered CPhIR users.
- 23,598 medication incidents have been voluntarily reported by 273 community pharmacies in Canada.

CPhIR provides users with a secure online interface to document medication incidents, export data for analysis, and view comparisons of individual pharmacy and aggregate data.

FIGURE 1

<table>
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<th>Field</th>
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<tr>
<td>Trend</td>
<td>Trend of incident</td>
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<td>Text box</td>
</tr>
<tr>
<td>Label</td>
<td>Label of incident</td>
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FIGURE 2

Anonymous Reporting of Medication Incidents

INPUT to CPhIR

- Medication Safety Tools
- Look-alike Sound-alike Drug Names
- CPhIR Newsletter
- Annotation of Incident Learning
- Tip of the Week: Practical solutions for common errors
- EE and Resources: Restricted PowerPoint presentation on medication safety

CONTRIBUTION to Overall Enhancement of Medication Safety

- Empower community pharmacies with the proper tools for solution development
- Increase awareness of failures and vulnerable practices in the medication-use system
- Encourage and motivate continuous quality assurance in pharmacy practice
- Facilitate peer learning and sharing of innovative strategies for systems improvement
- Foster an open, non-punitive reporting and learning culture to medication safety

OUTPUT from CPhIR

- Stats: Analysis of medication incidents by trend and pattern in both aggregate and comparison to aggregate data

Conclusion
The CPhIR program provides the necessary tools to empower community pharmacists to enhance safe medication practices (Figure 2).

Through the analysis of incidents and sharing of findings, practitioners can learn from reported incidents and implement safeguards.

Through anonymous reporting, community pharmacies can analyze medication incidents, identify root causes, and consequently implement system-based strategies for continuous quality assurance.

Creating a culture of patient safety with the support of a non-punitive reporting system needs to be encouraged within all areas of pharmacy practice.

References
1. ISMP Canada Community Pharmacy Incident Reporting (CPhIR) Program. www.cphir.ca
4. SafetyNET-Rx – Canada. www.safetyNETRx.ca

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