2 Neighbourhood Pharmacies Put Patients First
3 Pharmacy Patient Safety Program Overview & This Resource Book
4 Patient Safety Awareness Timeline
5 Why Do Errors Happen?
7 What Defines a Patient Safety Culture?
9 Guiding Principles in Patient Safety
11 Patient Safety Culture Maturity
13 Assessing Current Safety Culture
15 Communicating Results of Assessment & Action Plan
16 Education
20 Operations Management & Best Practices
23 Operations Management - Interventions
25 Managing Objections to Change
26 Tactics to Demonstrate Commitment to Pharmacy Patient Safety
28 Appendix I - Patient Safety Challenges
29 Appendix II - Questions to Ask About Your Medications
31 Appendix III - Opioid Pain Medicines
In Canadian pharmacy’s, we work diligently to put patients first in everything we do. Patient well-being and safety lie at the heart of our business.

Media coverage and public opinion surveys have highlighted what Canadians expect from pharmacy and have prompted us to re-focus on continuously improving pharmacy patient safety. Working to prevent adverse drug reactions is a core strategy in our policy document on Canada’s healthcare sustainability challenges (‘9,000 Points of Care: Improving Access to Affordable Healthcare’). We believe it is equally important, in terms of maintaining public trust, by demonstrating our commitment to improving patient safety through action: this Pharmacy Patient Safety Program Resource Book reflects that commitment.

In March 2015, the Neighbourhood Pharmacy Association of Canada (Neighbourhood Pharmacies) convened a cross-section of pharmacy industry personnel to explore current challenges and opportunities in delivering on the promise of enhanced patient safety and care. The work continued through 2015 in meetings with pharmacists and pharmacy technicians, patients and patient safety organizations. To confirm the applicability and importance of our work, we consulted nationally with external stakeholders, and, with their feedback, produced the Pharmacy Patient Safety Guiding Principles and Operational Best Practices, both of which form part of this Resource Book.

Neighbourhood Pharmacies gratefully acknowledges the expert contributions of the many dedicated professionals whose work enhanced the value of this Resource Book. We are particularly appreciative of the input of the Institute for Safe Medication Practices Canada (ISMP Canada) and the Canadian Patient Safety Institute (CPSI) for their expert review of its contents and for the use of their materials in pharmacies.

This Resource Book is not intended to be a one-size-fits-all solution, nor an exhaustive guide to pharmacy patient safety. It is intended to complement the work of regulators and members, and to provide guidance and concrete recommendations on actions that can be taken now, and applied flexibly, to reduce potential patient safety risks.

This Patient Safety Resource Book highlights our industry’s commitment to patients and our relentless focus on improving their experience in our pharmacies every day.

Thank you to those who shared your experience, and to all of you who contribute to improved pharmacy safety. We hope this Resource Book will help us work together to enhance patient safety and care.

Justin J. Bates
Chief Executive Officer
Neighbourhood Pharmacy Association of Canada
Every day, the members of Canada’s broader pharmacy community aspire to a single high standard of practice: excellence in patient care and continuous improvement in patient safety.

This requires a fundamental commitment to a culture of patient safety at all levels of a company (or other organization). This includes the shared values, beliefs and assumptions, and is influenced by the organization’s policies, structures, resources and supports. These factors, combined with individual responsibility and accountability, affect the climate that promotes patient safety.

Companies, and the individuals within them, will be at different stages of maturity in their patient safety culture and may therefore need different tools to enhance their internal patient safety programs.

This Resource Book provides the background of the patient safety movement, defines the attributes of a patient safety culture, and offers tools for assessment, communication and education, and operations.
The patient safety movement has been active in Canada for more than 10 years. Research to date (focused mostly on patients and institutional settings) has demonstrated that adverse events do occur, but also that adverse events are preventable. Since approximately 75 per cent of prescription drugs dispensed in Canada are delivered through pharmacy, this highly accessible healthcare service has an important role to play in enhancing patient safety, and benefits from the proven tools available.

Below is a timeline of selected key dates and events in the development of patient safety awareness in Canada.

1999
‘To Err is Human: Building a Safer Health System’ was published by the Institute of Medicine (now known as the National Academy of Medicine). It reported that between 44,000 and 98,000 deaths per year in the United States were due to preventable medical errors - almost as many as AIDS, breast cancer and car accidents combined.

2000
The Institute for Safe Medication Practices Canada (ISMP Canada) was established. An independent, national not-for-profit organization committed to the advancement of medication safety in all healthcare settings, ISMP Canada aims to identify risks in medication use systems, to recommend optimal system safeguards, and to advance safe medication practices.

ISMP Canada does this through reviewing and analyzing medication incidents and near-miss reports using recognized methods, and generating recommendations to prevent recurrence. The organization also collaborates with numerous stakeholders to enhance pharmaceutical product packaging and labelling. It shares knowledge with healthcare providers through medication safety educational programs. ISMP U.S. was a pioneer in medication safety as early as 1975.

2002

2003
Health Canada established the Canadian Patient Safety Institute (CPSI), one of the recommendations from the 2002 ‘Building a Safer System’ report. CPSI helps organizations improve patient safety and quality initiatives, coordinates patient safety efforts, launches new ideas, invests in promising developments, and highlights patient safety issues - primarily in institutional and home care settings.

2004
‘The Canadian Adverse Events Study’ was published in the Canadian Medical Association Journal. Among its key findings on adults admitted to hospitals in Canada:
• 1 in 13 patients encounter an adverse event;
• 1 in 9 are potentially exposed to wrong medication or dosage;
• Between 9,000 and 24,000 patient deaths occur annually due to adverse events;
• 37 per cent of these adverse events are highly preventable - of these, 24 per cent are due to medication errors; and,
• Most common adverse events in hospitals are linked to surgery, infection control, and medication.

2010
The SafetyNET-Rx medication error reporting, tracking and analysis system was introduced in Nova Scotia. The system aims to avoid, improve and prevent adverse patient outcomes arising from quality-related events.

---

1 ‘To Err is Human: Building a Safer Health System’. Retrieved online at http://www.nap.edu/books/0309068371/html
2 ‘The Canadian Adverse Events Study; the incidence of adverse events among hospital patients in Canada’. Retrieved online at http://www.cmaj.ca/content/170/7/678.full
Errors happen mainly due to human factors and system factors.

