Transitioning into the New Environment of Pharmacist Care: An Ontario Perspective

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INTRODUCTION

In recent years Ontario’s Ministry of Health and Long-Term Care (MOHLTC) has declared its intent to establish a “patient-focused, results-driven, integrated and sustainable publicly funded health system.”1 Primary health care, defined as the first point of contact between a patient and the healthcare system, is critical to the success of this ambitious goal. Pharmacists have been providing primary care services and conducting triage for patients with health concerns for many years, and have indicated a strong desire to collaborate more fully in a healthcare system that better utilizes their skills.

In Ontario, the following factors contribute to a healthcare system that is severely strained:

- an aging population with growing healthcare needs, including complex and multiple medication regimens;
- fewer family physicians needing to see more patients, resulting in limited consultation time with each patient;
- increasing wait times for healthcare services;
- increasing incidence of undiagnosed and suboptimally treated conditions;
- “orphan” patients (patients without family doctors) and underserved geographical areas; and
- lack of an electronic medical/health record (EMR/EHR) and therefore less than optimal communication among health professionals.

With overwhelming community-based healthcare needs and a greater recognition of the potential for pharmacist services in an environment of collaborative care by the provincial government, the time for embracing current expanded patient care services and preparing for future opportunities is now! The ultimate goal is a higher level of patient care in Ontario.

Review of implemented and proposed professional practice changes and opportunities in Ontario

In the coming years many changes will affect the way pharmacists practice. In Ontario, the evolution and acceptance of pharmacists working in multidisciplinary primary healthcare teams (Family Health Teams or FHTs) have been a landmark change for the profession. Working side by side with other healthcare professionals has resulted in an appreciation of the value of the pharmacist’s role in a team-based, patient-focused approach to care. In a community team-based environment, increased collaboration between family physicians,
nurse practitioners and pharmacists strengthens medication management resources. On a daily basis FHT pharmacists address a wide range of drug-related issues. The job descriptions of pharmacists in FHTs are unique for each practice site according to the needs of the FHT and the particular skills of the pharmacist. Ideally, FHT pharmacists work in collaboration with community pharmacists to meet the comprehensive medication management needs of patients.

Pharmacists practicing in community pharmacy settings often are not co-located to practice in or close to interdisciplinary teams. However, these practice settings offer many benefits in terms of patient accessibility and care:
- pharmacy in every community;
- extended hours of operation;
- usually the only complete list of medications;
- established relationships with many patients;
- no wait lists;
- very often the point of first contact for a patient; identification of medication and medical issues and appropriate triage;
- frequent contact time with many patients; and
- many opportunities for follow-up care.

MedsCheck™ programs
On April 1, 2007, the Ontario government introduced the MedsCheck™ Annual program. This patient-focused program provides an additional opportunity to utilize the pharmacists’ knowledge and patient care skills for any Ontarian taking three or more chronic medications. Although the specified outcome of the program is for patients to leave the pharmacy with an accurate and up-to-date medication list (also known as a best possible medication history), many other benefits of this program are apparent:
- empowers patient self-management through knowledge about, and a current and accurate list of, their current medications;
- builds a stronger relationship between pharmacist and patient;
- fills a large care gap in medicine (i.e., allows all health professionals to be “on the same page” with respect to a patient’s current medication regimen);
- provides opportunity for collaboration (developing practice-based initiatives which incorporate MedsCheck™ activities);
- provides valuable medication information integral to patient care;
- fosters medication information-sharing principles; and
- can reduce “drug misadventures” through uncovering of drug-related problems, and prevention of issues associated with prescriber not being fully cognizant of patient’s medication profile.

In 2008, the government introduced the MedsCheck™ Follow-Up program. This service allows pharmacists to help patients with their medications at transitions of care such as pre- and post-hospitalization. Also, it provides an opportunity to follow up with the patient if the need is identified by the physician, nurse practitioner or pharmacist. In the absence of an electronic health record and as scopes of practice expand for many regulated healthcare professionals, the MedsCheck™ list will be integral to the patient’s continuum of care.

The latest evolution of MedsCheck, MedsCheck™ Consult, is at the pilot stage (estimated to run until spring or summer 2010). This program represents an expansion of the MedsCheck™ Annual and MedsCheck™ Follow-Up medication review programs. A MedsCheck™ Consult would be conducted after a drug-related problem has been identified by the pharmacist (in the process of conducting a MedsCheck™ Annual or MedsCheck™ Follow-Up), by the patient’s physician, or by the patient or caregiver. The pharmacist would then send a report to the patient’s physician outlining the drug-related problem(s) identified and recommendation(s) for resolution of the problem(s).

