Medication Safety Self-Assessment® (MSSA) for Community Pharmacy

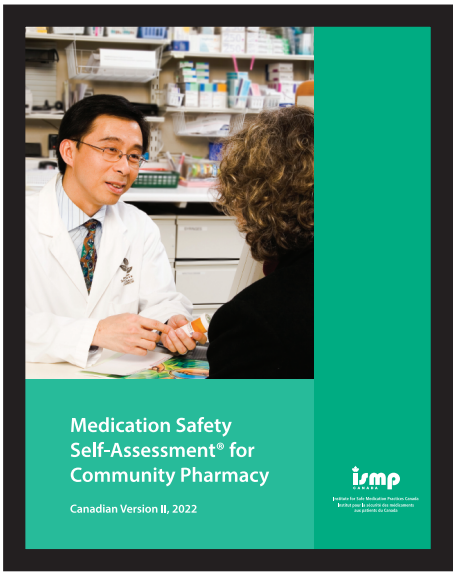
DATA SPOTLIGHT

June 2024

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

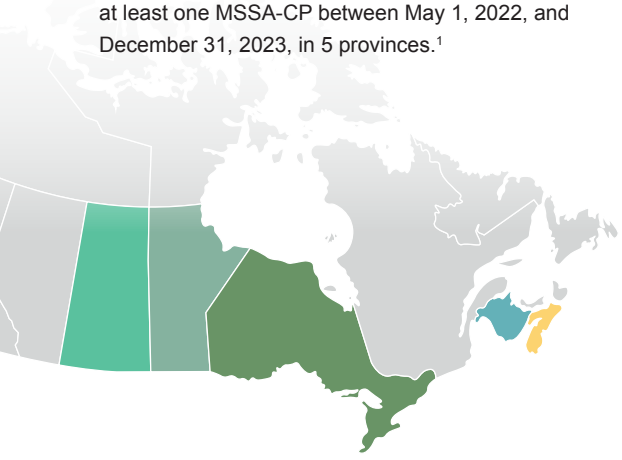
The updated Medication Safety Self-Assessment® (MSSA) for Community Pharmacy (MSSA-CP) is designed to help community pharmacy teams identify and address vulnerabilities that could lead to medication incidents and patient harm.

The MSSA-CP supports continuous quality improvement (CQI) initiatives in community pharmacies and is used to meet the requirements of CQI programs in various Canadian provinces. The MSSA-CP is comprised of 116 assessment items, divided into 7 key elements of a safe medication system (Table 1).

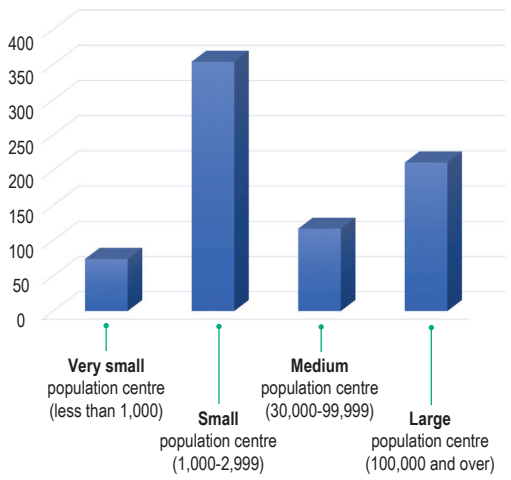


National Data:

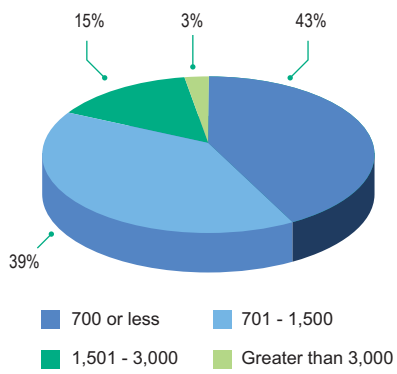
756 community pharmacies in Canada completed at least one MSSA-CP between May 1, 2022, and December 31, 2023, in 5 provinces.[1]



Population of Community Served



Weekly Prescription Volume



[1] The MSSA-CP – Canadian Version II was launched in May 2022.

Table 1

Key Elements of a Safe Medication System

I	Patient Engagement and Partnership
II	Medication Storage and Handling
III	Use of Technology and Devices
IV	Quality Assurance and Continuous Management
V	Addressing Known Areas of Risk
VI	Considerations for Selected Clinical Situations
VII	Considerations for Selected High-Alert Medications and Classes

How to Use the MSSA-CP for Quality Improvement:

1. Complete the MSSA-CP with your pharmacy team and compare your responses to anonymous aggregate data.
2. Identify lower scoring core characteristics and assessment items. Highlight key areas for improvement.
3. Brainstorm strategies to improve identified low-scoring areas.
4. For every strategy, document: relevance to patient safety, timeframe for implementation, individual team member responsibilities, potential barriers and challenges, and steps to monitor progress.
5. Prioritize the action plan in accordance with your team's goals.
6. Take action! Implement outlined strategies to improve medication safety in your community pharmacy.

