

Medication Safety Self-Assessment:
**Focus on “Never Events”
in Community Pharmacy**

2021



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Introduction

The Institute for Safe Medication Practices Canada (ISMP Canada) and the Canadian Patient Safety Institute (CPSI) are pleased to provide this **Medication Safety Self-Assessment: Focus on “Never Events” in Community Pharmacy (MSSA-Never Events-Community)**, developed in collaboration with stakeholders.

This assessment is designed to help community pharmacy teams to identify and address vulnerabilities related to high-risk processes, use of high-alert medications and treatment of vulnerable populations to avoid “never events”^{1,2} – situations known to have previously caused harm to patients, for which safeguards are available.

This program supports community pharmacy teams to:

- *Raise awareness of high-risk situations and “never events” in the community pharmacy setting;*
- *Identify high-leverage strategies to reduce the likelihood of harmful medication incidents related to known areas of risk;*
- *Create a baseline measurement for the current implementation of recommended strategies to avoid harm events; and,*
- *Evaluate progress over time through periodic repeated measurement.*

This assessment is intended to represent leading practices and should be considered complementary to national and provincial/territorial standards of practice and regulatory requirements. Items included in this assessment reflect selected vulnerabilities and do not represent all possible risks. In addition to this self-assessment, pharmacy teams are encouraged to complete ISMP Canada’s MSSA for Community Pharmacy for a more comprehensive assessment of medication safety practices.

Topics and content for this MSSA have been derived from a variety of sources, including the following:

- ISMP Canada resources and learning from analysis (e.g., reports to the National Incident Data Repository for Community Pharmacy, Safety Bulletins, other MSSA programs, recommendations from community pharmacy on-site assessments)
- ISMP (United States) resources (e.g., newsletters, MSSA programs)
- CPSI resources (e.g., Global Patient Safety Alerts)
- National Association of Pharmacy Regulatory Authority (NAPRA) model standards of practice for pharmacists and pharmacy technicians

¹ Morrison C. Pharmacists called on to create “never event” list for pharmacy. The Pharmaceutical Journal [Internet] 14Mar2014. [cited 2021Feb19] Available from: <https://www.pharmaceutical-journal.com/news-and-analysis/pharmacists-called-on-to-create-never-event-list-for-pharmacy/11135384.article?firstPass=false>

² Canadian Patient Safety Institute and Health Quality Ontario. Never Events for Hospital Care in Canada Safer Care for Patients, [Internet] September 2015 [cited 2021Feb19]. Available from: <https://www.patientsafetyinstitute.ca/en/toolsResources/NeverEvents/Documents/Never%20Events%20for%20Hospital%20Care%20in%20Canada.pdf>

Selected supporting references for individual assessment items have been provided in Appendix 1.

This assessment is aligned with the World Health Organization Global Patient Safety Challenge: Medication Without Harm.³ It is the third assessment in a series of “never event” assessments, following customized programs for acute care⁴ and long-term care⁵.

Development and validation of the assessment content was supported by an expert Advisory Panel which included patient and family advisors, practicing pharmacists and pharmacy technicians and representation from regulatory authorities, academic institutions, a national pharmacy association and a prescriber. In addition, the validation process included a pilot test and consultation with selected stakeholders.

The MSSA-Never Events-Community assessment includes 65 items, divided into 6 sections. The high-level topics are referred to as “Key Elements” and sub-sections are called “Core Characteristics”. The first section focuses on general strategies for safety, followed by sections describing considerations for high-alert medications and selected clinical situations. Not all items will be applicable in all settings.

This self-assessment supports continuous quality improvement initiatives in community pharmacies. The value of ongoing evaluation with a self-assessment program was highlighted in a 12-year review of responses to ISMP Canada’s MSSA for Long-term Care, which showed that mean total self-assessment scores improved over time.⁶

The MSSA-Never Events-Community and its components are copyrighted by ISMP Canada. The assessment is intended for use as part of ongoing quality improvement activities. Other uses, such as in education presentations external to an individual pharmacy or corporate group require written permission from ISMP Canada.

³ World Health Organization. Medication Without Harm: WHO’s Third Global Patient Safety Challenge. [Internet] [cited 2021Feb19] Available from: <https://www.who.int/patientsafety/medication-safety/en/>.

⁴ Institute for Safe Medication Practices Canada and Canadian Patient Safety Institute. Medication Safety Self-Assessment: Focus on “Never Events” in Hospitals and Ambulatory Care Centres, [Internet] 2019 [2021Feb19]. Available from: <https://mssa.ismp-canada.org/never-events-hosp-amb>

⁵ Institute for Safe Medication Practices Canada and Canadian Patient Safety Institute. Medication Safety Self-Assessment: Focus on “Never Events”, [Internet] 2019 [cited 2021Feb19]. Available from: <https://mssa.ismp-canada.org/never-events-ltc>.

⁶ Medication Safety in Long-Term Care: Measuring Quality Improvement Over 12 Years. ISMP Canada Safety Bulletin, [Internet] 2019 [cited 2021Feb19]; 19(3). Available from: <https://www.ismp-canada.org/download/safetyBulletins/2019/ISMPCSB2019-i3-LTC-MSSA.pdf>.

Advisory Panel

(in alphabetical order)

Jennifer Bonner, Pharmacy Manager, Bedford Superstore, Bedford, Nova Scotia

Eileen Chang, Patients for Patient Safety Canada

Sarah-Lynn Dunlop, Professor, Pharmacy Technician Program, Georgian College, Barrie, Ontario

Ronda Eros, Practice Consultant, College of Pharmacists of Manitoba

Sandra Hanna, CEO, Neighbourhood Pharmacy Association of Canada

Lindsay Marks, Pharmacy Technician, Sandstone IDA, Blackfalds, Alberta, and Education Director, Pharmacy Technician Society of Alberta

Laura McLaughlin, Pharmacy Manager, Lawton's, Dartmouth, Nova Scotia

Jeff Mehlretter, Vice President, Pharmacy and Business Development, Neighbourhood Pharmacy Association of Canada

Jeannette Sandiford, Assistant Registrar – Field Operations and Quality Assurance, Saskatchewan College of Pharmacy Professionals

Anastasia Shiamptanis; Strategic Policy Lead, Ontario College of Pharmacists

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ISMP Canada Team

Michael Hamilton, Medical Director, Acting Director, Community Pharmacy Programs

Rajiv Rampersaud, Medication Safety Pharmacist

Melissa Sheldrick, Patient and Family Advisor

Project Co-Chairs:

Julie Greenall, Senior Director, Projects and Consultations, ISMP Canada

Stephen Routledge, Senior Program Manager, Canadian Patient Safety Institute

Instructions for Completing the Self-Assessment

1. Establish a team similar to the following:

- Pharmacy owner/manager
- Staff pharmacist(s)
- Pharmacy technician(s)
- Pharmacy assistant(s)
- Pharmacy clerk(s)
- Pharmacist/pharmacy technician student(s)

Other team members to consider:

- Patient(s) of the pharmacy – to assist in evaluating items related to patient engagement and partnership
- Prescriber(s) – to assist in evaluating items related to interprofessional communication/ collaboration
- Front-shop manager/ supervisor
- District manager in a corporate setting

2. Distribute the assessment document before the team meeting so that each team member can review and consider the questions in advance.

It is suggested that team members read and understand the definitions before reviewing the assessment.

3. At a team meeting, discuss each assessment item and evaluate the pharmacy's current success in implementing the item.

As necessary, investigate and verify the level of implementation for each item with other team members outside the assessment team.

Possible responses:

- A** This item is **fully implemented**
- B** This item is **fully implemented for some** activities, patients, medications and/ or staff in the pharmacy.
- C** This item has been **partially implemented** for some activities, patients, medications and/ or staff in the pharmacy.
- D** This item has been **formally discussed and considered** but not implemented
- E** There has been **no activity** to implement this item
- NA** Not applicable – use this option if the assessment criterion does not apply to your pharmacy

Teams may wish to consider assigning an individual to record any discussion generated around each assessment item and the rationale behind the selected choice. This information, meant for internal use only, can assist the team when reviewing scores for individual items or completing a future assessment.

Scoring Guidelines:

For all assessment items:

- All assessment items refer to activities undertaken within the pharmacy or by pharmacy team members, unless otherwise noted.
- Choice of A (full implementation) is appropriate only if all team members agree that the item or action is reliably implemented (i.e., occurs in more than 90% of patient encounters). For items with multiple components, if only one or some of the components have been fully implemented, select C or D.

For assessment items that are not applicable to your pharmacy:

Some assessment items may not be applicable to all pharmacies; for these items, criteria for a “not applicable” response have been provided. For example, some pharmacies may not provide opioid agonist therapy and therefore there will be no associated risks.

4. Finalize your assessment.

You will be prompted to save your responses for each section before you proceed to the next section. When all responses have been entered, you will be prompted to “Check MSSA for errors” and then to submit your results.

Once you have submitted your results you cannot edit them. The web-based survey tool will immediately download the information into a secure database maintained solely by ISMP Canada. Individual results can be viewed or accessed only by the pharmacy submitting them. No data will be maintained on the Internet survey form after it has been submitted.

