ISMP Canada Progress Report

to the

Ontario Ministry of Health and Long-Term Care

and the

Ontario Pharmacy Council

June 2009

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The Institute for Safe Medication Practices Canada (ISMP Canada) is an independent national not-for-profit agency committed to the advancement of medication safety in all healthcare settings. ISMP Canada works collaboratively with the healthcare community, regulatory agencies and policy makers, provincial, national, and international patient safety organizations, the pharmaceutical industry, and the public to promote safe medication practices.

ISMP Canada’s mandate includes collecting, reviewing, and analyzing medication incident and near-miss reports, identifying contributing factors and causes, and making recommendations for the prevention of harmful medication incidents. Information on safe medication practices for knowledge translation is published and disseminated.

Additional information about ISMP Canada, and its products and services, is available on the website: www.ismp-canada.org.

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Executive Summary

With the support of the Ontario Ministry of Health and Long-Term Care (MOHLTC) and the Ontario Pharmacy Council, the Institute for Safe Medication Practices Canada (ISMP Canada) developed and delivered a pilot program to link the community-based MedsCheck program with medication reconciliation programs in hospitals. The goal of this collaborative initiative between hospitals and community pharmacists was to obtain the Best Possible Medication History (BPMH) for patients preparing to be admitted to hospital for surgery.

Ten Ontario hospitals, representing 6 LHINs, agreed to test the effectiveness of the linkage by asking eligible elective surgical patients to bring a MedsCheck to their pre-admission clinic appointments. Additional hospitals asked to participate in the pilot as the interest in this initiative grew. The pilot ran from February 2008 - March 2009.

To facilitate the MedsCheck /medication reconciliation linkage, ISMP Canada:
- Coordinated monthly teleconferences to discuss progress and share ideas
- Developed communication tools, presentations and other resources
- Assisted hospitals with implementation of internal change processes
- Identified issues inherent in the process and the supports and services required for success
- Communicated with community pharmacies to introduce the concept of MedsCheck supporting medication reconciliation at both admission and discharge.

Baseline data was collected on 140 pre-surgical patients. The average time to complete a BPMH was 12 minutes per patient. No patients brought a MedsCheck to the BPMH interview. After twelve months, the effect of the MedsCheck on the medication reconciliation process was evaluated. The average time to complete the BPMH when the patient brought a MedsCheck was not reduced but remained the same. The sample included 113 MedsChecks from six hospital sites. There were 180 discrepancies between the MedsCheck and the BPMH taken by the pre-admission clinical staff. The majority of the discrepancies found were medication omissions (58.2%) followed by incorrect/omitted frequency (20.6%), medications with no indication (11.5%) incorrect/omitted dose (9%), miscellaneous (0.6%). Discrepancies included prescription medications, non-prescription medications and herbal medications.

Findings indicate that linking community MedsCheck to hospital medication reconciliation requires:
- Reliable quality of the MedsCheck
- Staff and physician buy-in
- Coordination of resources and time to implement.

Because MedsCheck is the pivot upon which this initiative will succeed, the first of these criteria presents a challenge that is, to ensure that the MedsCheck quality is consistent and at a professional standard.

Unfortunately, this currently is not the case; the quality of the MedsCheck varied significantly. Teaching community pharmacists a systematic process for completing MedsCheck at the highest possible level will be an important next step to moving this initiative forward.

As the only province to fund comprehensive medication reviews by community pharmacies, Ontario can lead the development of this patient safety intervention by expanding the initiative province-wide, using the tools and resources ISMP Canada has developed in the pilot.
Introduction

The Institute for Safe Medication Practices Canada (ISMP Canada) is an independent national not-for-profit agency committed to the advancement of medication safety in all healthcare settings. ISMP Canada works collaboratively with the healthcare community, regulatory agencies and policy makers, provincial, national and international patient safety organizations, the pharmaceutical industry and the public to promote safe medication practices.

With the support of the Ontario Ministry of Health and Long-Term Care (MOHLTC) and the Ontario Pharmacy Council, ISMP Canada developed and delivered a pilot program to link the community-based MedsCheck program with medication reconciliation programs in hospitals. The goal of this collaborative initiative between hospitals and community pharmacists was to obtain the Best Possible Medication History (BPMH) for patients preparing to be admitted to hospital for surgery.

ISMP Canada, which has established relationships with both hospitals and community pharmacies through the Ontario MOHLTC Medication Safety Support Service, was well positioned to lead this medication reconciliation initiative, building on its national leadership of the medication reconciliation intervention of the Safer Healthcare Now! campaign.

Background

MedsCheck, an initiative funded by the Ontario Ministry of Health and Long-Term Care, entitles people taking three or more prescription medications to a one-on-one 30 minute appointment with a community pharmacist, who reviews their medications, helps them better understand their medication therapy and ensures that medications are taken as prescribed. As part of the service, the pharmacist provides the client with an up to date medication list.

Medication reconciliation is a process to improve communication about medication at transition points of a patient’s care, as outlined in Accreditation Canada’s Required Organizational Practices. It begins with creating an accurate medication list and then comparing that list with the medication orders to identify and resolve medication discrepancies. The goal of medication reconciliation is to reduce the potential for harm caused by adverse drug events that result from breakdowns in communication about medications.

Goal

The goal of the Linking MedsCheck to Medication Reconciliation initiative was to facilitate the linkage between MedsCheck in the community and medication reconciliation in hospitals across Ontario, starting with surgical pre-admission clinics with pre-planned admissions.