Quality Improvement Opportunities:

- Review the highlighted assessment items in **Table 2** and add your pharmacy's individual MSSA-CP results.
- With your team, look at other results from your own assessment, comparing your results to the aggregate data.
  - o Identify areas where your results are strong and celebrate these successes!
  - o Focus your attention on assessment items or key element sections where your responses are lower than the aggregate data.
- Use the MSSA Action Plan Template as a guide to record and develop strategies to improve your pharmacy's score for assessment items.

Helpful Link: **Action plan template**

Focus on High-Alert Medications

Many of the items that scored the lowest in the aggregate MSSA-CP results were related to high-alert medications. High-alert medications are drugs that bear a heightened risk of causing significant harm when they are used in error.[I]

Table 2: Example Results for Aggregate Data (May 1, 2022 – December 31, 2023)

Assessment Item	Average Score (out of 4)[2,3]	Improvement Strategy
Recognition of High-Alert Medications **Self-Assessment Item 22.1:** Pharmacy team members receive training on safeguards to reduce the likelihood of errors with high-alert medications.	**2.97** **Your score:** _____	*Review the ISMP Canada High-Alert Medication List and User Guide and consider safeguards that can be incorporated in your pharmacy.* *Consider strategies to enhance pharmacy team awareness and provide guidance for specific safeguards; for example:* - *Add "high alert" auxiliary labels to stock bottles/ prescription vials to help notify team members during prescription processing and pharmacist clinical checks.* - *Add targeted notifications into the drug files for selected high-alert medications (e.g., methotrexate – "ensure weekly dosing"; high-dose opioids – "check morphine equivalents; provide naloxone kits"*
Patient Education **Self-Assessment Item 22.2:** Patients prescribed high-alert medications are provided with information about how to prevent common types of errors known to be problematic with these drugs (e.g., methotrexate inadvertently prescribed daily instead of weekly for arthritis, wrong dose errors due to frequently changing warfarin orders, tacrolimus dosage form mix-ups).	**3.01** **Your score:** _____	*Implement a mechanism to ensure there is counselling and follow-up for all new prescriptions of high-alert medications. During counselling sessions, emphasize the importance of patient awareness of their medication regimen and how to address unexpected changes that could lead to harm (see self-assessment item 22.2 for examples of unexpected changes).*
Safe Use of Methotrexate **Self-Assessment Item 26.1:** Patients prescribed methotrexate for non-oncologic indications receive clear verbal and written instructions that specify the day of the week to take their medication.	★ **3.33** **Your score:** _____	*When possible, dispense only a 4-week supply of methotrexate at a time.* *Ensure that every patient receives counselling and written information (e.g., the methotrexate information sheet from ISMP). Ideally, pharmacy computer systems should automatically generate this information for all new and refill prescriptions.[II]* *For more strategies related to the safe use of methotrexate, refer to this ISMP Canada Safety Bulletin on incidents involving low-dose methotrexate.[III]*
Safe Use of Opioids **Self-Assessment Item 27.5:** Patients are provided with written information about safe use of opioid medications, including appropriate storage and disposal (e.g., ISMP Canada resources for safe use of opioids for patients and families; see https://ismpcanada.ca/resource/opioid-stewardship/).	★ **3.59** **Your score:** _____	*Review relevant resources to support appropriate management of high-alert medications, including: identifying patients taking high morphine equivalents per day, appropriate opioid dosing, offering naloxone kits, and tapering recommendations.[IV]*

Interesting Fact:

Higher prescription volume stores (more than 1,500 scripts per week) scored higher on the following high-alert assessment item: Naloxone kits are offered to patients receiving opioid prescriptions.

[2] MSSA scores are assigned numeric values ranging from 0 (Not Implemented or Not Applicable) to 4 (Always Implemented).

[3] The average score is obtained from 756 community pharmacies in 5 provinces (Manitoba, New Brunswick, Nova Scotia, Ontario, and Saskatchewan) that submitted MSSA-CP data.

Resources

- Canadian High-alert list: https://ismpcanada.ca/resource/highalertlist/

[I] A New Canadian Approach to High-Alert Medications. ISMP Can Saf Bull. 2024 [cited 2024 Apr 22];24(1):1-5. Available from: https://ismpcanada.ca/bulletin/a-new-canadian-approach-to-high-alert-medications/

[II] Institute for Safe Medication Practices. Oral Methotrexate [Patient Information Sheet]. 2018 [cited 2024 Apr 22]. Available from: https://www.ismp.org/sites/default/files/attachments/2018-11/Methotrexatefinal.pdf

[III] Severe Harm and Deaths Associated with Incidents Involving Low-Dose Methotrexate. ISMP Can Saf Bull. 2015 [cited 2024 Apr 22];15(9):1-5. Available from: https://ismpcanada.ca/wp-content/uploads/ISMPCSB2015-09_Methotrexate.pdf

[IV] Sink or Swim? Helping Patients and Practitioners to Understand Potencies and Overdose Risk. ISMP Can Saf Bull. 2017 [cited 2024 Apr 22];17(8):1-6. Available from: https://ismpcanada.ca/wp-content/uploads/ISMPCSB2017-08-UnderstandOpioids.pdf

Helpful Link: **Community Pharmacy Reporting & Learning**

ISMP CANADA

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