Confidentiality is assured.

5. Print/view your completed assessment.

Once your results have been submitted you will be able to print a report summarizing your results.

6. Compare your results to the aggregate.

Once your results have been submitted you will immediately⁷ be able to compare your results to the aggregate response. You can compare to the total aggregate or to a subset (e.g., by province/territory or to demographically similar pharmacies), using the filters provided.

7. Using aggregate data

Pharmacies can freely share their own results internally and externally as they deem appropriate; however, any comparisons to aggregate data can only be shared externally with written permission from ISMP Canada.

ISMP Canada and CPSI may use aggregate data for research and education purposes.

⁷ To maintain confidentiality, a minimum of 3 responses from different pharmacies are required before aggregate data can be viewed.

Frequently Asked Questions

How many team meetings should we schedule?

This self-assessment has been designed to be completed in one meeting of approximately one hour.

Why do we need a team to complete the self-assessment? Can't the pharmacy owner/manager do it alone?

Because medication use is a complex process, the value and accuracy of the assessment is significantly reduced if it is completed by a single individual. Completion of the assessment is also an educational tool that can benefit the whole pharmacy team.

Do we need management representation on our team?

Participation of the pharmacy owner/manager, and corporate district manager if applicable, is valuable because the assessment contains many items that relate to the pharmacy's overall commitment to patient safety. Furthermore, participation in the self-assessment provides management staff with insight into areas of risk in the medication-use system.

What if an item doesn't apply to the services offered by my pharmacy?

A "not applicable" response is available for selected assessment items.

May I make copies of the self-assessment document?

The copyright allows you to make copies of the self-assessment for internal use. You may not modify or alter the content in any way. Furthermore, you may not modify, transmit, post, or use the contents of this document for personal, public, or commercial purposes unless you have obtained written permission from ISMP Canada.

My pharmacy is part of a group and there are multiple sites. Do I need a password for each one?

It is recommended that each pharmacy within a corporate group complete the assessment independently. Each site will need its own password.

How are individual items scored?

The assessment items are scored as follows:

- A=4 This item is fully implemented.
- B=3 This item is fully implemented for some activities, patients, medications and/ or staff in the pharmacy.
- C=2 This item has been partially implemented for some activities, patients, medications and/ or staff in the pharmacy.
- D=1 This item has been formally discussed and considered, but not implemented.
- E=0 There has been no activity to implement this item.

NA=4 Not applicable items are scored as “fully implemented” since they should reflect items that do not present any safety risks to the patients served by the pharmacy.

How can we use our self-assessment results?

Once your data has been entered into the web-based program, there are several ways to examine the compiled information.

View/print options include:

- Summary of results (“report card” format)
- Graphs comparing your pharmacy’s results to the aggregate database for key elements and individual assessment items, including available filters based on demographic information submitted. (To ensure confidentiality, there must be at least 3 respondents in the aggregate to generate graphs.)

Can I share my data outside my organization?

Pharmacies can freely share their own results internally and externally as they deem appropriate; however, any comparisons to aggregate data can only be shared externally with written permission from ISMP Canada.

Definitions

It is suggested that these definitions be reviewed before beginning the assessment.

Adverse Drug Event

An injury from a medicine or lack of an intended medicine – includes adverse drug reactions and harm from medication incidents.⁸

Bar Coding

Any encoded identifying mark representing data that can be read with a computerized reading device, such as a scanner or imager.¹⁴

Barcode Scanning Technology

The use of optical machine-readable representation of data found in barcodes on medication packages.

Chemical Abstract Service Number⁹

A chemical abstract service (CAS) number, also referred to as chemical abstract service registry number (CASRN) is a unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature. The CAS number is a useful identifier for compounding ingredients that do not have a drug identification number.

Concentrated Insulin

Any insulin with a concentration greater than 100 units/mL, including U-200, U-300, and U-500 insulin.

Critical Incident

An incident resulting in serious harm (loss of life, limb, or vital organ) to a patient, or the significant risk thereof. Incidents are considered critical when there is an evident need for immediate investigation and response. The investigation is designed to identify contributing factors and the response includes actions to reduce the likelihood of recurrence.¹⁰

Culture of Safety

The underlying beliefs and values of an organization as they relate to safety as a priority.¹¹

⁸ Adapted from Bates DW, Spell N, Cullen DJ, Burdick E, Laird N, Petersen LA, Small SD, Sweitzer BJ and Leape LL, "The Costs of Adverse Drug Events in Hospitalized Patients. Adverse Drug Events Prevention Study Group," *Journal of the American Medical Association* 277, 4 (January 22, 1997): pp. 307–11.

⁹ CAS Registry Number. Wikipedia definition. [Internet] [cited 2021Feb19] Available from: https://en.wikipedia.org/wiki/CAS_Registry_Number

¹⁰ Davies J, Hebert P and Hoffman C, *Canadian Patient Safety Dictionary* (Ottawa: Royal College of Physicians and Surgeons of Canada, 2003).

¹¹ ISMP Canada, HSO, CPSI, [Internet] 2019 [cited 2021Feb19]. ISMP Canada Definitions webpage: <https://www.ismp-canada.org/definitions.htm>

Cycle of Chemotherapy

A dose of chemotherapy that is repeated at regular intervals. A treatment protocol may include several chemotherapy cycles. For example, the CHOP chemotherapy protocol may consist of one cycle given every 3 weeks, with a total of six cycles in the course of therapy.

Dangerous Abbreviations, Symbols and Dose Designations

Abbreviations, symbols and dose designations that have been identified as easily misinterpreted or involved in medication incidents leading to harm and should be avoided in medication-related communications.¹²

Documented Plan

An established process that is available in written or electronic form and readily accessible to all team members.

Family Caregiver

Defined as family members and other significant people (as identified by the care recipient) who provide care and assistance to individuals living with a debilitating physical, mental or cognitive condition.^{13,14}

Similar terms: unpaid caregiver, informal caregiver

Harm

Harm is defined as a temporary or permanent impairment in body functions or structures. It includes mental, physical, sensory functions and pain.¹⁵

High-Alert Medications

High-alert medications are drugs that bear a heightened risk of causing significant harm when they are used in error.¹⁶

Human Error

Inadvertently doing other than what was intended (e.g., a mental slip, lapse, or mistake). Human errors are unintentional acts, not behavioural choices.

¹² Institute for Safe Medication Practices Canada. ISMP Canada's Do Not Use list of dangerous abbreviations, symbols and dose designations [Internet] 2018 [cited 2021Feb19] ; available from:

<http://www.ismp-canada.org/download/ISMPCanadaListOfDangerousAbbreviations.pdf>

¹³ Family caregiver (definition). Canadian Caregiver Coalition 2014; quoted in Mobilizing Action Integrated Action Plan: A Canada that recognizes, respects and supports the integral role of family caregivers in society. [Internet] Updated August 2015 [cited 2021Feb19]. Available from: https://www.carerscanada.ca/wp-content/uploads/2015/09/Moblizing-Action-Plan-Report_21.pdf.

¹⁴ Family (Informal) Caregiver (definition). Family Caregiver Alliance website [Internet] [cited 2021Feb19] Available from: <https://www.caregiver.org/resource/definitions-0/>

¹⁵ Developed by the collaborating parties of the Canadian Medication Incident Reporting and Prevention System, [Internet] 2005 [cited 2021Feb19]. ISMP Canada Definitions webpage: <https://www.ismp-canada.org/definitions.htm>

¹⁶ Institute for Safe Medication Practices. ISMP's List of High-Alert Medications in Community/Ambulatory Healthcare [Internet] 2011 [cited 2021Feb19]. Available from: <https://www.ismp.org/sites/default/files/attachments/2017-11/highAlert-community.pdf>

Incident Analysis

A structured process that aims to identify what happened, how and why it happened, what can be done to reduce the risk of recurrence and make care safer, and share learning.¹⁷

Incident Management:

The various actions and processes required to conduct the immediate and ongoing activities following an incident. Incident analysis is part of incident management.¹⁷

Independent Double Check

A process in which a second practitioner conducts a verification. Such verification can be performed in the presence or absence of the first practitioner. In either case, the most critical aspect is to maximize the independence of the double check by ensuring that the first practitioner does not communicate what he or she *expects* the second practitioner to see, which would create bias and reduce the visibility of an error. An automated check, e.g., bar coding is an acceptable independent double check; however, consideration must be given to the parameters that can be checked electronically before human checks are eliminated.¹⁸

Medication Device

Equipment such as infusion pumps, implantable pumps, syringes, pen devices that contain medication (e.g., epinephrine, insulin), tubing, patient-controlled analgesia pumps, automated compounding devices, robotics, and other related devices that are used for medication preparation, dispensing, and administration.¹⁹

Medication Incident

Any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of a healthcare professional or patient. Medication incidents may be related to professional practice, drug products, procedures, and systems, and include prescribing, order communication, product labelling/ packaging/ nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use.²⁰

¹⁷ Incident Analysis Collaborating Parties. Canadian Incident Analysis Framework. Edmonton, AB: Canadian Patient Safety Institute; [Internet] 2012 [cited 2021Feb19]. Incident Analysis Collaborating Parties are Canadian Patient Safety Institute (CPSI), Institute for Safe Medication Practices Canada, Saskatchewan Health, Patients for Patient Safety Canada (a patient-led program of CPSI), Paula Beard, Carolyn E. Hoffman and Micheline Ste-Marie. Available from: <http://www.patientsafetyinstitute.ca/en/toolsResources/IncidentAnalysis/Documents/Canadian%20Incident%20Analysis%20Framework.PDF>

¹⁸ Institute for Safe Medication Practices Canada Definitions page [Internet] January 2005 [cited 2021Feb19]. Adapted with permission from: Institute for Safe Medication Practices (US). The virtues of independent double checks – they really are worth your time! ISMP Safety Alert. 2003 March 6;8(5):1. Available from: <https://www.ismp-canada.org/definitions.htm>.