**INATTENTIONAL BLINDNESS**

Failure to see an object which is clearly in view because attention is not focused on it and later cannot explain the lapse.

<table>
<thead>
<tr>
<th>Conspicuity (sensory &amp; cognitive)</th>
<th>Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental workload &amp; task interference</td>
<td>Capacity</td>
</tr>
</tbody>
</table>

The most common cause of **human errors**, inattentional blindness, occurs when an individual inexplicably fails to recognize an unexpected stimulus (even a large or conspicuous stimulus) that's in plain sight. This is not a problem of vision, but of attention.

Sometimes called perceptual blindness, inattentional blindness explains:

- How magicians perform successful illusions;
- Why emergency vehicles are painted distinctive colours and have lights and sirens;
- Why we can only pay attention to one conversation at a time at a party;
- Why we can often read jumbled words, as long as the first and last letters are correct;
- Why we can drive between work and home without remembering the details of the trip; and,
- How experienced pharmacy professionals can miss computer warnings of serious drug interactions.

The most common cause of **human errors**, inattentional blindness, occurs when an individual inexplicably fails to recognize an unexpected stimulus (even a large or conspicuous stimulus) that's in plain sight. This is not a problem of vision, but of attention.

Sometimes called perceptual blindness, inattentional blindness explains:

- How magicians perform successful illusions;
- Why emergency vehicles are painted distinctive colours and have lights and sirens;
- Why we can only pay attention to one conversation at a time at a party;
- Why we can often read jumbled words, as long as the first and last letters are correct;
- Why we can drive between work and home without remembering the details of the trip; and,
- How experienced pharmacy professionals can miss computer warnings of serious drug interactions.
Why Do Errors Happen?

System factors, which account for the majority of errors, occur due to faults or gaps in processes, rather than due to human beings. Enhancing system safety is easier than managing human factors, and involves the need to review each error or adverse event (as well as ‘near misses’) to identify and resolve the system faults or gaps that enable errors to occur.

The best systems recognize the potential for human factors to lead to errors, and create an environment that helps mitigate risk from human factors and prevent errors.

System improvements contributing to error reduction include the following examples:

- Having a clean, well-lit, uncluttered workspace;
- Confirming complete and current information on all patient profiles;
- Limiting interruptions (e.g. telephone);
- Scheduling adequate staffing and workload management;
- Ensuring properly trained staff working to the maximum of their scope;
- Using effective patient counselling methods (e.g. show and tell; asking the patient what the doctor told them about the medication);
- Electronic prescribing to avoid written or transcription errors;
- Conducting medication reviews to identify and resolve drug therapy problems;
- Managing inventory (e.g. separating topical from oral medications; identifying high risk medication; drawing attention to different strengths of the same medication);
- Having clear communications between shift changes; and,
- Ensuring all adverse events and near misses are documented and reviewed to identify system errors.
At first glance, nuclear power and commercial aviation may not appear to have much in common with pharmacy. Yet each of these industries recognize the critical importance of establishing and maintaining a culture or climate of safety at the core of everything they do. They all share a common approach that transcends the differing details of daily, frontline safety practices.

Stated another way, safety culture is not confined to a set of industry- or job-specific tasks or procedures, but instead embraces a fundamental business discipline with both organizational and individual roles, responsibilities and characteristics.

Safety culture also acknowledges that, as with any human endeavour, perfection in safety is not achievable, but that commitment to continuous improvement is the only acceptable substitute and the only path forward. In pharmacy, as in nuclear power and commercial aviation, people’s lives and well-being are at stake all day, every day.

While the language used to describe or define the common attributes of a safety culture differs between industries, it typically includes:

• leadership;
• two-way communication;
• employee involvement;
• learning culture; and,
• a focus on fixing rather than blaming.

Looking specifically at healthcare, CPSI’s ‘Safety Competencies’ document states (emphasis added):

‘A culture of patient safety arises from attitudes, activities, and enduring ethical values that are conducive to the safe delivery of care. More specifically, it refers to the commitment of healthcare practitioners...and organizations to minimize patient harm, promote the well-being of patients and healthcare providers, reduce the likelihood of adverse events, and communicate safety concerns - while at the same time learning from close calls and other events.’

Importantly, commitment to patient safety is required from both individual healthcare practitioners and from their organizations.

What Defines a Patient Safety Culture?

According to organizational safety consultant Dr. Hal Resnick, a culture of safety is both the right thing to do and is also good for business, leading to increased productivity, enhanced product quality and reliability, increased innovation, continuous improvement, and enhanced employee engagement.

Specific elements of a patient safety culture (according to the CPSI) include:

- **INFORMED CULTURE**: Relevant safety information is collected, analyzed and actively disseminated;

- **REPORTING CULTURE**: An atmosphere is cultivated where people have the confidence and feel safe to report safety concerns without fear of blame, and trust that concerns will be acted upon;

- **LEARNING CULTURE**: Preventable patient safety incidents are seen as opportunities for learning, and changes are made as a result;

- **JUST CULTURE**: The importance of fairly balancing an understanding system failure with professional accountability is managed; and,

- **FLEXIBLE CULTURE**: People are capable of adapting effectively to changing demands.

Pharmacy’s personnel and patients described guiding principles in patient safety in the following section.

---

The following guiding principles were developed collaboratively by pharmacy professionals, based on their organizations’ safety practices and their own experience and professional judgment.

These guiding principles are not meant to supersede any existing policies, procedures, standards, or other regulatory instruments; rather, they are intended as a complement to these documents. These principles are not independent, but overlap in many ways to form a comprehensive model intended to guide professionals practising in community pharmacies, and to inform stakeholders (regulators, other healthcare professionals, and the public) about the principles they can expect to be upheld.

Seven key themes were identified and are depicted below:
1. Patient-Centred Care:
• We are engaged with each and every one of our patients and give them our undivided attention.
• We take the time to collaborate with our patient, the family, and other healthcare providers to support the patient in optimizing his or her health.
• We support patient engagement: helping patients take a more active interest in their own self-care and disease management.
• We believe in patient empowerment: the right of patients to make their own decisions in relation to their health.