Objectives

To enhance communication and foster seamless patient care, the project had four primary objectives. These were to:

- Facilitate the co-ordination of MedsCheck with hospital medication reconciliation
- Increase awareness of the MedsCheck program among hospital and pre-admission clinic staff and patients
- Incorporate the use of MedsCheck into the institutional medication reconciliation process
• Identify the impact of using MedsCheck information in the hospital patient medication reconciliation process.

Scope

The project was designed to identify implementation issues and the supports and structures required for success in 10 pilot hospitals and communities, to be followed by dissemination of the Linking MedsCheck to Medication Reconciliation program to all Ontario LHIN’s in 2009/10.

Methodology

Recruitment

Hospital Participants

• Ten Ontario hospitals across six LHINs were recruited. (Appendix A)
• A number of additional hospitals expressed interest in joining monthly teleconferences to learn from the progress of the ten test sites but did not collect data.

Patient Participants

Selection criteria included patients who:

• Had pre-booked appointments with pre-admission clinics
• Would be admitted to hospital post-surgery.
• Were on three or more prescription medications.

Qualifying patients were asked to book their MedsCheck appointments one to two weeks prior to their pre-admission clinic appointments to allow community pharmacies adequate time and flexibility to complete the MedsCheck.
Implementation

Although the concept of linking MedsCheck to medication reconciliation is straightforward, it requires planning, tools, staff and time. A range of communications and process changes were necessary in participating hospitals. ISMP Canada created processes for coordinating components of the community and hospital programs, bridging communications and promoting seamless care. The project also developed generic tools to share across the province once they were tested in the pilot hospitals.

Diagram A. Linking MedsCheck to MedRec Process
Tactics

1. Promotion materials
   - **MedsCheck/MedRec Checklist (Appendix B)**
     A checklist of activities was created to help guide hospitals through the steps to coordinate *MedsCheck* in the community with pre-admission clinic medication reconciliation.
   - **Communication Tools (Appendix C)**
     In collaboration with the Ministry of Health and Long-Term Care, ISMP Canada created and distributed three key communication documents to promote the initiative to community pharmacists, hospitals and patients.

2. Monthly Teleconferences
   ISMP Canada convened monthly teleconferences of hospital and community pharmacists across Ontario to share ideas about co-coordinating the *MedsCheck* program with the medication reconciliation process. There was also discussion about how to increase *MedsCheck* use.

3. Presentations and Meetings Between Hospital and Community Pharmacists
   In collaboration with hospitals, ISMP Canada helped co-ordinate and facilitate meetings and presentations between hospitals and community pharmacists to introduce and market the initiative.
   ISMP Canada coordinated 11 face-to-face meetings of more than 265 community and hospital pharmacists and technicians in 5 LHIN regions and presented the *MedsCheck* medication reconciliation initiative at three provincial conferences.

4. Online Tools
   All resources were posted on a national medication reconciliation Communities of Practice website (available at: [www.saferhealthcarenow.ca](http://www.saferhealthcarenow.ca)) so participants could download and adapt them:
   - Process Flow Map of a successful process
   - *MedsCheck* Posters for community pharmacists
   - *MedsCheck* Posters for preadmission clinic
   - Telephone script for calling patients
   - Medication Safety Poster
   - Update of hip/knee binder for Orthopaedic Surgery patients to include *MedsCheck*
   - Sample articles in community newsletters
   - Sample presentation to Community Pharmacists
   - Burlington Community Pharmacy Resource Website to help community pharmacists enhance their *MedsCheck*. Available at [www.sites.google.com/site/burlingtonppc/meds-check](http://www.sites.google.com/site/burlingtonppc/meds-check)
Findings

Data Collection and Results

I. Baseline Data

Baseline Data Collection

ISMP Canada asked participating hospitals to collect baseline data on 20 pre-admission clinic patients. Clinicians in the pre-admission clinic were asked to measure the time it took to take the medication history and record the number of medications (including non-prescription medications the patient was taking following their customary procedures. They were asked to indicate whether or not the patients brought a MedsCheck with them to their pre-admission clinic appointment.

Baseline Results

Data was recorded for 140 patients from seven of the 10 hospitals sites. Patients brought in an average of eight medications and it took an average of 12 minutes per patient to complete a BPMH. No MedsChecks were brought in by any of the 140 patients in the sample.

II. Implementation Data

Implementation Data Collection

After meeting and communicating with community pharmacists, changing forms and tools, communicating with surgeons, nurses and implementing the steps on the checklist, ISMP Canada asked hospitals to:

- Collect 20 MedsChecks, if possible
- Record the time to create the BPMH
- Compare their medication history with the MedsChecks they received using a data collection tool to categorize any discrepancies found.

Implementation Results

- 113 MedsChecks collected from six hospital sites
- Not all hospitals in pilot submitted implementation data
- 180 discrepancies were identified between the BPMH and MedsCheck
- Average Time to Complete a BPMH with MedsCheck = 12 minutes
Data Evaluation

Time

The average time to complete the BPMH at baseline with and without a MedsCheck was unchanged at 12 minutes per patient.

This study investigated whether there would be time saved to complete a BPMH with a MedsCheck compared to without having a MedsCheck. However, pre-admission clinicians found that it took additional time to interpret and verify the MedsCheck, as well as time to record the discrepancies between the MedsCheck and the BPMH.

As well, staff in the pre-admission clinics that were new to incorporating MedsCheck into their approach to medication history taking would typically interview the patient and review the medication vials as a way to verify the MedsCheck.