¹⁹ Institute for Safe Medication Practices. ISMP Medication Safety Self Assessment for Hospitals [Internet] 2011 [cited 2021Feb19]. Available from: <http://www.ismp.org/selfassessments/Hospital/2011/full.pdf>

²⁰ Adapted with permission from the National Coordinating Council for Medication Error Reporting and Prevention, What Is Medication Error? Developed by the collaborating parties¹ of the Canadian Medication Incident Reporting and Prevention System. [Internet] 2001 [cited 2021Feb19]. ISMP Canada Definitions webpage: <https://www.ismp-canada.org/definitions.htm>

Simplified Definition: A mistake with medication, or a problem that could cause a mistake with medication.²¹

Medication Safety

Freedom from preventable harm with medication use.²²

Near Miss or Close Call

An event that could have resulted in unwanted consequences but did not because either by chance or through timely intervention the event did not reach the patient.²³

Similar Terms: Near Hit or Good Catch

Never Event

An event known to cause severe harm to a patient, or with the potential to do so, and is preventable by the health care professional team or organization.^{24,25}

Opioid-naïve

Individuals who have not previously been taking opioids on a routine basis in a dose sufficient to produce tolerance (see “opioid-tolerant”).

Opioid-tolerant

Patients receiving, for 1 week or longer, at least: 60 mg oral morphine/day; 25 mcg transdermal fentanyl/hour; 30 mg oral oxycodone/day; 8 mg oral hydromorphone/day; 60 mg oral hydrocodone/day; or an equianalgesic dose of another opioid, including heroin and/or non-prescribed opioids.²⁶

²¹ ISMP Canada, [Internet] 2010 [cited 2021Feb19]. ISMP Canada Definitions webpage: <https://www.ismp-canada.org/definitions.htm>

²² ISMP Canada, [Internet] 2007 [cited 2021Feb19]. ISMP Canada Definitions webpage: <https://www.ismp-canada.org/definitions.htm>

²³ Developed by the collaborating parties of the Canadian Medication Incident Reporting and Prevention System. [Internet] 2005 [cited 2021Feb19]. Available from: <https://www.ismp-canada.org/definitions.htm>.

²⁴ Morrison C. Pharmacists called on to create “never event” list for pharmacy. PharmJ [Internet] 4 MAR 2014 [cited 2021Feb19]. Available from: <https://www.pharmaceutical-journal.com/news-and-analysis/pharmacists-called-on-to-create-never-event-list-for-pharmacy/11135384.article?firstPass=false>

²⁵ Never Events for Hospital Care in Canada. Health Quality Ontario and the Canadian Patient Safety Institute. [Internet] September 2015 [cited 2021Feb19]. Available from: <http://www.patientsafetyinstitute.ca/en/toolsResources/NeverEvents/Documents/Never%20Events%20for%20Hospital%20Care%20in%20Canada.pdf>

²⁶ Institute for Safe Medication Practices. Medication Safety Self Assessment® for High-Alert Medications, [Internet] 2018 [cited 2021Feb19]. Available from: <https://www.ismp.org/assessments/high-alert-medications>

Oral Anti-Cancer Drug (OACD)

A drug that is used to treat cancer (or other indications) and includes some hormonal agents. The health risks associated with exposure to individual oral anti-cancer drugs are typically assessed based on their potential for carcinogenicity, teratogenicity, genotoxicity, reproductive toxicity or organ toxicity.²⁷

Pharmacy Practice Management System

The information management systems used by pharmacy professionals²⁸ (i.e., pharmacy computer/software systems).

Safety

Freedom from accidental injuries.²⁹

Secure Storage Area

A designated, restricted access area that meets national and provincial/territorial regulatory requirements for storage of targeted substances such as opioids and benzodiazepines; for example, a safe.

System

A set of interdependent elements (people, processes, equipment) that interact to achieve a common aim.³⁰

TALLman Lettering

A method used to assist in the differentiation of look-alike/sound-alike drug names through the application of UPPER-CASE lettering to certain sections of drug names.³¹

²⁷ Vu K, Emberly P, Brown E, et al. Recommendations for the safe use and handling of oral anticancer drugs in community pharmacy: A pan-Canadian consensus guideline. *Canadian Pharmacists Journal / Revue des Pharmaciens du Canada*, vol. 151, 4: pp. 240-253. [Internet] First published May 16, 2018 [cited 2021Feb19]. Abstract available from : <http://journals.sagepub.com/doi/abs/10.1177/1715163518767942>.

²⁸ National Association of Pharmacy Regulatory Authorities. Pharmacy Practice Management Systems: Requirements to Support NAPRA's "Model Standards of Practice for Canadian Pharmacists". [Internet] November 2013 [cited 2021Feb19] Available from: https://napra.ca/sites/default/files/documents/NAPRA_Pharmacy_Practice_Management_Systems_November2013_b.pdf

²⁹ Kohn LT, Corrigan JM, Donaldson MS, eds. *To err is human: Building a safer health system*. Washington, DC, National Academy Press, [Internet] 1999 [cited 2021Feb19]. Available from: <https://pubmed.ncbi.nlm.nih.gov/25077248/>

³⁰ World Alliance for Patient Safety. WHO draft guidelines for adverse event reporting and learning systems. Geneva (Switzerland): World Health Organization; [Internet] 2005 [cited 2021Feb19]. Available from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiy8M_SvLLuAhVJMikFH_YhwBWgQFjAAegQIARAC&url=https%3A%2F%2Fapps.who.int%2Firis%2Fhandle%2F10665%2F69797&usq=AOvVaw2s4AE_Ak5ZbW6mj4isO0dnw.

³¹ Application of TALLman Lettering for Selected High-Alert Drugs in Canada. *ISMP Can Saf Bull*; 15(10), p. 1-3. Available from: https://www.ismp-canada.org/download/safetyBulletins/2015/ISMPCSB2015-10_TALLman.pdf

Demographic Information

1. In which province or territory is your pharmacy located: _____

2. How big is the community³² served by your pharmacy?
 - Very small population centre (less than 1,000)
 - Small population centre (1,000 - 29,999)
 - Medium population centre (30,000 - 99,999)
 - Large population centre (100,000 and over)

3. What is your pharmacy type? (Select the one most relevant option)
 - Community pharmacy
 - Hospital outpatient pharmacy
 - Specialty pharmacy
 - Central fill pharmacy only
 - Compounding pharmacy only
 - Pharmacy service provider for long-term care homes/assisted living only
 - Other: _____

4. What services does your pharmacy offer? (Select all that apply)
 - Dispensing services
 - Commercially available medications to individual patients
 - Commercially available medications to residential care settings (e.g., long-term care, retirement homes, group homes, correctional facilities)
 - Compliance/blister packaging
 - Compounding, non-sterile
 - Compounding, sterile
 - Compounding, hazardous (either sterile or non-sterile)
 - Opioid agonist therapy (e.g., methadone, buprenorphine/naloxone)
 - Pharmacy service provider for specialty medications (e.g., HIV medications, veterinary medicines)
 - Clinical Services
 - Medication reviews
 - Prescribing: adapting or extending a prescription

³² Statistics Canada Definitions (archived content); available from:
<https://www.statcan.gc.ca/eng/subjects/standard/sgc/notice/sgc-06>.

- Prescribing: at initial access or managing ongoing therapy with additional prescribing authorization
- Medication administration
 - Injections (e.g., vaccines)
- Other: _____

5. How many prescriptions of all types are dispensed by your pharmacy PER WEEK?

- 700 or less
- 701-1,500
- 1,501-3,000
- 3,001-4,500
- 4,500-6,000
- 6,001-12,000
- More than 12,000

6. How many Full Time Equivalent (FTE) staff work at this location?

(1 FTE represents 2000 hours of worked time per year or 40 hours per week. For part time staff, please indicate the percentage FTE; e.g., 3 days per week equals 0.6 FTE.)