2. Diligent and Consistent in Practice:
• We are diligent in our practice. Through persistent and sustained effort we take the time to ask the right questions and understand the needs of each patient to offer the services each needs to achieve his or her health goals.
• We remain current with the latest knowledge to practice to the fullest extent of our scope with the goal of providing the best care to every patient. We use our clinical judgment to make decisions to advance the health outcomes of each patient.
• We are consistent in our practice. We recognize the consistent application of standardized processes and systems designed for safety (including staff training and workflow management), supports a system for safer patient care.

3. Build Relationships:
• We build trusting professional relationships with our patients by being personable, professional, available, accessible, respectful and discreet.

4. Accountability in a Non-Punitive Culture:
• We accept responsibility for all aspects of pharmaceutical care, including errors.
• When an error occurs, our immediate concern is the safety of the patient. We assess the situation to determine the best course of action to care for and support the patient.
• We recognize that errors are not intentional. We support a non-punitive culture to encourage all staff to participate actively in documenting errors.
• We understand a combination of human and system factors can contribute to errors, and are dedicated to investigating and analyzing each error to prevent its recurrence.

5. Integrity:
• We believe in honesty and integrity to practice at high levels of professionalism at all times.
• We believe in doing the right thing and putting the needs of the patient above the financial goals of the pharmacy.
• We demonstrate leadership in the right behaviours to drive the culture of patient safety throughout our organizations.

6. Transparency in Communications:
• We are committed to speaking up when patient safety might be compromised.
• We believe in honest, transparent and open communications with pharmacy team members, patients, their families, and other healthcare providers to promote understanding and enhance patient safety.
• We believe in full disclosure when errors occur. We understand an atmosphere of openness and honesty leads to a culture of quality and safety.

7. Continuous Quality Improvement:
• We are committed to continuous quality improvement. We understand that documenting, analyzing and sharing the lessons learned from all errors is fundamental in error prevention.
• We use proven tools and frameworks to identify areas for system improvement.
• We collaborate with patient safety organizations to incorporate best practices in patient safety.
Patient Safety Culture Maturity

As a company or other organization’s safety culture matures, it progresses through five distinct phases. Leaders can assess their organization’s policies and systems against universal benchmarks:

1. **Pathological**: No systems are in place to promote a positive safety culture.

2. **Reactive**: Systems are ad-hoc, developed only in response to occurrences and regulatory/accreditation requirements.

3. **Calculative**: Systematic approach to patient safety exists, but implementation is incomplete; inquiry into events is limited and event-specific.

4. **Proactive**: Comprehensive approach to promoting a positive safety culture is used; evidence-based intervention is implemented across the organization.

5. **Generative**: Creation and maintenance of a positive safety culture are mission-critical; organization evaluates the effectiveness of interventions, extracts lessons from failures and successes, and takes meaningful action to improve.

**Leadership Commitment**

Enhancing the culture of safety in any business in any industry requires sustained commitment from leaders throughout the organization. A complete pharmacy patient safety program must include measurements, metrics and milestones. As the general management maxim states, *what matters gets measured.*

The following five steps (per Resnick) provide a more structured approach to assessing current safety culture and implementing change:

1. **Commitment**: Senior management must first make a collective commitment to the development of a safety culture, and express that commitment as a set of expectations and measurable outcomes.

2. **Assessment**: A comprehensive organizational assessment of the current safety culture (typically three to four months) is undertaken, engaging a significant number of employees and actively soliciting input from the entire workforce. The assessment uses a combination of historical data and reports, anecdotal evidence and stories, and employee inputs.

3. **Action Plan**: Once the assessment has been completed, the gap between the current state and the desired state can be determined, leading to the creation of an action plan. The plan should be completed within several weeks, although implementation may extend over several years.

4. **Endorsement**: Before implementation can be considered, the plan must be shared and endorsed first by the senior management team and then by multiple management levels throughout the organization. This endorsement is a commitment to provide the effort and resources required to ensure its success.

5. **Implementation (in three parts):**
   - The first stage of implementation is to communicate the endorsed plan—including specific behavioural expectations—to all employees throughout the organization. (It must not be seen as ‘to-down.’) Employees should immediately be held responsible and accountable for demonstrating the desired behaviours;
   - Long-term implementation can now begin, with senior management monitoring and providing feedback. The process will not be completed until the safety culture becomes a natural part of the organization, something that might extend over several years; and,
   - Finally, to ensure that the safety culture remains an integral part of the business, continuous improvement is a necessary ongoing process.

---

5 Retrieved online at http://www.longwoods.com/content/19604

continued...
It is important to communicate to employees the organization’s intent to enhance patient safety culture:

- It expresses leadership commitment to patient safety improvement to all staff (although communication must be followed by action);
- It engages employees in a workplace culture that puts patients first;
- It clarifies expectations, roles, behaviours, and anticipated outcomes for everyone in the organization;
- It demonstrates leadership of pharmacy organizations in enhancing patient safety;
- It elevates the perception of pharmacy organizations with stakeholders; and,
- It provides a platform for advocacy.

**Communicating Commitment**

Organizations may find the following key messages useful to support their communication efforts with employees:

- Patient safety is important for our organization. While we have systems and procedures in place to prevent errors, there is always more we can do.
- The patient safety movement has been active in Canada for more than 10 years, and up to now has been focused primarily on institutional practice.
- Our next steps are to better understand our overall patient safety culture. We will assess where we are today to determine what we need to do better in the future.
- Patient safety is everyone’s responsibility. Our role is to support you in delivering care safely through the development and implementation of systems, policies and procedures to reduce the risk of harm.
- Your role with your team is to remain current in practice to meet your professional obligations, and to suggest opportunities to continue to improve our systems to keep patients safe.
- Our combined goal is to work together to continue to improve our systems to keep patients safe.
A pharmacy’s patient safety culture depends on its employees demonstrating an attitude of curiosity to find out why adverse events occur, trust that concerns raised will be acted upon, and acceptance of personal responsibility and accountability for patient safety.

But, how does an employer assess its employees’ thoughts, perceptions and values?

Many employers use employee surveys as tools to evaluate employees and their understanding of patient safety.