The MedsCheck™ Consult will provide a standardized form for the pharmacist to outline the drug-related problem(s), the desired outcome(s), and the pharmacist’s recommended option(s) and potential follow-up to the physician (still under review). Drug-related problems will be categorized according to standard pharmaceutical care protocol into one of the following seven categories:
1. Therapeutic duplication; drug may not be necessary.
2. Requires drug; needs additional drug therapy.
4. Dosage too low.
5. Adverse drug reaction.
6. Dangerously high dose; potential overuse; abuse.

Both the physician and pharmacist will be paid a fee for the MedsCheck™ Consult program. The results of the pilot study will inform the future of the MedsCheck™ Consult program.

Bill 179: Regulated Health Professions Statute Law Amendment Act, 2009
On May 11, 2009, the Ontario MOHLTC issued a news release with the heading “Ontario Unleashes Potential in Health Care,” and later that day it proposed legislation that would increase access to care. Today that proposed legislation is known as Bill 179, and formally entitled the “Regulated Health Professions Statute Law Amendment Act, 2009.”

In most part the Bill was drafted from recommendations made by the Health Professions Regulatory Advisory Council (HPRAC) after comprehensive consultations with healthcare stakeholders. With respect to pharmacy, the submissions of the Ontario Pharmacists’ Association (OPA) and the Ontario College of Pharmacists (OCP) were among the most important, and were for the most part in symmetry with each other. Their submissions may be accessed at:
- Ontario Pharmacists’ Association
- Ontario College of Pharmacists

In its final report to the MOHLTC, entitled “Critical Links: Transforming and Supporting Patient Care,” HPRAC made recommendations as outlined in Figure 1.

HPRAC also recommended that steps be taken towards the introduction of a minor ailments program in Ontario. To that end, HPRAC recommended that the OCP and the OPA lead a working group in collaboration with the Ontario Medical Association, the College of Physicians and Surgeons of Ontario, the College of Nurses of Ontario, the Registered Nurses Association of Ontario, the Nurse Practitioners Association of Ontario, other health professions, facilities, educators and ministry representatives. This group would develop the details of a program that would...
of practice can be looked upon as a continuum of change in the team-based healthcare setting. Further expansion of pharmacist scope of practice will depend on how well pharmacists embrace and implement the current proposed changes and how patient and population public-health outcomes benefit as a result.

What is meant by the term “prescribing”? The interpretation of the word “prescribing” and what it entails has been the source of much confusion over the years. Some have interpreted prescribing to include diagnosis, which has raised concerns. However, when used in the context that HPRAC has adopted in its recommendations, one can appreciate that pharmacists have been “prescribing” for years (e.g., when pharmacists recommend nonprescription medications to patients). According to the Alberta College of Pharmacists, which was the first to implement regulations around pharmacist prescribing in 2007, pharmacist prescribing describes a wide range of activities, including:

- prescribing drugs to treat minor, self-diagnosed or self-limiting disease conditions;
- adjusting dosages and dosage forms;
- monitoring and refilling prescriptions to ensure appropriate and effective care;
- providing emergency supplies of previously prescribed medication; and
- comprehensive drug therapy management where the pharmacist, working with other health professionals, takes full responsibility for establishing and maintaining a patient’s chronic drug therapy.

For a pharmacist to prescribe they must have the competency and the appropriate information to fulfill the activity safely and effectively.

Electronic health records and ePrescribing
Electronic health records (EHRs) will form a cornerstone of communication among health professionals and their patients in the years to come. Access to a patient’s EHR will facilitate medication reconciliation, confirmation of medication indication and pharmacist participation in monitoring and disease management programs. The eMRxtra program in Sault Ste. Marie, a collaborative venture between the Ontario Pharmacists’ Association, the Group Health Centre and Canada Health Infoway, provides a snapshot into the benefits and challenges of incorporating this technology into practice.

Several Ontario pharmacists are involved in Ontario’s first ePrescribing demonstration project, to help inform how this aspect of Ontario’s eHealth platform will be built.

ePrescribing is the process of generating, authorizing and transmitting electronic prescriptions from doctors and other prescribers to pharmacists and other dispensers within a secure environment. Electronically transferred prescriptions are an alternative to handwritten prescriptions (thereby reducing risk associated with interpretation of handwriting) and facilitate the delivery of prescriptions to pharmacies.