- _____ Pharmacist (operations; e.g., day-to-day dispensing)
- _____ Pharmacist (clinical services only)
- _____ Pharmacist (administrative/management)
- _____ Registered pharmacy technician
- _____ Pharmacy assistant (graduate of a pharmacy assistant or technician program)
- _____ Pharmacy assistant (in-house trained/no formal education)
- _____ Pharmacy cashier/clerk
- _____ Pharmacy student or intern
- _____ Pharmacy technician student
- _____ Other

7. How many hours is your pharmacy open per week?

- Less than 40
- 41-55
- 56-70
- 71-100
- More than 100

8. What percentage of the open hours are pharmacy technicians and support staff (e.g., pharmacy assistants, clerks, etc.) scheduled to work?
- Less than 25%
 - 26-49%
 - 50-75%
 - 76-90%
 - 91-100%

9. How is your pharmacy owned?
- Corporate/Franchise
 - Independent – Banner
 - Independent – Non-Banner
 - Hospital
 - Other: _____

10. Is your pharmacy part of a larger corporate group?
- No
 - Yes

How many pharmacies are there in your corporate group?

- Small chain (less than 10 stores)
- Medium chain (11-50 stores)
- Large chain (51-100 stores)
- Very large chain (more than 100 stores)

11. Has your pharmacy previously completed a self-assessment program (e.g., ISMP Canada Medication Safety Self-Assessment for Community/Ambulatory Pharmacy, Ontario College of Pharmacists Patient Safety Self-Assessment)?
- Don't know
 - No
 - Yes

Assessment Tool

Scoring Your Self-Assessment

- A** This item is **fully implemented**.
- B** This item is **fully implemented for some** activities, patients, medications and/ or staff in the pharmacy.
- C** This item has been **partially implemented** for some activities, patients, medications and/ or staff in the pharmacy.
- D** This item has been **formally discussed and considered** but not implemented
- E** There has been **no activity** to implement this item
- NA** Not applicable – use this option if the assessment criterion does not apply to your pharmacy

I. Patient Engagement and Partnership

Core Characteristic # 1: Patient Engagement

The pharmacy team works to actively engage patients and family caregivers as partners in their care.

Self-Assessment Items		A	B	C	D	E	NA
1.1	<p>Patients are always offered the opportunity to speak with a pharmacist about their medication use.</p> <p>During the conversation, the pharmacist:</p> <ul style="list-style-type: none"> • Discusses information about common types of errors known to be problematic with particular medications; • Assesses the patient’s ability to use and adhere to prescribed treatment, including demonstrated competency with medication devices (with intervention with the prescriber when adherence/competency is in question); • Uses communication aids to support patients with communication difficulties (e.g., language, visual/hearing impairment); and, • Encourages patients to ask questions (e.g., using the framework presented in <i>5 Questions to Ask About Your Medications</i>; see https://www.ismp-canada.org/medrec/5questions.htm). 						
1.2	<p>Pharmacies post information for patients about how they can report medication incidents to www.mederror.ca [English] or www.erreurmed.ca [French].</p>						

Core Characteristic # 2: Therapeutic Evaluation

Pharmacists have sufficient clinical information about patients to support pharmaceutical care activities.

Self-Assessment Items		A	B	C	D	E	NA
2.1	<p>There is a complete and accurate patient record that supports reassessment, monitoring and follow up by other pharmacists.</p>						

Core Characteristic # 2: Therapeutic Evaluation

Pharmacists have sufficient clinical information about patients to support pharmaceutical care activities.

Self-Assessment Items		A	B	C	D	E	NA
2.2	A patient information form or standardized interview process is used to obtain medical and medication history information for new patients that includes current medications (prescription and non-prescription, including natural health products), medical conditions, allergies and intolerances, and there is a process to regularly update this information in the patient's file.						
2.3a	Pharmacists regularly ask patients about laboratory testing and results for medications that require ongoing monitoring (e.g., individual drug levels, HbA1C, lipid levels, blood pressure) and information shared is recorded in the patient's profile.						
	OR						
2.3b	Where access exists, pharmacists regularly utilize up-to-date, patient-specific clinical data (e.g., laboratory test results) to support clinical drug monitoring.						

II. Medication Storage and Handling

Core Characteristic # 3: Inventory System

The inventory system promotes the safe use of medications.

Self-Assessment Items		A	B	C	D	E	NA
3.1	When a new item is added to the pharmacy inventory, a process exists to evaluate the potential for error with the new medication and strategies are implemented to reduce the likelihood of dispensing errors as well as errors that might be made by patients (for example, differentiation for look-alike/sound-alike medications, posted preparation instructions, patient handouts for complex instructions).						

Core Characteristic # 4: Dispensing Process

The dispensing process is designed to minimize error opportunities.

Self-Assessment Items		A	B	C	D	E	NA
4.1	When telephone orders must be taken, the order is immediately written down and read back to the prescriber for confirmation, including articulating potential areas for misinterpretation such as look-alike/sound-alike drug names, dangerous abbreviations, symbols, and dose designations.						
4.2	When dispensing a new prescription, the original paper prescription or a scanned image is referenced at each step in the dispensing process to increase error detection opportunities during the first fill.						
4.3	All prescriptions logged for future dispensing are verified against the original prescription (e.g., a filed copy, a scanned copy or an e-prescription) for accuracy, and against the medication profile to ensure continued appropriateness, before any medication is dispensed.						
4.4	Patients are always asked to provide two identifiers (e.g., name and date of birth) before medications are provided, both in the pharmacy and on delivery. <i>Select NA if your pharmacy provides service to a residential care facility (e.g., LTC Home or assisted living centre) and does not have direct patient contact.</i>						

Scoring Your Self-Assessment

- A** This item is **fully implemented**.
- B** This item is **fully implemented for some** activities, patients, medications and/ or staff in the pharmacy.
- C** This item has been **partially implemented** for some activities, patients, medications and/ or staff in the pharmacy.
- D** This item has been **formally discussed and considered** but not implemented
- E** There has been **no activity** to implement this item
- NA** Not applicable – use this option if the assessment criterion does not apply to your pharmacy

Core Characteristic # 5: Medication and Sharps Disposal							
Medication and sharps disposal is managed safely.							
Self-Assessment Items		A	B	C	D	E	NA
5.1	Patients are provided with information, and containers as applicable, to support safe disposal of medications and sharps.						
5.2	Processes for medication and sharps disposal ensure these items do not re-enter the dispensing stream, are stored securely to prevent diversion, and staff are protected from occupational exposure.						

Core Characteristic # 6: Use of Technology							
Medication system technology is optimized for patient safety.							
Self-Assessment Items		A	B	C	D	E	NA
6.1	Bar coding technology is integrated into all pharmacy dispensing processes to minimize medication selection errors.						
6.2	Pharmacies with complex automated technologies (e.g., robotics) have documented standard operating procedures and designated, trained, registered personnel to manage the technologies and associated software. <i>Select NA if your pharmacy does not use complex automated technologies</i>						

III. Quality Assurance and Risk Management

Core Characteristic # 7: Safety Culture							
Pharmacy team members are aware of safety principles and system-based error prevention strategies.							
Self-Assessment Items		A	B	C	D	E	NA
7.1	During orientation and periodically thereafter, pharmacy team members receive training on system-based strategies and expectations in place to reduce						

	the likelihood of errors (e.g., how and when to conduct independent double checks).						
Core Characteristic # 8: Human Resources							
The staff complement supports the workload required to assure safe patient care.							
Self-Assessment Items		A	B	C	D	E	NA
8.1	Management and pharmacy team members agree that staffing patterns in the pharmacy are adequate to provide safe patient care, including effective back-up plans to provide coverage for team member absences, both planned (e.g., vacation) and unplanned (e.g., illness).						

Core Characteristic # 9: Quality Assurance and Risk Management							
Processes are established for reporting and review of medication incidents occurring in the pharmacy.							
Self-Assessment Items		A	B	C	D	E	NA
9.1	The pharmacy has a documented medication safety/continuous quality improvement plan that describes processes for reporting, documenting, analyzing and taking action on identified incidents, near misses and hazardous situations.						
9.2	Pharmacy team members, including owners and managers, support a culture of safety and open dialogue about incidents, near misses and hazardous situations, including error reduction strategies that are being implemented.						
9.3	Pharmacy team members report medication incidents, including near misses, to provincial/territorial and/or national programs for shared learning.						

IV. High-Risk Processes

Core Characteristic # 10: Identifying and addressing known areas of risk

Pharmacy teams identify and address risks specific to high-risk processes in pharmacy practice, including, but not limited to: opioid agonist therapy, compliance packaging and compounding.

Note that items included in this section reflect selected vulnerabilities and do not represent all risks in these areas.