The purpose of assessment tools is to identify strengths and opportunities in the current patient safety system as a baseline for determining the steps to take for improvement. Additionally, an assessment can help identify leaders in patient safety across the organization who can be resources and mentors for others.

This Resource Book identifies and evaluates the strengths and weaknesses of three such tools that may be useful for employers in assessing the patient safety culture in their organizations.

continued...
<table>
<thead>
<tr>
<th>Assessment Tool</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
</table>
| Community Pharmacy Survey on Patient Safety Culture | • Psychometric tool with statistical reliability  
• Freely available for all to use  
• Comes with a “how to” guide with details on administering and evaluating surveys, along with timelines  
• Designed specifically for community pharmacy  
• Evaluates 11 patient safety dimensions | • Meant to evaluate patient safety culture in individual pharmacies  
• Must have at least 5 employees at the pharmacy  
• Requires strong organizational commitment and resources to execute  
• May be administered by an outside vendor which could increase costs  
• May not be useful in evaluating organization leaders |
| Manchester Patient Safety Assessment                | • Evaluates 8 patient safety dimensions  
• Could be administered at each site by pharmacy manager or operations manager  
• Helps to identify and reinforce patient safety culture maturity levels and develop plans at pharmacy level to get there | • Meant to be assessed through facilitated discussion with 10-12 people which may increase costs  
• May not necessarily engage all staff – staff may be uncomfortable speaking up  
• May not be useful in evaluating organization leaders |
| Patient Safety Culture Improvement Tool             | • Evaluates 9 patient safety dimensions  
• Assesses organizational practices, systems & processes  
• Can be used at organizational or store level  
• Can be used to quickly develop strategic plan to advance culture to next level of maturity | • Not validated psychometrically  
• May not be a comprehensive assessment  
• Can be conducted at the leadership level to gauge culture across the organization |
Communicating the results of an assessment will help staff understand areas of excellence as well as areas for improvement. This can be followed by identifying and communicating the next steps for improvement, which further demonstrates the organization’s commitment to a culture of patient safety and understanding of the current culture of safety.

It’s also important to determine the best ways to address the opportunities and challenges identified by the assessment. Sometimes only a revision or communication of patient safety policies and procedures is required. In other cases, (for example, if staff training and skills are lacking) adding additional patient safety training to the new employee orientation process may help. In some circumstances, however, the initial results of a patient safety culture assessment may call for further investigation.

In all cases, communications must be clear, timely, and followed by visible actions. Asking staff to provide candid feedback on their thoughts, perceptions, and values on issues important to them creates an expectation that action will be taken to address opportunities and challenges brought forward. A lack of action leads staff to conclude that their input was not valued, that the initiative does not have value, and any further attempts to engage staff as part of the initiative will be met with skepticism and resistance.

Involving staff in creating solutions as this fosters greater adoption and implementation. Working collaboratively with employees will help produce realistic action plans and time frames, and identify any support or tools required for success. It may also be beneficial to appoint a patient safety leader to help the team work through the action plan.

Anticipate and provide a forum to manage objections. Not every employee will embrace new ways of doing things, but anticipating and preparing clear explanations for common objections will help all employees develop team alignment with goals - a key to success in this program.

Check in periodically with employees to receive feedback on what is working, what isn’t, and to deliver additional support to overcome challenges.

Several potential opportunities in patient safety programs, including thought-starter questions, are presented in Appendix I.
Perhaps surprisingly, many healthcare professionals receive no formal patient safety training during their professional schooling.

While we are all aware of the risks associated with adverse events, there is less understanding about the human and systems factors that lead to errors, so when an error happens, often disproportionate energy is expended on ‘blame and shame’ responses rather than identifying and analyzing the underlying causes. This response also perpetuates a culture of fear, discouraging staff from identifying, reporting and analyzing adverse events, something that is essential to both learning and continuous quality improvement.

Another unintended consequence of the typical response to an adverse event is the creation of a ‘second victim’: the healthcare professional who made the error. It is important to remember that healthcare professionals don’t come to work planning to harm a patient. These individuals suffer significant emotional trauma, sometimes with tragic consequences.

While people used to assume that if a healthcare worker cared enough, worked hard enough, and was well trained enough, errors would be avoided; current research proves this false.

Error prevention and management strategies are effective tools that organizations can provide their employees to help keep patients safe.

**Training**

Unlike fields like commercial aviation, where safety training and assessment are continual, healthcare safety training is still in the early stages, with organizations like CPSI and ISMP Canada leading the way. However, useful resources are available to support pharmacy staff.

**Learning Plan**

Learning plans may be different across companies, depending on the patient safety culture maturity, the provincial requirements for error management and prevention, and the needs of the individual organization.

A helpful place to start is the World Health Organization’s ‘Patient Safety Curriculum Guide Multi-Professional Edition (2011)’. Part A is a teacher’s guide, and Part B is a curriculum guide broken into 11 topics along with learning materials. While this guide is not specific to pharmacists, it does cover foundational material applicable to all health professionals.
# Education

## Learning Materials
Many resources are available online to help create a learning plan. These include:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name of Resource</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Introductory Course on Patient Safety - online PDF, PPT, Audio &amp; Video. <strong>Free</strong></td>
<td><a href="http://www.who.int/patientsafety/research/online_course/en/">Link</a></td>
</tr>
<tr>
<td></td>
<td>Learning From Error – online Workbook and Video. <strong>Free</strong></td>
<td><a href="http://www.who.int/patientsafety/education/vincristine_download/en/">Link</a></td>
</tr>
<tr>
<td>Canadian Patient Safety Institute</td>
<td>The Safety Competencies - PDF includes 20 key competencies, 140 enabling competencies, 37 knowledge elements, 34 practical skills, and 23 essential attitudes (2009). <strong>Free</strong></td>
<td><a href="http://www.patientsafetyinstitute.ca/en/tools/Resources/safetyCompetencies/Pages/default.aspx">Link</a></td>
</tr>
<tr>
<td></td>
<td>Resources and Recommended Readings - comprehensive online collection of links to patient safety material. <strong>Free</strong></td>
<td><a href="http://www.patientsafetyinstitute.ca/en/tools/Resources/PatientSafetyIncidentManagementToolkit/Pages/Resources-and-Recommended-Readings.aspx">Link</a></td>
</tr>
<tr>
<td></td>
<td>Canadian Patient Safety Officer Course - offered in-person or online. <strong>Fee</strong></td>
<td><a href="http://www.patientsafetyinstitute.ca/en/education/psoc/Pages/default.aspx">Link</a></td>
</tr>
<tr>
<td></td>
<td>Patient Safety Education Program – offered in-person. <strong>Fee</strong></td>
<td><a href="http://www.patientsafetyinstitute.ca/en/education/PatientSafetyEducationProgram/PatientSafetyTrainer/Pages/default.aspx">Link</a></td>
</tr>
</tbody>
</table>