Discrepancies

The study found 180 discrepancies (approximately 1.6 discrepancies per MedsCheck) between the MedsCheck and the BPMH. The most common type of discrepancy was a drug omission where the pharmacist failed to include medications the patient was currently taking. Two-thirds of the medications omitted were over-the-counter medications, herbals, and vitamins. The second most common type of discrepancy was missing/incorrect frequency. Many times the frequency would be listed as ‘take as directed’ which is not enough information to accurately order the medication in hospital.

Diagram B: Categorization of Discrepancies Identified
While we did not investigate the clinical impact of these discrepancies, we did record the names of medications that were involved in the discrepancy. Some of the medications that were omitted on the MedsCheck (errors of omission) are of clinical significant and if missed may have had the potential to cause adverse events. Some of the medications listed on the MedsCheck that were no longer taken by the patient (errors of commission), would have also clinically impacted the patient if they were ordered inadvertently upon admission.

<table>
<thead>
<tr>
<th>Type of Discrepancy</th>
<th>Medications Associated with the Discrepancy</th>
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<tbody>
<tr>
<td>Medication Omitted</td>
<td><strong>Prescription Meds:</strong> epoetin, tiotropium, spironolactone, fluticasone puffer, rabeprazole, ketorolac, tamsulosin, risedronate, acetaminophen with codeine, meloxicam, leuprolide acetate, valsartan, salmeterol/fluticasone inhaler</td>
</tr>
<tr>
<td></td>
<td><strong>Non-Prescription &amp; Herbal:</strong> glucosamine, vitamin D, calcium, duratears, vitalux, ecasa81mg, nitrospray, ASA, Vit B12, Flaxseed Oil, Multivitamin, Nytol, loratadine, Otrivin, Benylin, calcium citrate &amp; vitamin D, Vitamin E, Halibat liver oil, calcium &amp; magnesium, Vicks rub, Tylenol Arthritis, ferrous gluconate</td>
</tr>
<tr>
<td>Incorrect/Omitted Dosage</td>
<td>rosiglitazone, paroxetine, oxycodone with acetaminophen, potassium chloride supplements</td>
</tr>
<tr>
<td>Incorrect/Omitted Freq (Sig)</td>
<td>lansoprazole, conjugated estrogensn, cholestyramine, Symbicort inhaler</td>
</tr>
<tr>
<td>Medications the patient is no longer taking</td>
<td>ranitidine, proctosedyl, ramipril, arthrotec, oxycodone with acetaminophen, citalopram, amlodipine, rabeprazole, salbutamol, hydrochlorothiazide, Advair discus (500 mcg), rabeprazole, calcium, vitamin D</td>
</tr>
</tbody>
</table>

**Table C: Medications Associated with Discrepancies**

**Limitations/Assumptions:** If there was a discrepancy between the MedsCheck and the hospital pre-admission medication history, it was assumed that the hospital medication history was accurate and most current. Changes that were made to the medication regimen after the MedsCheck was completed may have been counted as a discrepancy. Also, our sample of MedsChecks did not include all the hospitals in the pilot due to limitations from hospitals to collect MedsChecks discrepancy data.
Lessons for Provincial Expansion

Five key lessons from the pilot stage of Linking MedsCheck to Medication Reconciliation will inform how the program goes forward and expands:

I. There are opportunities to improve the consistency of MedsCheck quality.

Across all participating hospitals and communities, there were examples both of MedsCheck done accurately and those that created confusion for the pre-admission clinic staff.

The following is the feedback from the pilot hospitals:

Areas of Excellence

- At one hospital, a drug allergy documented on the MedsCheck had been missed on the patient’s medical chart.
- MedsChecks that are printed are helpful, especially with the pharmacist’s comments on the side to indicate what the patient was actually taking versus what was prescribed.
- Some MedsChecks had patient instructions in the patient’s native language to help them understand how to take their medication.
- When the MedsCheck was properly done, community pharmacies provided a lot of useful information to hospitals, especially when patients forgot to bring in their medications.

Opportunities for Improvement

- It would be helpful if the word “MedsCheck” were clearly indicated on the profile. Different pharmacies use different forms and as a result, it is often difficult for the pre-admission clinician to determine whether the form brought in by the patient is an actual MedsCheck or a printout of the medication list. At one hospital site, eight out of 26 MedsChecks collected were prescription authorization requests, copies of blister pack medication lists or computerized patient medication lists with no additional pharmacist’s notes.
- Some patients were given a computerized medication profile to sign without having had an actual consultation with the pharmacist.
- A medication list was sent by courier to the patient to have signed, without the consultation.
- Many pharmacies printed off computer medication profiles that included repeated/refill medications, which can be quite confusing and time consuming for the healthcare professional and/or patient to read and interpret.
- The quality of the MedsCheck has prevented us from relying on them to create a BPMH. Most are a copy of the patient profile from the community pharmacy.
- When the MedsCheck is not done properly, it caused more confusion.
Opportunities for Improvement

- Direct education from the ISMP Canada team to community pharmacists as well as a feature in the OCP journal. Maybe a presentation at the annual OPA conference. Community pharmacists should know about the problems with MedsCheck.
- While some pharmacist do the MedsCheck with great detail, others are simply printing off the patient’s history profile from their dispensing software and signing their names.
- Quality of the MedsCheck not at the level expected by the hospitals to use them as a source of information and supplement the work the hospitals are currently doing with the medication reconciliation process.
- Incorporating and supporting the MedsCheck process through the hospitals and allow them to bill for the service from within would be more effective.

II. Communication within hospitals is complex and takes time and resources.

The success of this initiative relies on the involvement of multiple departments and disciplines. To achieve buy-in from healthcare professionals and patients, implementing MedsCheck/medication reconciliation requires multiple, targeted communications strategies. Audiences include surgeons, their receptionists, support staff, volunteer staff and nurses/pharmacists in the pre-admission clinics.