Self-Assessment Items		A	B	C	D	E	NA
10.1	Standard operating procedure documents have been developed and implemented for high-risk processes, including, but not limited to: opioid agonist therapy, compliance packaging and compounding. Pharmacy teams are referred to NAPRA Standards and provincial/territorial regulatory guidance in developing standard operating procedures.						
10.2	Standard operating procedures for high-risk processes are readily available for quick reference in the areas where these activities occur (e.g., printed/posted). <i>Select A or B if standard operating procedures for high-risk processes have not been developed.</i>						
10.3	All pharmacy team members are required to review the standard operating procedures for high-risk processes annually and whenever changes are made. <i>Select A or B if standard operating procedures for high-risk processes have not been developed.</i>						
10.4	Specific work areas are designated for high-risk activities that reduce the likelihood of interruptions and distractions and meet regulatory requirements where applicable (e.g., NAPRA standards for compounding).						
Opioid Agonist Therapy							
10.5	The pharmacy maintains separate documentation records for patients receiving different opioid agonist therapy (e.g., records for patients receiving methadone are stored separately from patients receiving buprenorphine-naloxone). <i>Select NA if your pharmacy does not provide opioid agonist therapy.</i>						

Core Characteristic # 10: Identifying and addressing known areas of risk

Pharmacy teams identify and address risks specific to high-risk processes in pharmacy practice, including, but not limited to: opioid agonist therapy, compliance packaging and compounding.

Note that items included in this section reflect selected vulnerabilities and do not represent all risks in these areas.

Self-Assessment Items		A	B	C	D	E	NA
10.6	<p>All measured doses of methadone are independently checked against the prescription by a second person*, or there is an objective dose validation process (e.g., weighing, photograph of measured amount), with associated documentation, prior to release to the patient.</p> <p><i>* One of the individuals completing the independent check must be a pharmacist or a registered pharmacy technician, based on regulatory requirements.</i></p> <p><i>Select NA if your pharmacy does not provide methadone.</i></p>						
Compliance Packaging							
10.7	<p>An independent check is completed of the compliance packaging chart or grid before the first package is prepared, and a process is in place to check for and verify any medication changes prior to preparing refill packs.</p> <p><i>Select NA if your pharmacy does not provide compliance packaging.</i></p>						
10.8	<p>Medication selection for compliance packaging is verified either through bar code scanning or an independent human check of the stock containers (i.e., medications are not verified solely by physical appearance).</p> <p><i>Select NA if your pharmacy does not provide compliance packaging.</i></p>						
10.9	<p>The pharmacy has an established process for managing changes to compliance packs that includes immediately quarantining any prepared packs.</p> <p><i>Select NA if your pharmacy does not provide compliance packaging.</i></p>						

Core Characteristic # 10: Identifying and addressing known areas of risk

Pharmacy teams identify and address risks specific to high-risk processes in pharmacy practice, including, but not limited to: opioid agonist therapy, compliance packaging and compounding.

Note that items included in this section reflect selected vulnerabilities and do not represent all risks in these areas.

Self-Assessment Items		A	B	C	D	E	NA
Compounding							
10.10	<p>Compounding is only undertaken after careful consideration of the clinical situation, available literature on the proposed preparation and the knowledge and skills of the pharmacy team.</p> <p><i>Select NA if your pharmacy does not provide compounding services. (Note that in some jurisdictions, pharmacies cannot opt out of compounding services; in this situation, select an applicable response from A to D.)</i></p>						
10.11	<p>Written formulas are developed for all compounded preparations that include the reference source, beyond use date information that is compliant with regulatory standards, and the Drug Identification Number or Chemical Abstract Service (CAS) number to support ingredient verification.</p> <p><i>Select NA if your pharmacy does not provide compounding services. (Note that in some jurisdictions, pharmacies cannot opt out of compounding services; select an applicable response from A to E.)</i></p>						
10.12	<p>New formulas for compounded preparations are independently checked by a second pharmacist prior to first use or as soon as practically possible. (A pharmacy technician can check the calculations within a formula; however, a second pharmacist should review the formula from a therapeutic perspective.)</p> <p><i>Select NA if your pharmacy does not provide compounding services. (Note that in some jurisdictions, pharmacies cannot opt out of compounding services; select an applicable response from A to E.)</i></p>						

Core Characteristic # 10: Identifying and addressing known areas of risk

Pharmacy teams identify and address risks specific to high-risk processes in pharmacy practice, including, but not limited to: opioid agonist therapy, compliance packaging and compounding.

Note that items included in this section reflect selected vulnerabilities and do not represent all risks in these areas.

Self-Assessment Items		A	B	C	D	E	NA
10.13	<p>Commercially available dosage forms are used in compounding whenever possible (e.g., if a tablet can be crushed, this is preferred over calculating and weighing an active pharmaceutical ingredient).</p> <p><i>Select NA if your pharmacy does not provide compounding services. (Note that in some jurisdictions, pharmacies cannot opt out of compounding services; select an applicable response from A to E.)</i></p>						
10.14	<p>Individual ingredients and measured amounts are independently verified <i>before</i> the compound is prepared.</p> <p><i>Select NA if your pharmacy does not provide compounding services. (Note that in some jurisdictions, pharmacies cannot opt out of compounding services; in this situation, select an appropriate response from A to E.)</i></p>						

Scoring Your Self-Assessment

- A** This item is **fully implemented**.
- B** This item is **fully implemented for some** activities, patients, medications and/ or staff in the pharmacy.
- C** This item has been **partially implemented** for some activities, patients, medications and/ or staff in the pharmacy.
- D** This item has been **formally discussed and considered** but not implemented
- E** There has been **no activity** to implement this item
- NA** Not applicable – use this option if the assessment criterion does not apply to your pharmacy

V. High-Alert Medications

Core Characteristic # 11: Anticoagulant Safety

Strategies have been implemented to address risks associated with anticoagulants (blood thinners).

Self-Assessment Items		A	B	C	D	E	NA
11.1	When patients are newly prescribed an anticoagulant, a pharmacist verifies the indication, reassessment date if applicable, and confirms, orders or performs laboratory testing if applicable.						
11.2	Where an anticoagulant is ordered for a specific duration, this information is flagged in the patient's profile (e.g., Clopidogrel 75 mg prescribed for 6 months post-STEMI, then stopped).						
11.3	Pharmacists regularly follow up with patients taking an anticoagulant to monitor efficacy, tolerability (i.e. signs of bleeding), including actual and potential drug interactions, and to promote adherence.						

Core Characteristic # 12: Immunologics Safety

Strategies have been implemented to address risks of dose and dosage form mix-ups with immunologic medications.

Self-Assessment Items		A	B	C	D	E	NA
12.1	<p>Patients are educated about errors that have occurred due to dose and dosage form mix-ups with immunologic medications where similar products are available in different doses, dosage forms and brands and the importance of knowing the specific product they are taking to prevent harm (e.g., tacrolimus immediate/extended release and brand name.</p> <p><i>Select NA if your pharmacy does not dispense immunologic or biosimilar medications.</i></p>						

Core Characteristic # 12: Immunologics Safety

Strategies have been implemented to address risks of dose and dosage form mix-ups with immunologic medications.

Self-Assessment Items		A	B	C	D	E	NA
12.2	<p>Where an immunologic medication is available in different dosage forms (e.g., tacrolimus) or is a biologic/biosimilar product, both the non-proprietary and brand names are used in all communications (e.g., original prescription, order entry, prescription label, verbal communication) to avoid the patient receiving the incorrect product.</p> <p><i>Select NA if your pharmacy does not dispense immunologic or biosimilar medications.</i></p>						
12.3	<p>Alerts are placed in storage areas for immunologic medications to alert pharmacy team members of potential mix-ups (e.g., prednisone 5 mg and 50 mg, tacrolimus immediate and extended release).</p>						

Scoring Your Self-Assessment

- A** This item is **fully implemented**.
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- C** This item has been **partially implemented** for some activities, patients, medications and/ or staff in the pharmacy.
- D** This item has been **formally discussed and considered** but not implemented
- E** There has been **no activity** to implement this item
- NA** Not applicable – use this option if the assessment criterion does not apply to your pharmacy

Core Characteristic # 13: Insulin Safety

Strategies have been implemented to address risks associated with insulin.

Self-Assessment Items		A	B	C	D	E	NA
13.1	Patients who will be taking insulin, and especially a concentrated insulin (e.g., U-200, U-300, U-500), are provided with verbal and written instructions explaining how to administer the specific insulin dose(s) and the importance of knowing the actual dose and concentration of insulin they are receiving, as well as understanding the delivery device (e.g., syringe, insulin pen, or pump).						

Core Characteristic # 14: Methotrexate for Non-Oncologic Indications

Strategies have been implemented to address risks associated with the use of methotrexate for non-oncologic indications.

Self-Assessment Items		A	B	C	D	E	NA
14.1	Patients prescribed methotrexate for non-oncologic indications receive clear verbal and written instructions that specify the day of the week to take their medication, and emphasize the danger of taking extra doses. <i>Select NA if methotrexate for non-oncologic indications, such as rheumatoid arthritis (i.e., weekly dosing) is not dispensed by your pharmacy.</i>						
14.2a	Pharmacy practice management systems have been programmed to default to a weekly rather than daily dosage regimen for subcutaneous, intramuscular, and oral methotrexate. <i>Select NA if methotrexate for non-oncologic indications, such as rheumatoid arthritis (i.e., weekly dosing) is not dispensed by your pharmacy.</i>						
	OR						

Core Characteristic # 14: Methotrexate for Non-Oncologic Indications

Strategies have been implemented to address risks associated with the use of methotrexate for non-oncologic indications.