*continued...*
<table>
<thead>
<tr>
<th>Organization</th>
<th>Name of Resource</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Education Programs (multiple). Fee</td>
<td><a href="https://www.ismpcanada.org/education/">https://www.ismpcanada.org/education/</a></td>
</tr>
<tr>
<td>University of Calgary Cumming School of Medicine, Health Quality Council of Alberta, W21C</td>
<td>Certificate Course in Patient Safety and Quality Management. Fee</td>
<td><a href="http://www.patientsafetycourse.ca/">http://www.patientsafetycourse.ca/</a></td>
</tr>
</tbody>
</table>

continued...
### Education

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name of Resource</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institute for Healthcare Improvement (U.S.)</td>
<td>Patient Safety Resources. Free</td>
<td><a href="http://www.ihi.org/Topics/PatientSafety/Pages/default.aspx">http://www.ihi.org/Topics/PatientSafety/Pages/default.aspx</a></td>
</tr>
<tr>
<td>Purdue College of Pharmacy Office of Continuing Education (U.S.)</td>
<td>Medication Safety Courses. Fee</td>
<td><a href="https://ce.pharmacy.purdue.edu/content/medication-safety">https://ce.pharmacy.purdue.edu/content/medication-safety</a></td>
</tr>
</tbody>
</table>

NOTE: Most continuing education programs in patient safety were sourced from the United States. Although Medication Errors and Prevention Strategies isn’t current, it includes many practical strategies that can be adapted to enhance medication error prevention.

---

Operational Best Practices

In addition to the external patient safety system educational tools and resources described in the previous section, Neighbourhood Pharmacies collaborated with pharmacy professionals to develop the following Operational Best Practices, based on their organizations’ practices, as well as their own experience and professional judgement.

**Working with the Patient:**
- Verify the identity of the patient by asking for his or her health card at drop off and pick up - the same way verification is done at physician offices, medical laboratories, and other public healthcare facilities.
- Verify the identity of the patient at drop off and pick up by asking the patient to respond to verification questions (i.e., ‘What is your name? What is your address? What is your date of birth?’).
- Highlight similar patient names in the dispensing computer and add distinguishing information.
- Obtain weights for all pediatric patients.
- Determine the indication for the medication (i.e., ‘What did your doctor tell you about the medication and why did s/he want you to take it?’).
- Ask open-ended questions during counselling to check for understanding.
- Counsel on every prescription (including refills) as required by standards of practice.
- Suggest an annual medication review to confirm what the patient is taking and to identify any possible drug interactions, as well as medications no longer being taken.
- Follow up with each patient in person or via telephone to assess whether or not they are experiencing any adverse effects.
- Empower patients with the tools they need to ask basic questions of their healthcare professionals.
- Encourage patients to take ownership of their health and to know what medications they are taking.
- Encourage patients to contact the pharmacy with any questions or concerns.

**Inventory Management:**
- Check expiry dates of inventory on a regular basis and pull inventory with expiry dates of three months or less.
- Separate dosage forms (e.g., topical versus oral; solid versus liquid).
- Flag “lookalike, sound alike” medications (e.g., Losec and Lasix), medications prone to dosing errors (e.g., codeine syrup), and medications with a high degree of risk (e.g., methotrexate, methadone) on shelves, as well as in the computerized inventory management system.
- When compounding, check the weight of all ingredients or use a scale that can print off the weight for verification purposes.

continued...
Workflow Management:

- Communicate clearly with all staff (i.e., use a communication book to ensure important patient-related information is shared).
- Incorporate checklists with the main safety elements being reviewed and updated on a frequent basis.
- Record clear, detailed notes or special instructions on the patient profile for important patient-related documentation.
- Use a basket system to keep prescriptions for one patient together.
- Ensure the workspace is clean, uncluttered and organized to support patient safety (i.e., workstations optimized for both the function taking place and for the person performing the function).
- Ensure timely documentation of medication changes for patients receiving blister packs.
- Minimize distractions.
- When possible, ensure each prescription filled is reviewed by another person to ensure a second set of eyes.
- Double-check the medication profile and, where available, the provincial drug information system to identify potential drug interactions.
- Check all patient allergies, drug utilization reviews, and interactions.
- Ensure easy access to essential references.
- Double-check the drug identification number and circle/write down the last three digits.
- Incorporate standardized checks for all prescriptions, such as a triple check (i.e., when pulling inventory, when filling, when counselling).
- Document lot number and expiry date when filling all prescriptions (either electronically or on the hard copy which can then be scanned into the computer).
- Implement computerized workflow tools to:
  - Track where prescriptions are in the filling process;
  - Identify each person involved in the filling process;
  - Allow for the original prescription to be scanned and attached to the electronic patient profile (both filled and logged prescriptions); and,
  - Fill prescriptions in advance using auto-fill functions to manage workload better.
- Use clear bags at the prescription pickup counter to facilitate counselling and the ‘show and tell’ (final check) with the patient.
- ‘Train the patient’ by managing his or her expectations and educating him/her about the prescription-filling process.