Each hospital adapted the communication tools for patients from a template created by ISMP Canada and the MOHLTC. Most hospitals required approval of letters or pamphlets for patients before these materials could be printed. Some hospitals require pre-approval by a forms committee or communication department. Since the printing is usually done in large batches, the ‘new’ communications to the patient would only roll out once the ‘old’ materials were used up.

The average time to make this kind of process change in hospitals, took at least 12 months before the pre-admission clinics started to receive a MedsCheck from their patients.

III. Community pharmacists are interested in more MedsCheck training, willing to meet the increased demand and work with hospitals on this initiative.

Meetings with community pharmacies were productive and encouraging. The community pharmacists who took part in the meetings looked forward to improving communication with hospitals, especially in the discharge process.

Some of the concerns of community pharmacists were:

- Added workload, not enough staffing or support from senior management
- Not compensated fully for time

(Note: Some community pharmacists who raised the concern about compensation were not aware about being able to charge for a MedsCheck Follow-up — for planned admission and discharge — for patients who already had their first MedsCheck.)
• Need for instruction to help improve their technique to perform MedsCheck
• Completing MedsCheck for patients who were not their usual patients
• Liabilities of recording what the patient was actually taking if it was different than what is prescribed. (Hospitals are encouraged to ask and record what the patient is ‘actually taking’)
• Need for staffing support and buy-in from the head offices of major chains and senior management
• Better patient medication information from hospitals upon discharge.

### IV. Community pharmacists have good ideas to accommodate increasing demand for MedsCheck.

Community pharmacists provided innovative suggestions to accommodate an increased demand for MedsCheck:

- Designated MedsCheck day - considered a viable business plan that pays for itself
- Using fourth year pharmacy interns - good educational experience
- Scheduling a regular daily time for MedsCheck
- Accommodating patients who cannot get a MedsCheck from their own pharmacies
- Calling patients to remind them about their MedsCheck appointments
- Using a special MedsCheck form designed by the hospital pre-admission clinic to be used only for patients going into that particular hospital.

### V. A reminder phone-call to patients increases MedsCheck use.

Some hospitals, using pharmacy staff, volunteers, pre-admission clinic staff or surgeon’s receptionists, called patients one to two weeks prior to their appointments to remind them to book their MedsCheck. This was a very effective method to increase the number of MedsCheck performed. Response from the patients has been positive.
Conclusions

Linking MedsCheck to medication reconciliation has significant benefits for patients. Linking MedsCheck to medication reconciliation reduces the potential for medication incident in the continuum of care between hospital and home. By ensuring the accuracy of medication information transfer at admission and discharge from hospital, this linkage helps to provide seamless care for patients.

Ontario has a unique opportunity to create a patient safety best practice. Good communication between hospitals and community pharmacies helps prevent medication incidents. As the only province in Canada with a payment model for community pharmacists to create comprehensive medication reviews, Ontario can lead the development of this patient safety intervention by expanding the initiative across the province. The resources and tools ISMP Canada has developed through the pilot provide a strong foundation to build on. There is one important challenge to meet however, which is to ensure that the MedsCheck quality is consistent and at a professional standard. Unfortunately, this currently is not the case; the quality of each MedsCheck varied significantly. It is important to ensure consistency because MedsCheck is the pivot upon which this initiative will succeed.

Linking MedsCheck to hospital medication reconciliation develops the relationship between patients and their community pharmacists, improves the efficiency and accuracy of the medication ordering process in hospitals, and strengthens Ontario’s continuum of care.

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2. SHN! Acute Care Medication Reconciliation Getting Started Kit.

3. Pharmacist Medication Assessments in a Surgical Preadmission Clinic Yvonne Kwan, BScPhm; Olavo A. Fernandes, PharmD; Jeff J. Nagge, PharmD; Gary G. Wong, BScPhm; Jin-Hyeun Huh, BScPhm; Deborah A. Hurn, RN, MA; Gregory R. Pond, MSc, PStat; Jana M. Bajcar, MScPhm, EdD Arch Intern Med. 2007;167:1034-1040
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ISMP Canada Progress Report to the Ontario Ministry of Health and Long-Term Care and the Ontario Pharmacy Council June 2009

Participating Hospitals
Appendix A – Participating Hospitals

Active Hospital Participants

- Joseph Brant Memorial Hospital (LHIN 4) Hamilton Niagara Haldimand Brant
- Markham Stouffville Hospital (LHIN 8) Central
- Mt. Sinai Hospital (LHIN 7) Toronto Central
- Norfolk General Hospital (LHIN 4) Hamilton Niagara Haldimand Brant
- Peterborough General Hospital (LHIN 9) Central East
- Royal Victoria Hospital (LHIN 12) North Simcoe Muskoka
- St. Joseph’s Healthcare (Hamilton) (LHIN 4) Hamilton Niagara Haldimand Brant
- The Scarborough Hospital (General Site) (LHIN 9) Central East
- The Scarborough Hospital Grace Campus (LHIN 9) Central East
- West Parry Sound HealthCare (LHIN 13) North East

Other Hospitals

- Brantford General Hospital (LHIN 4) Hamilton Niagara Haldimand Brant
- Bruyère Continuing Care (LHIN 11) Champlain
- Children’s Health Eastern Ontario (LHIN 11) Champlain
- North York General Hospital (LHIN 8) Central
- Ottawa General Hospital (LHIN 11) Champlain
- Ross Memorial Hospital (LHIN 9) Central East
- York Central Hospital (LHIN 8) Central
- Queensway-Carleton (LHIN 11) Champlain
- Montfort Hospital (LHIN 11) Champlain
- The Ottawa Hospital (LHIN 11) Champlain
- Thunder Bay Regional Hospital (LHIN 14) North West
- Toronto East General Hospital (LHIN 7) Toronto Central
- Trillium Hospital (LHIN6) Mississauga Halton
- St. Mary’s General Hospital (LHIN 3) Waterloo Wellington
Appendix B