Self-Assessment Items		A	B	C	D	E	NA
14.2b	An alert has been manually added to the drug file by the pharmacy that pops up with each use (i.e., the alert is drug-specific rather than patient-specific). <i>Select NA if methotrexate for non-oncologic indications, such as rheumatoid arthritis (i.e., weekly dosing) is not dispensed by your pharmacy.</i>						
14.3	The medication quantity dispensed for non-oncologic use of methotrexate is limited to a maximum of 4 weeks at a time. <i>Select NA if methotrexate for non-oncologic indications, such as rheumatoid arthritis (i.e., weekly dosing) is not dispensed by your pharmacy.</i>						

Scoring Your Self-Assessment

- A** This item is **fully implemented**.
- B** This item is **fully implemented for some** activities, patients, medications and/ or staff in the pharmacy.
- C** This item has been **partially implemented** for some activities, patients, medications and/ or staff in the pharmacy.
- D** This item has been **formally discussed and considered** but not implemented
- E** There has been **no activity** to implement this item
- NA** Not applicable – use this option if the assessment criterion does not apply to your pharmacy

Core Characteristic # 15: Opioid Safety

Strategies have been implemented to address risks associated with storing, dispensing, and monitoring of opioids.

Self-Assessment Items		A	B	C	D	E	NA
15.1	Immediate-release and long-acting oral formulations of the same opioid are stored separately in the secure storage area.						
15.2	Morphine and HYDROmorphone are not stored immediately next to each other in the secure storage area.						
15.3	A process is in place to verify that patients are opioid-tolerant before dispensing long-acting opioids (e.g., fentanyl patches) that are indicated only for such patients.						
15.4	Pharmacists counsel patients and/or family caregivers on the appropriate use of opioid medications, and potential side effects, including signs and management of an opioid overdose.						
15.5	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://www.ismp-canada.org/opioid_stewardship/).						
15.6	Naloxone kits are offered to all patients receiving opioid prescriptions and training is provided on when and how to use them, with periodic follow-up (e.g., every 3 months).						

Core Characteristic # 16: Oral Anti-Cancer Drug Safety

Strategies have been implemented to address risks associated with prescribing, dispensing, administering and monitoring of oral anti-cancer drugs.

For a more detailed assessment of oncology-related medication safety strategies, refer to the 2012 ISMP Medication Safety Self-Assessment for Oncology; available from: <https://mssa.ismp-canada.org/oncology>.

Self-Assessment Items		A	B	C	D	E	NA
16.1	<p>For safety, written or faxed orders are requested to confirm telephone orders from prescribers for oral anti-cancer drugs (exceptions: orders to hold or discontinue treatment).</p> <p><i>Select NA if oral anti-cancer drugs are not dispensed by your pharmacy.</i></p>						
16.2	<p>Prescription labels for oral anti-cancer drugs to be taken on specific days explicitly indicate the dates medications are to be taken (e.g., Sept 12, 13, 14, not Day 1, 2, 3, or Days 1-3).</p> <p><i>Select NA if oral anti-cancer drugs are not dispensed by your pharmacy.</i></p>						
16.3	<p>The medication quantity dispensed for intermittent treatment with oral anti-cancer drugs is the exact quantity required for a single cycle of chemotherapy treatment.</p> <p><i>Select NA if oral anti-cancer drugs are not dispensed by your pharmacy.</i></p>						
16.4	<p>Oral anti-cancer drugs are handled in accordance with applicable guidelines and best practices, including use of personal protective equipment as applicable.</p> <p><i>Select NA if oral anti-cancer drugs are not dispensed by your pharmacy.</i></p>						
16.5	<p>Oral anti-cancer drugs requiring manipulation for patient use (e.g., tablet splitting) are prepared using appropriate environmental controls or referred to a pharmacy where such controls are available.</p> <p><i>Select NA if oral anticancer drugs are not dispensed by your pharmacy.</i></p>						

VI. Considerations for Selected Clinical Situations

Core Characteristic # 17: Transitions of Care							
Strategies have been implemented to address the risks associated with transitions of care.							
Self-Assessment Items		A	B	C	D	E	NA
17.1	Pharmacists complete a medication review with patients or family caregivers following hospital discharge to ensure an accurate and up-to-date medication list, identifying and addressing medication changes including therapeutic duplicates.						

Core Characteristic # 18: Pediatric Medication Safety							
Strategies have been implemented to support the safe use of medications in children.							
Self-Assessment Items		A	B	C	D	E	NA
18.1	A scale calibrated to read in kilograms is available and used to weigh children under age 12 to support confirmation of weight-based dosing.						
18.2	A pharmacist verifies the prescriber's calculated dose (based on mg/kg dosing guidelines) for pediatric medication orders and confirms the appropriateness of the dose before the medication is prepared and dispensed.						
18.3	Measuring devices are provided or suggested to caregivers of pediatric patients, and the proper use of the device is demonstrated by a pharmacist or pharmacy technician.						
18.4	Pharmacists use child-friendly resources (e.g., 5 Questions to Ask About My Medicine; available from: https://safemedicationuse.ca/tools_resources/downloads/5QuestionsKids-EN.pdf) when talking about medications with parents and children.						

Core Characteristic # 19: Pregnancy and Medication Safety

Strategies have been implemented to address medications that should be avoided in pregnant patients.

Self-Assessment Items		A	B	C	D	E	NA
19.1	When patients disclose that they are pregnant, this information is documented in the patient profile for drug-disease screening.						
19.2	Patients are warned about medications that pose a significant risk to maternal and/or fetal health (e.g., isotretinoin).						

Core Characteristic # 20: Dose Adjustments

Strategies have been implemented to address dose adjustments to a patient's medication regimen.

Self-Assessment Items		A	B	C	D	E	NA
20.1	Titration/tapering calculations are independently checked and documented by a second team member prior to order entry.						
20.2	For patients prescribed a medication that requires titration/tapering, the pharmacist provides a detailed schedule (e.g., personalized calendar) to support understanding of the dosing schedule.						
20.3	Patients are counselled on interactions between prescription and non-prescription medications, including natural health products, and associated dose adjustments needed to either the prescription or non-prescription regimen, if applicable.						
20.4	Pharmacists consult with patients on chronic medications in the SADMANS group (sulfonylureas, ACE inhibitors, diuretics/direct renin inhibitors, metformin, ARBs, NSAIDs, SGLT2 inhibitors) and provide information on how to avoid dehydration during acute illnesses.						

VII. Evaluation

Core Characteristic # 21: Evaluation

The following brief survey will assist ISMP Canada and CPSI to evaluate this self-assessment program.

After completion of the evaluation, you will be able to finalize and submit your results and compare them to the aggregate response.

Self-Assessment Items		A	B	C	D	E	NA
21.1	How many people helped to complete the assessment? A – 1 B – 2-4 C – 5-7 D – 8-10 E – more than 10						
21.2	Which job roles were involved in completing the assessment? A – Manager/Owner alone B – Staff pharmacist(s) alone C – Registered technician(s) +/- pharmacy assistants alone D – Manager/Owner + staff pharmacist(s) E – The full pharmacy team was involved						
21.3	How long did it take your team to complete the assessment? A – less than 1 hour B – 1-2 hours C – 2-3 hours D – 3-4 hours E – more than 4 hours						
21.4	Do you plan to take any action following completion of the assessment? A – Yes B – Maybe C – No						

Core Characteristic # 21: Evaluation

The following brief survey will assist ISMP Canada and CPSI to evaluate this self-assessment program.

After completion of the evaluation, you will be able to finalize and submit your results and compare them to the aggregate response.

Self-Assessment Items		A	B	C	D	E	NA
21.5	Do you plan to incorporate this assessment into ongoing quality improvement activities for your practice setting? A – Yes, every year B – Yes, at least every 2 years C – Yes, at least every 3 years D – Not sure E – No						
21.6	Please rank the learning and insights gained from this program: A – very useful B – useful C – not useful						
21.7	Would you recommend this assessment program to colleague in another pharmacy? A – Yes B – Maybe C – No						

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Abbreviations Used in this Section:

CPSI – Canadian Patient Safety Institute

ISMPC – Institute for Safe Medication Practices Canada (ISMP Canada)

ISMP US – Institute for Safe Medication Practices, United States

MSSA CAP

ISMP Canada Medication Safety Self-Assessment for Community/Ambulatory Pharmacy
Institute for Safe Medication Practices Canada Medication Safety Self Assessment for
Community/Ambulatory Pharmacy, 2012. For information; see: [https://mssa.ismp-
canada.org/comm-amb-pharmacy](https://mssa.ismp-canada.org/comm-amb-pharmacy)

ISMP US Medication Safety Self-Assessment for Community/Ambulatory Pharmacy
Institute for Safe Medication Practices. ISMP Medication Safety Self Assessment® for
Community/Ambulatory Pharmacy, [Internet] 2017 [cited 2021Feb19]. Available from:
[https://www.ismp.org/sites/default/files/attachments/2018-01/ISMP117C-Pharma%20SA-
FINAL%20020317.pdf](https://www.ismp.org/sites/default/files/attachments/2018-01/ISMP117C-Pharma%20SA-FINAL%20020317.pdf)

MSSA NE Acute

Medication Safety Self-Assessment: Focus on Never Events in Hospitals and Ambulatory Care
Centres

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events-hosp-amb/MSSA_Never_Events_Acute.pdf](https://mssa.ismp-canada.org/data/never-events-hosp-amb/MSSA_Never_Events_Acute.pdf).