Human Resources Management:

- Ensure all pharmacy staff are consistently trained and oriented to understand and abide by:
  - The importance of patient safety;
  - Their individual roles and responsibilities of all staff within the pharmacy; and,
  - The policies and procedures in the pharmacy.
Operations Management and Best Practices

- Have clearly defined and specific job descriptions to maximize the contributions of all staff.
- Have specific protocols in place to deal with higher-risk situations (e.g., injections).
- Employ and utilize regulated pharmacy technicians to their full scope of practice to free up pharmacist for clinical functions (not technical functions).
- Review provincial standards of practice and standards of operation on a regular basis to ensure they are reflected in daily practice.
- Develop training, education, and/or resources to guide pharmacists in how to deal with patients who have experienced an error.
- Ensure there is adequate staffing and proper support to manage the workload.
- Implement policies and processes that avoid creating a ‘second victim’ by supporting healthcare professionals responsible for any errors.
- Provide regular safety training to all staff and evaluate using an assessment form or other record.
- Use role models or peer mentors to model best practices.
- Maintain continuing professional education to facilitate decision making.

Continuous Quality Improvement:
- Document all errors, including near misses.
- Have a standardized system for reporting medication incidents.
- Hold regular safety meetings with the entire team to review errors and how to prevent them.
- Ensure consistent and appropriate disclosure of errors to patients, their families, and other healthcare providers, including actions taken to minimize harm and prevent recurrence.
- Circulate newsletters that include error prevention information or review of incidents (e.g., ISMP Canada newsletter).
- Incorporate regular safety audit procedures such as self-audits that can be performed and evaluated by the pharmacy team to identify and correct potentially unsafe practices.

Wish List:
- Incorporate an electronic system for effective documentation of patient outcomes.
- Incorporate automation for dispensing to decrease errors and increase time for clinical care.
- Introduce a bar-coding system to facilitate medication checking against the prescription and to track medication lot numbers and expiry dates.
- Health Canada to assign significantly different DINs to different strengths of the same medication. Most differ only by 1 or 2 end digits.
- Encourage manufacturers of generic medications to use names that resemble the brand name closely.
- Update drug interaction databases more frequently to identify interactions based on the newest information.
- Flag drug interactions more conspicuously to draw attention to those that are severe.
- Establish electronic links to the most up-to-date clinical information so that personnel can click on a drug interaction flag.
While pharmacies use a number of tools to prevent errors, not all forms of operational intervention are equally effective. The effectiveness of such tools and strategies depends on where and how they operate, both within the dispensary and within the wider store context.
The accompanying table below provides examples of how these error-prevention tools work and their comparative effectiveness:

<table>
<thead>
<tr>
<th>Error Prevention Tool</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail-safes &amp; constraints</td>
<td>The pharmacy system is integrated with the cash register to prevent a clerk from ringing up a prescription if the final check has not been completed by a pharmacist.</td>
</tr>
<tr>
<td>Forcing functions</td>
<td>Pharmacy system prevents overriding selected high-alert medications without a notation; a barcode scanning system does not allow final verification without a positive match.</td>
</tr>
<tr>
<td>Automation &amp; computerization</td>
<td>Robotic technology used to prepare and dispense prescriptions; pharmacy systems provide accurate warnings related to allergies, significant drug interactions, and excessive doses.</td>
</tr>
<tr>
<td>Standardization</td>
<td>Establishment of a uniform model when performing various functions to reduce complexity and variation.</td>
</tr>
<tr>
<td>Redundancies</td>
<td>Independent double checks of high-alert medications.</td>
</tr>
<tr>
<td>Reminders &amp; checklists</td>
<td>Clear identification of high-alert medications; using pre-printed prescription pads with prompts for important information when taking a verbal prescription.</td>
</tr>
<tr>
<td>Rules &amp; policies</td>
<td>Clear policies are useful but can be complex and rely on memory.</td>
</tr>
<tr>
<td>Education &amp; information</td>
<td>Useful when combined with other strategies – reliance on memory makes individual use limited.</td>
</tr>
<tr>
<td>Reminders to be more careful</td>
<td>Least effective error prevention tool.</td>
</tr>
</tbody>
</table>

The least effective tools rely primarily on memory (a human factor), making them less reliable than other system interventions.

Keep in mind, too, that even effective systems can be overridden by human intervention (e.g., sharing of individual passwords among staff; overriding drug interaction alerts; putting the wrong medication in an automated dispensing machine; other time-saving ‘short cuts.’).

---

When first hearing about any change, most employees will look at the change from a personal perspective and ask how it will directly affect them. Explaining the likely outcomes and benefits of the change in an open, transparent way can mitigate fears and help people begin to consider accepting the change. Anticipate and prepare responses to common objections that come forward during any change.

Information gathered from the assessment phase will also help identify potential objections to patient safety improvements.

### Possible Reasons for Objections

<table>
<thead>
<tr>
<th>Reason for Objection</th>
<th>Strategy for Managing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>It may mean more work.</strong></td>
<td>Initially, this is likely true, as it takes time and effort to learn new ways of doing things. Be specific about the changes and how they will impact employees and work. Explain efforts to make the change smooth, and be candid about expected challenges. Offer ongoing assistance and check in frequently.</td>
</tr>
<tr>
<td><strong>Flavour of the month.</strong></td>
<td>This will be a common attitude if experience has been that ’fad’ initiatives rolled out in the past have not been properly introduced or lacked momentum to succeed. Explain that a commitment to patient safety is an essential part of pharmacy practice, ensures we do the best for each patient, helps us continue to improve quality and safety, and is supported by the pharmacy organization.</td>
</tr>
<tr>
<td><strong>It may go away if I ignore it.</strong></td>
<td>Useful strategies include ongoing communications, identifying early adopters and their successes, engaging patients, and leading by example.</td>
</tr>
<tr>
<td><strong>Unwilling to take ownership and be committed.</strong></td>
<td>This attitude can result from perceptions of overwhelming work pressures. Explain the difference between workplace (performance) standards related to the management of the business and professional standards which are obligations to patients. The organization can provide tools; it is up to the health professional to take responsibility to act.</td>
</tr>
<tr>
<td><strong>First you change, then I will.</strong></td>
<td>Explain the organization’s actions to commit to the change and to support staff in moving through the change. Ask what else might be needed in the form of organizational support to facilitate change at the pharmacy level.</td>
</tr>
<tr>
<td><strong>I am afraid of disclosing errors I make.</strong></td>
<td>If the culture in the past has been one of ‘blame and shame’, and punitive actions have been the norm, it will be very difficult for staff to begin to engage with patient safety best practices. Commitment is required at every level to embrace patient safety culture, and to reward changed behaviours to re-establish trust. This will take time and continuing support from leaders.</td>
</tr>
<tr>
<td><strong>I don’t know if I am competent to do these new things.</strong></td>
<td>New ways of doing things often include new terminology (jargon), new activities, and new administrative demands - all of which can lead to personal anxiety. Continue to keep employees informed: how long the change will take; the likely consequences; the gap between present performance and future expectations; and, the organization’s actions to help staff get there. It is important to recognize that change doesn’t happen overnight.</td>
</tr>
</tbody>
</table>

Change is never easy. Organizations that understand the reasons why people resist change can develop effective strategies to improve the adoption of the change and the potential for its success. Ongoing organizational leadership and support will be key factors in preparing and coaching staff through the change process.