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

MedsCheck/MedRec Checklist for Hospitals
Appendix B – MedsCheck /MedRec Checklist for Hospitals

This is intended as a guide to help institutions determine the steps needed to co-ordinate MedsCheck in community with medication reconciliation in the pre-admission clinic and is constantly being updated with new resources. Some of these steps may occur concurrently depending on each institution’s unique needs. The most up-to-date checklist and resources may be found on the communities of practice Safer Healthcare Now! website. For more information about MedsCheck: www.medscheck.ca.

☐ **Update** pre-admission clinic pamphlets and hip/knee binders/packages (which may need Pharmacy & Therapeutics/Surgery approval) to be given at the surgeon’s offices to include the new process of patients arranging a MedsCheck if they are on 3 or more prescribed medications to their pre-admission clinic appointment.
  - Sample Patient Pamphlet
  - Sample Hip/Knee binder updates

☐ **Inform** all surgeons and receptionists about the MedsCheck/MedRec project and ask them to verbally remind all eligible patients with 3 or more prescribed medications to book a MedsCheck 1-2 weeks prior to their pre-admission clinic appointment in addition to providing them with written information. Create verbal and written reminders for surgeons/receptionists and patients.
  - Sample Letter to Surgeons

☐ **Conduct** BPMH training sessions with hospital staff to teach how to incorporate MedsCheck as a source of information for BPMH gathering. (i.e. asking for a MedsCheck by name).

☐ **Liaise** with local community pharmacists and pharmacy groups to inform them about the MedsCheck/MedRec project and work together to improve communication about medications between hospital and community. Fax fan-out letters to community pharmacists through ISMP.
  - Sample Presentation for Community Pharmacies
  - Letter to Community Pharmacies

☐ **Start distributing** the updated hip/knee binders and/or pre-admission clinic pamphlets

☐ **Call** patients 2-3 weeks prior to their pre-admission appointment to remind them about their MedsCheck or help to assist with arranging their MedsCheck appointment. (optional)

For additional information, resources or assistance with these items, please contact Alice Watt at ISMP (Canada) @ awatt@ismp-canada.org or 416-733-3131 ext 250.
Communication Tools
Appendix C – Communication Tools

- Sample Letter to Community Pharmacists – Fax fan-out service available to all participating hospitals. (Total Number of Community pharmacies that received the fax approx. = 367)
  - Markham area (53)
  - Peterborough (43)
  - Richmond Hill (88)
  - Scarborough (183)
  - Hamilton and surrounding region (150)
- *Sample MedsCheck/MedRec Patient Pamphlet*
- Sample Letter to Surgeons
Sample Letter to Community Pharmacists

In collaboration with ISMP Canada, many hospitals in Ontario are working with community pharmacists to obtain the Best Possible Medication History (BPMH) for patients prior to their being admitted to hospital for surgery.

Hospitals are asking pre-operative elective patients to arrange a MedsCheck appointment with their community pharmacist 1-2 weeks prior to their pre-admission clinic appointment. Patients would then have their medications reviewed by their community pharmacist and receive a complete list of their current prescribed and over-the-counter medications. The MedsCheck information assists pre-op information gathering and should facilitate admission medication reconciliation.

How does it improve patient care?
- **Develops** and strengthens the relationship between patients and their community pharmacist.
- **Improves** seamless care between the community and hospital to ensure patients receive medications correctly and appropriately between transitions in care.
- **Prevents** medication errors and improves the efficiency and accuracy of the medication ordering process in hospital.
- **Supports** accurate communication across the continuum of care.

What does it involve?
If a patient calls for a MedsCheck appointment:
- **Arrange** the meeting 1-2 weeks before their pre-admission clinic date.
- **Conduct** a MedsCheck and print two copies for the patient. The patient should bring a copy of the medication list to the clinic appointment.

Who is eligible?
- Patients are entitled to an annual MedsCheck if they are taking 3-or-more prescribed medications for a chronic condition.
- When a patient is admitted to hospital and a MedsCheck has been completed within the last 12 months, pharmacists may conduct a MedsCheck Follow-Up for a Planned Hospital Admission.
- To accommodate the patient after the hospital visit, a MedsCheck Follow-Up as a result of a Hospital Discharge can be conducted within 2 weeks of a patient’s discharge.
- Pharmacies are reimbursed $25 for conducting a MedsCheck Follow-Up and there is no limit to the number of MedsCheck Follow-Up reviews that can be performed.
- For more information including PIN codes and the MedsCheck Program Guidebook, see [www.MedsCheck.ca](http://www.MedsCheck.ca). For MedsCheck practice tools and training, contact the Ontario Pharmacists’ Association website at [www.ontarioph.ca](http://www.ontarioph.ca).

For more information, contact Alice Watt at ISMP Canada @ awatt@ismp-canada.org 416-733-3131 ext 250

*This initiative is supported by the Ministry of Health and Long-Term Care.*
Sample Patient Pamphlets

Medications to Discontinue Prior to Surgery*

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<tr>
<th>Medication</th>
<th>When to stop</th>
<th>Why stop?</th>
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</table>

* If your doctor asks you to continue any of these medications, please follow their directions.

Please bring all your medications into the hospital with you.

