Assessing the Perception and Implementation of Continuous Quality Improvement in Manitoba Community Pharmacies: A Pre-Safety IQ Initiative

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Objectives
• Safety Improvement in Quality, or Safety IQ, is a standardized continuous quality improvement (CQI) program in Manitoba designed to prevent medication incidents (MIs) from happening in community pharmacies.
• The objective of this study was to explore the current perceptions, benefits, barriers, and experience of CQI programs in Manitoba community pharmacies prior to the launch of the province-wide Safety IQ initiative.

Methods
• We administered a 28-item online questionnaire to all registered pharmacy professionals in Manitoba through support from the pharmacy regulatory authority, College of Pharmacists of Manitoba.
• Responses were collected through a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) and open-ended questions.
• We performed descriptive statistics and qualitative thematic analysis, accordingly, on the collected data.

Results
• We collected 125 responses (Figure 1). Response rate was 8.05% (out of 1,523 practicing pharmacists and 30 listed technicians in Manitoba).
• Pharmacy professionals have:
  - A fairly positive perception of CQI programs and the associated benefits to patient care and safety (Table 1 and Table 2). CQI program was perceived as a platform for communication and shared learning with an ultimate goal of preventing MIs.
  - Concerns regarding implementation include potential requirement for additional resources (i.e. financial or staff) and fear of reporting and disclosing incidents.
  - A wide range of experiences with current CQI programs in their pharmacy. Having a simple, efficient program and support from management would be required for sustainability.
• A CQI program should include the following parameters, which align with the components of a formal, standardized CQI program, such as Safety IQ:
  - Anonymous reporting of MIs to an independent third party
  - Managing known or suspected MIs
  - Monitoring performance of staff, equipment and facilities
  - Sharing of potential medication risks
  - With respect to CQI program implementation, time considered to be the greatest challenge (Table 3).
  - CQI program adoption ranged from "unsure" or "no CQI program in place", to "recent adoption of < 5 years".
• Of those who implemented a CQI program, common elements include documentation of MIs, internal reporting, discussion with staff, and workflow changes.
• Pharmacy owners and managers were the most commonly listed personnel responsible for CQI program coordination, illustrating the crucial role that management plays in supporting CQI.
• Pharmacy professionals were unsure of where to look for resources on CQI, indicating an educational need. The College of Pharmacists of Manitoba and the Institute for Safe Medication Practices Canada were perceived as the next most common sources for additional guidance on CQI.

Table CQI Perception
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<thead>
<tr>
<th>CQI Perception</th>
<th>Mean*</th>
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<tbody>
<tr>
<td>Community pharmacy CQI programs should enable community pharmacies to timely and rapidly communicate medication incident (MI) details (e.g. contributing factors, outcomes) across multiple pharmacies, given the communicated information will be anonymized, even if they are business competitors.</td>
<td>3.93</td>
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<tr>
<td>Community pharmacy CQI programs should engage all staff, including those working at multiple pharmacies (e.g. relief pharmacists), in MI reporting and learning.</td>
<td>4.28</td>
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<td>Community pharmacy CQI programs should identify common and severe MIs occurring and make changes to prevent similar scenarios in the future.</td>
<td>4.40</td>
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Table CQI Program Benefits
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<tr>
<th>CQI Program Benefits</th>
<th>Mean*</th>
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<tr>
<td>A CQI program will allow my pharmacy to openly discuss errors in a supportive and blame-free environment.</td>
<td>4.08</td>
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<tr>
<td>A CQI program will increase my understanding of how workflow and dispensing processes can contribute to or help to mitigate (or reduce) errors.</td>
<td>4.16</td>
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<td>A CQI program will improve my awareness and caution against MIs when dispensing medications.</td>
<td>4.23</td>
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<td>A CQI program will allow me to explore MI trends occurring across pharmacies and assess the likelihood of a similar error occurring in my pharmacy.</td>
<td>4.24</td>
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<td>A CQI program will allow me to learn from the mistakes that have occurred within the pharmacy.</td>
<td>4.27</td>
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Table CQI Program Barriers
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<tbody>
<tr>
<td>Additional staff education and training (e.g. familiarization of online medication incident reporting systems) is a barrier to the implementation of a CQI program at my pharmacy.</td>
<td>3.20</td>
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<tr>
<td>Apprehensiveness with MI reporting (e.g. perceptions of negative business implications) is a barrier to the implementation of a CQI program at my pharmacy.</td>
<td>3.45</td>
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<tr>
<td>Cost (e.g. subscription to an online medication incident reporting system) is a barrier to the implementation of a CQI program at my pharmacy.</td>
<td>3.45</td>
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<tr>
<td>Increased staffing requirements/Involvement (e.g. MI reporting and discussion in addition to regular responsibilities) is a barrier to the implementation of a CQI program at my pharmacy.</td>
<td>3.60</td>
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<tr>
<td>Time (e.g. time to report MIs or having a staff meeting to discuss MIs) is a barrier to the implementation of a CQI program at my pharmacy.</td>
<td>3.92</td>
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Conclusions
• There is a lack of standardized, formal CQI process in place in Manitoba pharmacies. Implementation of CQI programs currently vary widely between pharmacies.
• Despite concerns such as increased resource requirements, pharmacy professionals appear to be open and supportive of a formal CQI program.
• Overall, this research provides support for the implementation of a standardized community pharmacy CQI program in Manitoba, such as Safety IQ, to advance patient and medication safety.

FIGURE 1. RESPONSES – Participants

- Pharmacy Pharmacists: 57%
- Pharmacy Owners / Managers: 32%
- Pharmacy Technicians: 11%
- Staff Pharmacists: 57%