---

Three tactics were selected to demonstrate the commitment of organizations to taking action to promote and support patient safety in their pharmacies. These tactics were identified based on recognized safety issues, the availability of tools, minimal cost, and ease of integration into workflow. Neighbourhood Pharmacies will continue to identify and distribute additional tactics to position pharmacies and their personnel actively on the solution side of the challenges facing pharmacy.

1. Distribute ISMP Canada Opioid Safety Information

**Background:**
Canadians are the world’s second largest per capita consumers of prescription opioids. In Ontario, opioid abuse is two to four times higher than other provinces, accounting for 1 in 8 deaths among young people age 25 to 34 in 2010\(^1\). Considering law enforcement, the justice system and productivity lost due to morbidity and premature mortality, the estimated social, economic and health costs to Ontario due to untreated opioid addiction exceeds $1 billion, annually\(^1\). And this issue is not confined to Ontario.

The Canadian Centre on Substance Abuse (CCSA) led a group of 30 stakeholders (The National Advisory Council on Prescription Drug Misuse) in the development of a 10-year strategy to address the misuse of prescription drugs that have a high potential for harm. Published in March 2013, First Do No Harm: Responding to Canada’s Prescription Drug Crisis\(^2\) has developed 58 achievable short and longer term recommendations to address this issue. Other actions on this problem include the following:\(^3\):

- The Canadian Association of Chiefs of Police has implemented a National Prescription Drop Off day to encourage the public’s safe return of prescription drugs;
- IMSP Canada has developed patient materials (brochure and video) to educate the public on the risks associated with prescription opioid use.

**Action:**
Pharmacy’s personnel can help reduce the harm associated with the abuse of prescription opioids through pharmacy-led distribution of brochures developed by ISMP Canada (available on its website in both English and French). The brochure also contains links to a video developed by ISMP Canada on the same topic.

**Rationale:**
- Pharmacy patient safety is a Neighbourhood Pharmacies strategic priority.
- Ready to use: clinical and creative development is already completed by ISMP Canada.
- Minimal printing costs. Alternatively, pharmacies with enabling software may be able to develop a ‘force print’ solution for all opioid prescriptions dispensed (through DIN linking), or to print patient brochures directly from the ISMP Canada website to distribute with opioid prescriptions.
- Easy integration into workflow, as pharmacy-generated print-outs are already provided to patients.

2. Display ISMP Canada’s ‘5 Questions to Ask’ Poster

**Background:**
Patients are at high risk of fragmented care, adverse drug events, and medication errors during transitions of care. Ensuring safe medication transitions requires patients to be active partners in their health to ensure that they have the information they need to use their medications safely. This simple poster informs and encourages patients to ask the right questions of their healthcare provider:

- Have any medications been added, stopped, or changed and why?
- What medications do I need to keep taking and why?
- How do I take my medications and for how long?

---
\(^{11}\) MOH/LET Meeting Presentation Narcotic Use and Misuse in Ontario, October 13, 2015.
\(^{13}\) Retrieved online at http://healthycanadians.gc.ca/anti-drug-antidrogue/funding-financement/projects-projetseng.php

continued...
Tactics to Demonstrate Commitment to Pharmacy Patient Safety

- How will I know if my medication is working and what side effects should I watch for?
- Do I need any tests and when do I book my next visit?

Action:
Pharmacy personnel can help encourage patients to become more active in the management of their own care, and engage with them on their medications by posting the ISMP Canada poster ‘5 Questions to Ask’.

Rationale:
- Pharmacy patient safety is a Neighbourhood Pharmacies’ strategic priority.
- Ready to use: Clinical and creative development is already completed by ISMP Canada.
- Minimal printing costs.
- Easy integrated into workflow.
- May provide an opportunity to offer medication review services to patients.

3. Promote Acetaminophen Safety

Background:
Acetaminophen is one of the most commonly used pain relievers in Canada, with approximately 4 billion tablets sold each year. It has been available in Canada since 1961 and is an ingredient in many over-the-counter and prescription products. Although generally considered safe when used as directed, taking too much or for too long can cause serious liver injuries, including Acute Liver Failure, and, in the most serious cases, death.

Research by Consumer Health Products Canada indicates some Canadians may be at risk of harm due to inadvertent overdosing. Health Canada is aware of the concern and has taken a number of steps to build public understanding and thereby reduce the risk of acetaminophen caused liver injury. Most recently, Health Canada has invited key stakeholders to engage in a technical discussion to consider risk minimization options, and key messages to share with Canadians.

Action:
Pharmacy personnel can play a vital role in educating patients on the appropriate use of acetaminophen by sharing acetaminophen safety messages on social media (or linking to acetaminophen safety on the Health Canada website), and promoting a standard of care for all healthcare staff to engage with patients.

Tips for Practitioners
- Before prescribing or recommending any product containing acetaminophen, ask patients about their use of other products containing acetaminophen, and update patient records accordingly.
- When prescribing or dispensing prescription products containing acetaminophen, be sure that patients understand the importance of adhering to the recommended dosage schedule. Remind patients to check the ingredients on all medication labels carefully, because many non-prescription products contain acetaminophen.
- If patients are taking multiple medicines containing acetaminophen, help them to understand the total amount that can be taken safely.
- Ensure that parents and caregivers understand how to dose children’s acetaminophen products correctly.
- Ensure that weight-based doses are based on an accurate weight in the corresponding units (e.g., kilograms versus pounds).