MSSA NE LTC

Medication Safety Self-Assessment: Focus on Never Events in Long-Term Care

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ltc/MSSA_Never_Events_LTC.pdf](https://mssa.ismp-canada.org/data/never-events-ltc/MSSA_Never_Events_LTC.pdf)

NAPRA: National Association of Pharmacy Regulatory Authorities

References by Key Element, Core Characteristic and Item Number

Core Characteristic	Item #	Reference Citations
Key Element I: Patient Engagement and Partnership		
Patient engagement	1.1	<ul style="list-style-type: none"> MSSA NE LTC # 2.1 MSSA NE Acute # 2.2 NE MSSA Acute # 2.3 ISMP Canada MSSA CAP # 60 5 Questions to Ask About Your Medications, ISMP Canada [Internet] 2016 [cited 2021Feb19]; available from: https://www.ismp-canada.org/medrec/5questions.htm
	1.2	<ul style="list-style-type: none"> New
Therapeutic Evaluation	2.1	<ul style="list-style-type: none"> New
	2.2	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 2
	2.3	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 4, 5
Key Element II: Medication Storage and Handling		
Inventory System	3.1	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 13 ISMP US MSSA CAP #54, 55 Application of TALLman Lettering for Selected High-Alert Drugs in Canada. ISMP Canada Safety Bulletin [Internet] 2015 [cited 2021Feb19]; 15(10). Available from: https://www.ismp-canada.org/download/safetyBulletins/2015/ISMPCSB2015-10_TALLman.pdf.
Dispensing Process	4.1	<ul style="list-style-type: none"> Strategies for Safer Telephone and Other Verbal Orders in Defined Circumstances. ISMP Canada Safety Bulletin [Internet] 2020 [cited 2021Feb19]; 20(4). Available from: https://www.ismp-canada.org/download/safetyBulletins/2020/ISMPCSB2020-i4-TelephoneOrders.pdf ISMP Canada MSSA CAP #17 ISMP US MSSA CAP # 44, 46 ISMP Canada. Do Not Use Dangerous Abbreviations, Symbols and Dose Designations, [Internet] 2006, reaffirmed 2018[cited 2021Feb19]. Available from: https://www.ismp-canada.org/download/ISMPCanadaListOfDangerousAbbreviations.pdf.
	4.2	<ul style="list-style-type: none"> New
	4.3	<ul style="list-style-type: none"> New
	4.4	<ul style="list-style-type: none"> ISMP US MSSA CAP # 16
Medication and Sharps Disposal	5.1 and 5.2	<ul style="list-style-type: none"> Ontario College of Pharmacists. Proper Disposal of Post-Consumer Medication Returns. Pharmacy Connection [Internet] March 21, 2019 [cited 2021Feb19]. Available from: https://pharmacyconnection.ca/disposal-medication-returns-winter-2019/. Morrison C. Pharmacists called on to create “never event” list for pharmacy. PharmJ [Internet] 4 MAR 2014 cited 2021Feb19]. Available from: https://www.pharmaceutical-journal.com/news-and-analysis/pharmacists-called-on-to-create-never-event-list-for-pharmacy/11135384.article?firstPass=false ISMP US MSSA CAP #168
	6.1	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 28

Core Characteristic	Item #	Reference Citations
Use of Technology		<ul style="list-style-type: none"> ISMP US MSSA CAP # 95
	6.2	<ul style="list-style-type: none"> ISMP US MSSA CAP # 95
Key Element III: Quality Assurance and Risk Management		
Safety Culture	7.1	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 52 ISMP US MSSA CAP # 135 & 139
Human Resources	8.1	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 48, 49 ISMP US MSSA CAP # 118, 119
Quality Assurance and Risk Management	9.1	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 74
	9.2	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 67
	9.3	<ul style="list-style-type: none"> Pharmacy regulatory authority requirements, as applicable ISMP Canada MSSA CAP # 83
Key Element IV: High-Risk Processes		
Identifying and Addressing Known Areas of Risk	10.1	<ul style="list-style-type: none"> Ontario College of Pharmacists. Medication Incidents Associated with Patient Harm in Community Pharmacy. Pharmacy Connection, Vol 8, Issue 2, [Internet] Winter 2018 [cited 2021Feb19]. Available from: https://pharmacyconnection.ca/ismp-multi-incident-analysis-winter-2018/ Multi-Incident Analysis of Community Pharmacy Safety Assessments. ISMP Canada Analysis (planned for publication in 2021)
	10.2	<ul style="list-style-type: none"> New
	10.3	<ul style="list-style-type: none"> New
	10.4	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 37, 38 ISMP US 100, 101
	10.5 and 10.6	<ul style="list-style-type: none"> Lack of Standardized Documentation Contributes to a Mix-up between Methadone and Buprenorphine-Naloxone. ISMP Canada Safety Bulletin [Internet] 2019 [cited 2021Feb19]; 19(4). Available from: https://www.ismp-canada.org/download/safetyBulletins/2019/ISMPCSB2019-i4-Suboxone.pdf.
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	10.9	<ul style="list-style-type: none"> Boucher A, Dhanjal S, Kong JH, Ho, C. Medication Incidents Associated with Patient Harm in Community Pharmacy: A Multi-Incident Analysis. Ontario College of Pharmacists Pharmacy Connection [Internet] Winter 2018 [cited 2021Feb19]. Available from: https://pharmacyconnection.ca/ismp-multi-incident-analysis-winter-2018/. ISMP Canada. Medication Safety Considerations for Compliance Packaging (updated version). Accredited online learning program. [Internet] 2020 [cited 2021Feb19]. Available from: https://elearn.ismp-canada.org/course/index.php?categoryid=7
	10.10	<ul style="list-style-type: none"> NAPRA. Model Standards for Pharmacy compounding of Non-Sterile Preparations. [Internet] 2018 [cited 2021Feb19]. Available from: https://napra.ca/sites/default/files/documents/Mdl_Stnds_Pharmacy_Compounding_Nonsterile_Preparations_March2018_FINAL.pdf
	10.11	<ul style="list-style-type: none"> NAPRA. Model Standards for Pharmacy compounding of Non-Sterile Preparations. [Internet] 2018 [cited 2021Feb19]. Available from: https://napra.ca/sites/default/files/documents/Mdl_Stnds_Pharmacy_Compounding_Nonsterile_Preparations_March2018_FINAL.pdf