Pre-Admission Clinic

Medication Information

You will be seeing a nurse (or a health-care professional) during your pre-admission clinic appointment. The nurse will ask you about your medications – prescription, over-the-counter, vitamin and herbal.

This information will become your Best Possible Medication History and the surgeon and other health-care professionals will use it during your hospital stay. Please bring all your medications with you on your appointment visit.

Many patients are using the MedsCheck program offered by their community pharmacist at the time of the hospital clinic appointment.

MedsCheck is a unique program paid for by the Ministry of Health and Long-Term Care. If you are taking 3 or more medications for a chronic condition(s), we recommend that you arrange a MedsCheck with your community pharmacist 1-2 weeks before your pre-admission clinic appointment. You are also eligible for a MedsCheck Follow-Up within 2 weeks of a hospital discharge.

Your community pharmacist will review your medications and give you a complete list that includes your prescription and over-the-counter medications. It is important to bring the MedsCheck list with you to your pre-admission appointment.

Name of your community pharmacy:______________________________

Telephone Number:___________________________________________

My MedsCheck is on (date)________________________ at (time)__________.

If there are any changes to your medications after you meet with the pre-admission nurse, please tell the surgical day care nurse on the morning you come in for surgery.

We will let you know if there are medications you need to stop taking before your surgery.

Carry an up to date medication list with you.
Welcome to MedsCheck

MedsCheck is a new, private consultation with your pharmacist that ensures you’re getting the most from your medications and that you’re taking them correctly.

1. **Who is eligible:** Ontarians who have a chronic condition and are taking 3 or more prescription medications.

2. **What it is:** An opportunity to meet with your pharmacist privately, once a year, for up to 30 minutes. It’s a free service. Just bring your OHIP card.

3. **How you benefit:** Your pharmacist will help you manage your prescription medications and better understand how they interact with each other and other over-the-counter medication you may be taking.

**Three things you’ll need to bring to your appointment.**


2. Any current medication containers, including those from other pharmacies, or a list of all your medications.

3. Any over-the-counter drugs, vitamins and/or herbal remedies you are currently taking.

**Book your free, private MedsCheck appointment today.**

Your pharmacist is looking forward to your visit and will book a convenient time for you to meet. Simply refer to your pharmacist’s contact information provided in the box below.

For questions, call INFOline at 1-800-225-5701 or TTY number 1-866-997-5556.
Or visit www.medscheck.ca
Sample Letter to Surgeons

June 2008

Dear Surgeons, Anaesthesiologists, Obstetricians and Receptionists,

Re: MedsCheck and Hospital Medication Reconciliation

(Insert hospital name), in collaboration with ISMP Canada and supported by the Ministry of Health and Long-Term Care, is introducing a new process to facilitate medication ordering for surgical admissions.

MedsCheck, is a provincially funded initiative, which allows a patient to have their medications reviewed by their community pharmacist and also receive a complete list of their current prescription and over-the-counter medications. As the community pharmacist is well positioned to provide patients with this information, a new recommendation is for pre-operative elective patients to try to arrange a MedsCheck appointment with their community pharmacist 1-2 weeks prior to their pre-admission clinic appointment. The MedsCheck information will be included in the pre-admission clinic process for obtaining the patient’s medication history.

Please include the enclosed revised patient information leaflets when providing your patients with the pre-admission information packages.

We need your help to remind patients to try to arrange a MedsCheck appointment.

Time: 1-2 weeks prior to their pre-admission appointment.

Who: Pre-elective surgical patients with an Ontario Health card on 3 or more medications for a chronic condition.

Where: Patient’s community pharmacy.

Thank you for your support in improving the medication information available during transitions in care.

Sincerely,

Director of Pharmacy
Sample Information for Hip/Knee Surgical Patients
Used with permission from Markham Stouffville Hospital

My Total Joint Replacement Passport
Please use this passport to record the dates for all of your appointments and other activities. The next page explains each appointment / activity in more detail.

My surgeon is Dr. __________________________. His/her office will contact me with my surgery date.
My family member/friend who will assist me throughout my joint replacement is: __________________________. He/she can be reached at: ____________________.

<table>
<thead>
<tr>
<th>Appointment/Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Date of surgery</td>
<td></td>
</tr>
<tr>
<td>2. Preoperative assessment</td>
<td></td>
</tr>
<tr>
<td>3. Appointment with your family doctor</td>
<td></td>
</tr>
<tr>
<td>4. Appointments with specialists</td>
<td></td>
</tr>
<tr>
<td>5. MedsCheck appointment with your community pharmacist (if you are on 3 or more prescribed meds)</td>
<td></td>
</tr>
<tr>
<td>6. Community Care Access Centre (CCAC) visit or Outpatient Physiotherapy postoperative appointment</td>
<td></td>
</tr>
<tr>
<td>7. Discharge date from hospital</td>
<td></td>
</tr>
<tr>
<td>8. Staples/clip removal date</td>
<td></td>
</tr>
<tr>
<td>9. Anticoagulation therapy stop date</td>
<td></td>
</tr>
<tr>
<td>10. Appointment with your surgeon for postoperative follow-up visit</td>
<td></td>
</tr>
<tr>
<td>11. Transportation</td>
<td></td>
</tr>
</tbody>
</table>

Bring this passport with you to all appointments.

Appointment/activity details
1. **Date of surgery**: Your surgeon’s office will call you with your surgery date.
2. **Preoperative assessment**: This assessment is also known as your “SAC” (Surgical Assessment Clinic) visit. After your surgery is booked you will receive a call from your surgeon’s office to give you a date for your preoperative assessment. This is usually 3 – 4 weeks before your surgery. Read page xx of this guide for more information.
3. **Appointment with your family doctor**: You are required to see your family doctor for a full history and physical exam. The forms your doctor needs to complete are included in this guide in the “Forms and
Applications” section. You can make this appointment for any time in the 3 months before your surgery.