Two sites are involved in the demonstration project:
- Group Health Centre in Sault Ste. Marie and local community pharmacies
- Georgian Bay Family Health Team in Collingwood and local community pharmacies

Through this initiative, eHealth Ontario will examine workflow, change management requirements, regulation guidelines and the impact on physicians, nurse practitioners, pharmacists and

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**Figure 1: HPRAC’s Recommended Changes to Pharmacist Scope of Practice**

1. That pharmacists be authorized to prescribe drugs for the purposes of medication therapy management. Within this authority, pharmacists could adapt, modify and extend an existing prescription.
2. That pharmacists be authorized to initiate therapy for smoking cessation, including prescribing Schedule I drugs.
3. That pharmacists be authorized to administer drugs through injection and inhalation for the purpose of patient education and demonstration.
4. That pharmacists be authorized to perform a procedure on tissue below the dermis for the limited purpose of patient self-care education and chronic disease monitoring, including the use of lancing-type devices (i.e., for the management of diabetes).
5. That pharmacists be authorized to order laboratory tests for the purpose of medication monitoring and management.
6. That pharmacists not be authorized to independently initiate therapy for travel prophylaxis.
7. That pharmacists not be authorized to prescribe Schedule II and III drugs solely for the purposes of patient reimbursement under an insurance plan.
8. That pharmacists not be authorized to perform routine immunizations.

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be suitable in Ontario, including: the list of minor ailments that pharmacists could treat; an agreed formulary of minor ailments including Schedule I, II, and III drugs; protocols for referral to and communication with other health professionals, obtaining of patient consent, and record-keeping; options for reimbursement for professional services; and educational and competency requirements and quality assurance, among other matters.

The legislation as proposed, or Bill 179, broadly accepts the recommendations of HPRAC. Although HPRAC did not recommend that pharmacists be authorized to perform routine immunizations at this time, it did indicate in its report that “it is in the public interest to ensure that pharmacists have the core competencies to undertake these activities when needed for emergencies.” The wording of the Regulated Health Professions Statute Law Amendment Act is broad enough to allow for regulations to empower this activity in the future. To review Bill 179, go to: http://www.ontla.on.ca/bills/bills-files/39_Parliament/Session1/b179.pdf (pages 25-27)

After approval and implementation, the Act will further expand the role of the pharmacist in Ontario. The changes to scope of practice/controlled acts are significant. The new scope of practice acknowledges the pharmacist’s role in promotion of health, prevention and treatment of disease, and in monitoring and management of medication therapy. Also, pharmacists will be granted several new authorized acts, including prescribing of drugs as specified by regulations, administering a substance by inhalation and performing a procedure on tissue below the dermis. Integrating the changes facilitated by Bill 179 into daily practice will improve access to care, fill identified care gaps in the healthcare system, and provide further prospects for building important relationships with our patients and healthcare colleagues.

In many ways the changes enabled by Bill 179 are an acknowledgment of pharmacists’ skills that have not been formally recognized or are currently underutilized. The expansion of scope
patients. Research from the demonstration project will guide the future implementation of a province-wide ePrescribing system, a key component of Ontario’s eHealth strategy. Ideally, ePrescribing technology will alert the prescriber to issues such as drug duplication, drug interactions and allergies. In addition, the electronically transmitted prescription would automatically populate appropriate fields in the receiving pharmacy’s patient file. ePrescribing is expected to dramatically improve patient safety and quality of care by reducing prescription errors and facilitating an enhanced level of communication between healthcare providers—largely by replacing current, and often inefficient, methods of communication (i.e., by phone, fax).

**Public health**
The role of the pharmacist in public health is growing and increasingly recognized by government and other health professionals. For example, government has come to regard the pharmacist’s involvement in pandemic planning as invaluable. Pharmacists have the necessary training and knowledge to play an increasingly important role in addressing public health concerns such as H1N1. The Ontario government has previously asked pharmacy to act as a distribution point for public information and education materials on West Nile virus, flu shots and other important public health matters. Most recently, pharmacies have been asked to be the distribution depots for H1N1 antiviral treatments by the Ontario MOHLTC.

**Other professional services**
Outside of government programs, pharmacists have developed numerous professional services to help patients with their care. Patient programs for diabetes, asthma and COPD, hypertension, smoking cessation, weight management and medication management are growing throughout the province. In fact, the 2009 Trends & Insights Survey of Pharmacists (Healthcare Group, Rogers Publishing) reports that 43 per cent of pharmacists describe themselves as personally providing expanded professional services. The top three services identified were diabetes care, medication reviews and smoking cessation.

With the imminent graduation and integration of regulated pharmacy technicians, pharmacists will be able to move further away from direct involvement in drug distribution and focus more closely on patient-centred care. In light of the changes outlined above, pharmacy organizations and governments are reviewing, challenging and debating issues of economic sustainability and payment for both drug distribution services and pharmacists’ professional services. These important patient services should not be undervalued and need to reflect a fair and economically viable model.

The growing need and opportunities for direct patient-focused care are abundant. Enhanced pharmacist professional services have the potential to fill care gaps, improve patient outcomes, and foster tremendous professional satisfaction.

It seems that the “future” is finally arriving!

**Am I ready to take on new responsibilities?**
By nature, people approach change in different ways. Some embrace it, but many can become quite anxious when the “way we have always done things” needs to change. Regardless of how change is approached, the evolving Ontario pharmacy practice model will require pharmacists to do things differently if they want to take advantage of the emerging opportunities.