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		<ul style="list-style-type: none"> NAPRA. Guidance Document for Pharmacy Compounding of Non-sterile Preparations. [Internet] 2018 [cited 2021Feb19], Item 6.2. Available from: https://napra.ca/sites/default/files/documents/Mdl_Stnds_Pharmacy_Compounding_Nonsterile_Preparations_Guidance_June2018_FINAL.pdf Death Due to Pharmacy Compounding Error Reinforces Need for Safety Focus. ISMP Canada Safety Bulletin, [Internet] 2017 [cited 2021Feb19]; 15(5). Available from: https://www.ismp-canada.org/download/safetyBulletins/2017/ISMPCSB2017-05-Tryptophan.pdf
	10.12	<ul style="list-style-type: none"> Lowering the Risk of Medication Errors: Independent Double Checks. ISMP Canada Safety Bulletin [Internet] 2005 [cited 2021Feb19]; 5(1). Available from: https://www.ismp-canada.org/download/safetyBulletins/ISMPCSB2005-01.pdf
	10.13	<ul style="list-style-type: none"> NAPRA. Guidance Document for Pharmacy Compounding of Non-sterile Preparations. [Internet] 2018 [cited 2021Feb19], Item 6.6. Available from: https://napra.ca/sites/default/files/documents/Mdl_Stnds_Pharmacy_Compounding_Nonsterile_Preparations_Guidance_June2018_FINAL.pdf Death Due to Pharmacy Compounding Error Reinforces Need for Safety Focus. ISMP Canada Safety Bulletin, [Internet] 2017 [cited 2021Feb19]; 15(5). Available from: https://www.ismp-canada.org/download/safetyBulletins/2017/ISMPCSB2017-05-Tryptophan.pdf Boucher A, Dhanjal S, Kong JH, Ho, C. Medication Incidents Associated with Patient Harm in Community Pharmacy: A Multi-Incident Analysis. Ontario College of Pharmacists [Internet] Winter 2018 [cited 2021Feb19]. Available from: https://pharmacyconnection.ca/ismmp-multi-incident-analysis-winter-2018/.
Identifying and Addressing Known Areas of Risk		
Anticoagulant Safety	11.1	<ul style="list-style-type: none"> MSSA NE Acute # 4.5 MSSA NE LTC # 3.3
	11.2	<ul style="list-style-type: none"> New
	11.3	<ul style="list-style-type: none"> What You Need to Know about Your Blood Thinners. SafeMedicationUse.ca Newsletter, [Internet] 2020-03-04 [cited 2021Feb19]. Available from: https://safemedicationuse.ca/newsletter/DOACs.html
Immunologic Safety	12.1	<ul style="list-style-type: none"> Prograf and Advagraf Mix-up. ISMP Canada Safety Bulletin, [Internet] 2009 [cited 2021Feb19]; 9(5). Available from : https://www.ismp-canada.org/download/safetyBulletins/ISMPCSB2009-5-PrografandAdvagrafMix-up.pdf ISMP US. Multifactorial Causes of Tacrolimus Errors: Confusion with Strength/ Formulation, Look-alike Names, Preparation Errors, and More. [Internet] Aug 2017 [cited 2021Feb19]. Available from: https://www.ismp.org/resources/multifactorial-causes-tacrolimus-errors-confusion-strength-formulation-look-alike-names Health Canada's Policy Statement on the Naming of Biologic Drugs. Sidebar in ISMP Canada Safety Bulletin: Palliative Care: A Multi-Incident Analysis. [Internet] 2019 [cited 2021Feb19]; 19(5): Available from: (https://www.ismp-canada.org/download/safetyBulletins/2019/ISMPCSB2019-i5-PalliativeCareMIA.pdf#page=5
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	12.3	<ul style="list-style-type: none"> Prograf and Advagraf Mix-up. ISMP Canada Safety Bulletin [Internet] 2009 [cited 2021Feb19]; 9(5), 2009. Available from: https://www.ismp-canada.org/download/safetyBulletins/ISMPCSB2009-5-PrografandAdvagrafMix-up.pdf ISMP US. Multifactorial Causes of Tacrolimus Errors: Confusion with Strength/ Formulation, Look-alike Names, Preparation Errors, and More. [Internet] Aug 2017 [cited 2021Feb19]. Available from: https://www.ismp.org/resources/multifactorial-causes-tacrolimus-errors-confusion-strength-formulation-look-alike-names
Insulin Safety	13.1	<ul style="list-style-type: none"> Dose Confusion When Switching between Insulin Delivery Devices. ISMP Canada Safety Bulletin [Internet] 2019 [cited 2021Feb19]; 19(9). Available from: https://www.ismp-canada.org/download/safetyBulletins/2019/ISMPCSB2019-i9-Insulin.pdf ISMP Canada/CPSI MSSA NE Acute # 8.1
Methotrexate for Non-Oncologic Indications	14.1	<ul style="list-style-type: none"> Severe Harm and Deaths Associated with Incidents Involving Low-Dose Methotrexate. ISMP Canada Safety Bulletin [Internet] 2015 [cited 2021Feb19]; 15(9). Available from : https://www.ismp-canada.org/download/safetyBulletins/2015/ISMPCSB2015-09_Methotrexate.pdf Incidents of Inadvertent Daily Administration of Methotrexate. ISMP Canada Safety Bulletin [Internet] 2008 [cited 2021Feb19]; 8(2). Available from : https://www.ismp-canada.org/download/safetyBulletins/ISMPCSB2008-02Methotrexate.pdf.
	14.2	<ul style="list-style-type: none"> ISMP Canada/CPSI MSSA NE Acute #12.2 ISMP US MSSA CAP #25
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Opioid Safety	15.1	<ul style="list-style-type: none"> MSSA NE Acute # 13.4
	15.2	<ul style="list-style-type: none"> MSSA NE Acute # 13.6

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	15.4	<ul style="list-style-type: none"> ISMP Canada/CPSI MSSA NE Acute # 13.1 ISMP Canada resources for safe use of opioids for patients and families. Available from: https://www.ismp-canada.org/opioid_stewardship/
	15.5	<ul style="list-style-type: none"> ISMP Canada/CPSI MSSA NE Acute # 13.1 ISMP Canada resources for safe use of opioids for patients and families. Available from: https://www.ismp-canada.org/opioid_stewardship/
	15.6	<ul style="list-style-type: none"> New
	Oral Anti-Cancer Drug Safety	16.1
16.2		<ul style="list-style-type: none"> Canadian Association of Provincial Cancer Agencies. Recommendations for the Safe Use and Handling of Oral Anti-Cancer Drugs(OACDs)in Community Pharmacy: A Pan-Canadian Consensus Guideline. [Internet] 2015 [cited 2021Feb19]. Available from: https://www.cancercareontario.ca/sites/ccocancercare/files/guidelines/full/OACDs_in_Community_Pharmacy.pdf Vu K, Emberly P, Brown E et al. Recommendations for the safe use and handling of oral anticancer drugs in community pharmacy: A pan-Canadian consensus guideline. Can Pharm J (Ott). 2018 Jul-Aug; 151(4): 240–253. Published online 2018 May 16 [cited 2021Feb19]. doi: 10.1177/1715163518767942. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6141941/. ISMP Canada/CPSI MSSA NE Acute # 15.5
16.3		<ul style="list-style-type: none"> ISMP Canada/CPSI MSSA NE # 15.2
16.4		<ul style="list-style-type: none"> ISMP Canada/CPSI MSSA NE # 15.3 ISMP MSSA Oncology 2012 # 75
16.5		<ul style="list-style-type: none"> MSSA NE Acute # 15.4 ISMP MSSA Oncology 2012 # 128b
Key Element VI: Considerations for Selected Clinical Situations		
Transitions of Care	17.1	<ul style="list-style-type: none"> Health Quality Ontario. Medication Safety Quality Standard, 2021. Quality Statements 3 and 4. Available from: https://www.hqontario.ca/Portals/0/documents/evidence/quality-standards/qs-medication-safety-quality-standard-en.pdf World Health Organization, Technical Report on Medication Safety in High-Risk Situations [Internet] 2019 [cited 2021Feb19]: Key steps for ensuring medication safety. Available from: https://apps.who.int/iris/rest/bitstreams/1232860/retrieve Gaps in Interconnectivity of a Hospital's Electronic Systems Create Vulnerabilities at Transitions of Care. ISMP Canada Safety Bulletin [Internet] 2019 [cited 2021Feb19]; 19(2). Available from: https://www.ismp-

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Pediatric Medication Safety	18.1	<ul style="list-style-type: none"> Weight-Based Medication Dose Errors. ISMP Canada Safety Bulletin [Internet] 2016 [cited 2021Feb19]; 16 (9). Available from: https://www.ismp-canada.org/download/safetyBulletins/2016/ISMPCSB2016-09-WeightBasedDoseErrors.pdf
	18.2	<ul style="list-style-type: none"> ISMP Canada MSSA for Hospitals Canadian Version III, # 19.5.
	18.3	<ul style="list-style-type: none"> ISMP Canada MSSA CAP # 63
	18.4	<ul style="list-style-type: none"> New
Pregnancy and Medication Safety	19.1 and 19.2	<ul style="list-style-type: none"> Morrison C. Pharmacists called on to create “never event” list for pharmacy. The Pharmaceutical Journal [Internet] 14Mar2014. [cited 2021Feb19] Available from: https://www.pharmaceutical-journal.com/news-and-analysis/pharmacists-called-on-to-create-never-event-list-for-pharmacy/11135384.article?firstPass=false
Dose Adjustments	20.1 and 20.2	<ul style="list-style-type: none"> Chen A, Liang S, Ho C. Medication Incidents Involving Drug Tapering in Community Pharmacy: A multi-incident analysis. Ontario College of Pharmacists. Pharmacy Connection [Internet] Fall 2014 [cited 2021Feb19]. Available from: https://www.ismp-canada.org/download/PharmacyConnection/PC2014-Fall_DrugTapering.pdf.
	20.3	<ul style="list-style-type: none"> Deaths Associated with Medication Incidents Occurring Outside Regulated Healthcare Facilities. ISMP Canada Safety Bulletin [Internet] 2014 [cited 2021Feb19]; 14(2). Available from: https://www.ismp-canada.org/download/safetyBulletins/2014/ISMPCSB2014-2_DeathsAssociatedwithMedicationIncidents.pdf. Acetaminophen – Harm from Overdose Can Be Prevented. SafeMedicationUse.ca Newsletter [Internet] 2014-02-06 [cited 2021Feb19]. Available from: https://safemedicationuse.ca/newsletter/newsletter_Acetaminophen.html Preventing harm from drug-food interactions. SafeMedicationUse.ca Newsletter [Internet] 2014-06-09 [cited 2021Feb19]. Available from: https://safemedicationuse.ca/newsletter/newsletter_DrugFoodInteractions.html
	20.4	<ul style="list-style-type: none"> Diabetes Canada. Clinical Practice Guidelines [Internet] 2018 [cited 2021Feb19], Appendix 8. Available from: http://guidelines.diabetes.ca/cpg/appendices/appendix8.