4. **Appointments with specialists**: Your family doctor or your surgeon may suggest that you see other specialists (for example, a cardiologist) before your surgery.

5. **MedsCheck appointment**: Arrange a MedsCheck with your community pharmacist 1-2 weeks before your SAC visit. Bring the MedsCheck list with you to your SAC appointment.

6. **Community Care Access Centre (CCAC)**: Read page xx for more information on CCAC eligibility.

7. **Outpatient physiotherapy**: Read page xx for more information on your postoperative physiotherapy needs. Most hip patients receive physiotherapy at home through CCAC services. This will be arranged while you are in the hospital. If you live outside the Markham Stouffville Hospital community, you need to contact your local hospital or clinic to find out what you need to do to arrange for physiotherapy to start as soon as possible after your discharge.

8. **Discharge date from hospital**: During your preoperative assessment at the hospital, the team will discuss your plans for going home and/or inpatient rehabilitation with you. For more information on discharge planning, see page xx of the guide.

9. **Staples/clips removal date**: Your staples/clips need to be removed sometime between the 14th to the 18th day after your surgery. You need to make an appointment with your family doctor to have this done.

10. **Anticoagulation therapy stop date**: Refer to your discharge instructions regarding when to stop taking your anticoagulants (blood thinners).

11. **Postoperative appointment with surgeon**: You will be seen by your surgeon in the Fracture Clinic at Markham Stouffville Hospital. You will be given this appointment upon discharge from the hospital. This appointment is generally 4-6 weeks after surgery.

12. **Transportation**: If you will need Mobility Plus services or an Accessible Parking Permit, it takes time for the applications to be approved.

### Forms and Applications

The forms and applications located in this section **must** be completed **before** your preoperative visit to the hospital. You may need to have someone help you complete them. If you have any questions, it is fine to contact your surgeon’s office for assistance.

These forms must be completed and brought with you to your preoperative assessment visit at the hospital:

- History and Physical Form
- Anesthesia Patient Questionnaire
- Inpatient Rehabilitation Application
- **MedsCheck** from your community pharmacist
What to Bring to the Hospital

Please bring the following items with you to the hospital. Label all your items clearly with your name.

Medications

☐ Bring all your medications with you including puffers, eye drops, creams, and other prescriptions. Be sure all medications are in original packaging.

☐ MedsCheck list from your community pharmacist if you are on 3 or more prescribed medications.

What do I need to bring?
Surgical Assessment Clinic (SAC) Checklist
Bring this patient guide with you. Your orthopaedic team will review your passport with you to ensure you are completing all of your pre-surgical preparations correctly.

<table>
<thead>
<tr>
<th>Surgical Assessment Clinic (SAC) Appointment Checklist</th>
<th>What to Bring with You</th>
</tr>
</thead>
<tbody>
<tr>
<td>The forms given to you with this guide are to be brought in with you to the SAC appointment or returned prior to the appointment. If you have mailed or faxed these forms, you must ensure they reach the hospital before this appointment.</td>
<td></td>
</tr>
<tr>
<td>Rehabilitation Application – completed by you.</td>
<td></td>
</tr>
<tr>
<td>The Anaesthesia Patient Questionnaire – completed by you.</td>
<td></td>
</tr>
<tr>
<td>History and Physical form – completed by your family physician.</td>
<td></td>
</tr>
<tr>
<td>Copies of any recent blood work or diagnostic tests that you have had done outside of Markham Stouffville Hospital.</td>
<td></td>
</tr>
<tr>
<td>All medications you are taking at home in their original containers with the labels (include prescription eye drops and creams, herbal and over-the-counter medications).</td>
<td></td>
</tr>
<tr>
<td>MedsCheck from your community pharmacist if you are on 3 or more prescription medications.</td>
<td></td>
</tr>
<tr>
<td>A snack and drink as you will be at the hospital for 4-5 hours; this is particularly important if you have diabetes.</td>
<td></td>
</tr>
<tr>
<td>A family member, friend, or caregiver who will be helping you after surgery.</td>
<td></td>
</tr>
<tr>
<td>Translator - If your primary language is not English, please arrange to have a translator with you for all your appointments including on the day of your surgery.</td>
<td></td>
</tr>
</tbody>
</table>
INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

Sample Community Pharmacy Presentation
Discussion/Comments
Appendix D – Sample Community Pharmacist Discussion/Comments

Ottawa Carleton Pharmacist’s Association Education Meeting

Topic: Linking MedsCheck and Medication Reconciliation (14 October 2008 1830h)
Presenter: Margaret Colquhoun

Discussion points:

Questions from Community Pharmacists re: MedRec in Hospital

• What training do the hospital technicians receive?
• How are the patients selected?
• In what kind of time frame does the MedsCheck need to be performed prior to surgery?
• What kind of numbers should they expect?
• Is there involvement of the patient’s general practitioner?
• Who is responsible for management of the patient’s medications around surgery?
• What is the status of an electronic database for universal tracking of the histories?
• Is there any move to lobby for the indication of the medication to written on the prescription or on the pharmacy labels?