Rationale:
- Pharmacy patient safety is a Neighbourhood Pharmacies’ strategic priority.
- Easily integrated into workflow.
- Demonstrates the value of pharmacy in communicating safety risks directly to patients.

Conclusion
Canada’s pharmacy industry operates with a high degree of excellence and accuracy, dispensing more than 670 million prescriptions annually and delivering a growing range of vital patient services. Our patients depend on the continuing diligence and professionalism of all those in pharmacy who put patients first in everything we do.

While no human healthcare system is perfect, commitment to continuous improvement in pharmacy patient safety is both the right thing to do and good for business. There is always more we can do, because our patients’ lives and well-being are at stake, all day, every day.
This section presents two questions and thought-starters for identifying and addressing common patient safety challenges in pharmacy settings. As you consider these scenarios, begin by asking:

‘Where in your policy & procedures manual is patient safety specifically addressed?’ ‘Where is reporting promoted?’

**Challenge 1:**
**Education and Training**

Healthcare professionals may not have received any teaching on patient safety during their formal professional training. As a result, they can be ill-prepared to manage adverse events when they happen.

It is common for healthcare professionals to become the ‘second victim’ after an adverse event: they feel shame and guilt.

**Thought-starters:**
- Incorporate training on patient safety culture for all staff in their roles across the organization. Emphasize the desired behaviours and activities, and that everyone is responsible for patient safety.
- Review and revise new staff orientation materials to emphasize expectations, roles and responsibilities in patient safety.
- Encourage staff to sign up for email newsletters regarding safety (e.g. ISMP Canada; Health Canada MedEffect or Health Product Infowatch).
- Provide tools for staff to document, review, and respond to adverse events and near misses. Use an approach that asks the question ‘How did this happen?’ rather than ‘Who did this?’

**Challenge 2:**
**Performance Evaluation**

While the success of the business depends on sound financial performance, including patient safety in evaluation demonstrates to staff that equal emphasis is given to both the business and the practice of pharmacy, leading to greater employee engagement with patient safety.

**Thought-starters:**
- Refer to the ‘Safety and Quality’ section of NAPRA’s Model Standards of Practice for Canadian Pharmacists to help identify patient safety measures.
- Reposition clinical services such as medication reviews as opportunities to enhance patient safety through the identification and resolution of drug therapy problems.

**Consider pay-for-performance incentives:**
- Work with pharmacy teams to understand which relevant patient safety measures to evaluate.
- Establish goals such as holding quarterly meetings to evaluate adverse events, or annually completing the Medication Safety Self-Assessment for Community Pharmacy from ISMP Canada.

**CHALLENGE 2: THOUGHT STARTERS**

2.1 How familiar are professional staff with standards of practice? Hold lunch-and-learns to ensure everyone is up to date.

2.2 Identify 3 patient safety performance measures (separate and distinct from financial measures) to incorporate into performance evaluation.

2.3 List ways of incentivizing staff for identifying and resolving drug therapy problems during medication reviews.

**CHALLENGE 1: THOUGHT STARTERS**

1.1 Where are your training gaps in patient safety?

1.2 Does your policy and procedures manual specifically address patient safety? Does it promote reporting?

1.3 How do you know whether all staff know how to respond to adverse events?
Questions to ask about your medications...
QUESTIONS TO ASK ABOUT YOUR MEDICATIONS when you see your doctor, nurse, or pharmacist.

1. CHANGES?
   Have any medications been added, stopped or changed, and why?

2. CONTINUE?
   What medications do I need to keep taking, and why?

3. PROPER USE?
   How do I take my medications, and for how long?

4. MONITOR?
   How will I know if my medication is working, and what side effects do I watch for?

5. FOLLOW-UP?
   Do I need any tests and when do I book my next visit?

Keep your medication record up to date.

Remember to include:
- drug allergies
- vitamins and minerals
- herbal/natural products
- all medications including non-prescription products

Ask your doctor, nurse or pharmacist to review all your medications to see if any can be stopped or reduced.

Visit safemedicationuse.ca for more information.
Appendix III

Opioid Pain Medicines...
Opioid Pain Medicines
Information for Patients and Families

You have been prescribed an opioid pain medicine that is also known as a narcotic. This leaflet reviews some important safety information about opioids.

Patients, family, friends, and caregivers can play an important role in the safe use of these medicines; share this information with them.

With opioids, there is a fine balance between effective pain control and dangerous side effects.

Risk of overdose and addiction:
Many people have used opioids without problems. However, serious problems, including overdose and addiction, have happened. It is important to follow the instruction on the prescription and use the lowest possible dose for the shortest possible time, and to be aware of signs that you are getting too much opioid.

Avoid alcohol and benzodiazepines.

Side effects:
Constipation, nausea, dry mouth, itchiness, sweating, and dizziness can happen often with opioids. Contact your doctor or pharmacist if your side effects are hard to manage.

Your ability to drive or operate machinery may be impaired.

Some people are more sensitive to the side effects of opioids and may need a lower starting dose or more careful monitoring. Talk to your doctor about the HIGHER RISK of dangerous side effects if:

- You have certain health conditions, for example:
  - Sleep apnea
  - Lung disease (e.g. COPD or asthma)
  - Kidney or liver problems
- You have never taken opioids before
- You are already taking an opioid or medications for anxiety or to help you sleep
- You have a history of problems with alcohol or other substances
- You have had a bad reaction to an opioid before
- You are age 65 or older

Safe keeping:
Never share your opioid medicine with anyone else. Store it securely in your home. Take any unused opioids back to your pharmacy for safe disposal.

Signs of Overdose
Stop taking the drug and get immediate medical help if you experience the following:

- Severe dizziness
- Inability to stay awake
- Hallucinations
- Heavy or unusual snoring
- Slow breathing rate

Your family member or caregiver needs to call 911 if:

- You can’t speak clearly when you wake up
- They can’t wake you up
- Your lips or fingernails are blue or purple
- You are making unusual heavy snoring, gasping, gurgling or snorting sounds while sleeping
- You are not breathing or have no heartbeat

Never leave a person alone if you are worried about them.

Ask about take-home naloxone kits.

Ask your Pharmacist if you have any questions.
Other options are available to treat pain.