Comments:

• Faxing of the MedRec form to the community pharmacy when the MedsCheck appointment is requested (common form for all hospitals – posting forms on OCPA website)
• A telephone reminder to the patient to make an appointment with the community pharmacy 1 – 2 weeks prior to surgery (utilize hospital volunteers?)
• Bringing together groups for education around obtaining histories (posting Olavo’s slides or references on the OCPA website)
• Reminder to patients on discharge that a MedsCheck must/may be done again
• Reminder to patients that they must always be present, not just a family member
• Create a list of pharmacies in the area that are willing to do a MedsCheck
  o Have patient call own community pharmacy for appointment
  o If any problems, call the hospital back
  o Provide patient with list of community pharmacies willing to accommodate this service
• Individual pharmacists may understand and support this initiative but requires support from associates/managers.
• Contact owners, district/regional managers, managers of major chains. (Shoppers Drug Mart, PharmaPlus/Rexall, WalMart, Drugstore)
• Create links with area pharmacies – difficult with tertiary referral centres
• Communication strategy:
  o Public information campaign – create a skit for local TV, promote in local community papers.
  o Mail out to area pharmacists (700-900 pharmacists)
Examples of MedsCheck Personal Medication Records
Appendix E – Examples of MedsCheck Personal Medication Records

Hospitals were asked to submit a various sample of MedsChecks they received in the pre-admission clinics. Represented here is a range of MedsChecks of differing qualities with patient/pharmacy identifiers removed.

Example 1
Comment: This MedsCheck was written in English as well as the patient’s own native language to help the patient better understand their medications.
**Example 2**

Comment: This profile was electronically prepared and easy-to-read. This profile included non-prescription medications and is clearly labelled as a *MedsCheck*.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Route</th>
<th>Frequency</th>
<th>Last Fill</th>
<th>Reason for Use/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthroid</td>
<td>0.15mg</td>
<td>oral</td>
<td>once daily</td>
<td>2008-07-08</td>
<td>Thyroid</td>
</tr>
<tr>
<td>Lipitor</td>
<td>10mg</td>
<td>oral</td>
<td>once daily</td>
<td>2008-07-08</td>
<td>Hyperlipidemia</td>
</tr>
<tr>
<td>Crestor</td>
<td>3.2mg</td>
<td>oral</td>
<td>once daily</td>
<td>2008-09-01</td>
<td>Hyperlipidemia</td>
</tr>
<tr>
<td>Flonase nasal spray</td>
<td>50mcg</td>
<td>nasal</td>
<td>once to twice daily</td>
<td>2008-07-19</td>
<td>Allergy</td>
</tr>
<tr>
<td>Airius</td>
<td>5mg</td>
<td>oral</td>
<td>once daily</td>
<td>OTC</td>
<td>Allergy</td>
</tr>
</tbody>
</table>
**Example 3**

Comment: This medication profile, not identified as a *MedsCheck*, describes the tablet color and the medical indication for each medication. The information is also presented in a grid form to help the patient determine which medications to take at different times of the day.

<table>
<thead>
<tr>
<th>Name of Medicine</th>
<th>For</th>
<th>Description</th>
<th>Directions</th>
<th>1/2 hour before breakfast</th>
<th>Morning</th>
<th>Lunch</th>
<th>Supper</th>
<th>Bedtime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metformin 500mg (Gen)</td>
<td>Diabetes</td>
<td>White tablet</td>
<td>Take 1 tablet twice daily</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glibenclamide 5mg (Novo)</td>
<td>Diabetes</td>
<td>White tablet</td>
<td>Take 1 tablet twice daily</td>
<td>1.5/1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pioglitazone 45mg (Gen)</td>
<td>Diabetes</td>
<td>White tablet</td>
<td>Take 1 tablet daily</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norvasc 5mg</td>
<td>Blood pressure</td>
<td>White tablet</td>
<td>Take 1 tablet daily</td>
<td>1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amaryl 30mg</td>
<td>Blood pressure</td>
<td>White tablet</td>
<td>Take 1 tablet daily</td>
<td>1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lipitor 10mg</td>
<td>Cholesterol</td>
<td>White tablet</td>
<td>Take 1 tablet every other day</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lipitor 20mg</td>
<td>Cholesterol</td>
<td>White tablet</td>
<td>Take 1 tablet every other day</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zestor 10mg</td>
<td>Resins</td>
<td>Yellow tablet</td>
<td>Take 1 tablet daily</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carvedilol 3.13mg</td>
<td>Blood pressure</td>
<td>Red tablet</td>
<td>Take 1 tablet daily</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramipril 5mg (Novo)</td>
<td>Stomach</td>
<td>Yellow tablet</td>
<td>Take 1 tablet every other day</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Touch Ultra Test Strip</td>
<td>Check blood sugar level</td>
<td>Test strip</td>
<td>Use as directed</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example 4

Comment: This MedsCheck is written on the sample form created by the MOHLTC. Due to limited space, the last few medications are squeezed on the bottom of the page making it difficult to read. It may be helpful to have (_ of _ pages) on the template to accommodate patients with numerous medications who therefore use multiple pages. While there is information on what each medication is indicated for, there is no date to indicate when each medication was started and the allergy information is missing.
Example 5

Comment: While not identified as a MedsCheck, there is a patient signature at the bottom of the page with a pharmacist note. This electronically generated profile may be difficult to interpret as the computer generated directions are different than the written directions scribbled on the side.
Example 6
Comment: This profile is not identified as a MedsCheck and its patient instructions are written using Latin prescription abbreviations which may not be helpful for the patient to understand.

Example 7
Comment: While this profile is not identified as a MedsCheck, this is what the patient brought in when asked to obtain a MedsCheck from their pharmacy. It does not include allergy information and it is difficult to determine if a pharmacist consultation was actually done or if this was merely a dispensing record of a weekly blister pack.