Common elements of models of change include the following:

- development of a vision and goals;
- communication with stakeholders;
- attainment of a commitment from those involved;
- identification of resources and infrastructure required;
- identification of individual attitudes, behaviours and motivation to change;
- external motivation; and
- ongoing evaluation and quality control to ensure the goals of change are met.

Of the elements listed and within the context of pharmacy practice, it would appear that commitment and motivation to change are likely less of a challenge than resources and infrastructure issues.

The launch of the MedsCheck™ Annual program represented an important introductory opportunity for practice change. Opinions differ as to how well Ontario pharmacists embraced this change. On one hand, reports indicate that more than 450,000 Ontarians have received a MedsCheck™ interview (Annual or Follow-Up), which sounds like a reasonable number. On the other hand, the number represents a small percentage of individuals in Ontario who are eligible for the service (i.e., taking three or more medications).

A review of the program, based on surveys conducted by Dolovich et al. in Hamilton, Ontario, identified a number of facilitators and barriers to delivering the MedsCheck™ service. Facilitators included pharmacist overlap coverage, scheduling reviews during slower times, personally inviting patients to participate, reducing paperwork and using electronic or paper-based tools. Pharmacists perceived that the MedsCheck™ service improves relationships with area physicians and improves patient health outcomes, adherence to medication and knowledge of medications. Pharmacists also reported an increase in job satisfaction. The biggest barriers cited by respondents were lack of time and a workflow that did not lend itself to providing the service. To review the study, which includes a checklist of practical recommendations to assist the implementation and delivery of MedsCheck™, go to: http://www.cpjournal.ca/archive/1913-701X/141/6/pdf/1913-701X-141-6-339.pdf

Certainly, a sound business case needs to be made if a pharmacy is to seriously undertake a program such as MedsCheck™. For a $50 fee to be profitable, a pharmacy must complete at least two MedsCheck™ Annual interviews in one hour. Suggested strategies to help this occur include:

1. **Be prepared.** Have a pharmacy technician prepare a patient background form (see website listed in point 11 for template) and Personal Medication Record as completely as possible before patient arrives.
2. **Ensure the patient goals of the consult are met.**
3. **Be punctual and ensure the patient understands how much time you have together.** Start with an explanation of the goals of the program and a reminder of time available to complete the interaction.
4. **Ensure that you will not be interrupted.** Make sure staff know that you are not to be interrupted unless absolutely necessary.
5. **Stay on task with conversation.** Do not get side-tracked with personal conversation. If patient tries to get off topic, bring conversation back to task at hand.
6. **Avoid confrontation and alarming the patient.**
7. **Keep language simple.**
8. Keep your patient positively engaged. Use open-ended questions and emphasize the importance of each medication. Empower the patient’s own motivation for remaining adherent with medications.

9. Promote the team. Always support the prescribing physician. If there is a question regarding appropriateness of therapy explain that the doctor had their reason for prescribing the medication that way and you will follow up to inquire whether or not those circumstances still exist.

10. End the interview on time in a polite and positive manner. Be aware of the time and develop a strategy that does not leave the patient feeling like they have been rushed or put out.

11. Be efficient, consistent and accurate in documentation. Be sure to use a template for documentation you are comfortable with and file in a retrievable manner. Notes to physicians should be to the point but include all pertinent information. To help you with these tasks, the Drug Information and Research Centre offers protocols and templates at: www.dirc.ca/index.php?option=com_content&view=article&rd=76&Itemid=101

To review the full article, “Ten Top Tips for Effective and Efficient Medication Reviews,” go to: http://www.ontariophr.ca/pdf/Meds_Review_10_Tips.pdf

Beyond being efficient with the patient interview itself, the implementation of additional professional services, which promise to be even more time-consuming, represent much bigger challenges in terms of practice change. Those pharmacy teams most likely to succeed in successfully implementing these professional services into their daily practice will do so by engaging in the following activities:

• assessing workflow to streamline pharmacy dispensing;
• engaging the pharmacy team to brainstorm ideas to facilitate the provision of professional pharmacy services;
• implementing regulated pharmacy technician dispensing to its full potential;
• encouraging professional growth by promoting and facilitating participation in certification programs, such as those offered by the Ontario Pharmacists’ Association (see http://www.opatoday.com/live.asp); and
• developing a sound business plan which takes into account all related expenses and remuneration with respect to providing professional services. Continuing education lessons are available to help in this regard. For example, see “Essential Business principles in preparation for expanded services in pharmacy practice” at http://www.pharmacygateway.ca/pdfs/CE/2007/ce_Novo_en_nov07.pdf.

Finding the time

Integrating private consultations into everyday practice can be a challenge. Utilizing the pharmacy team’s ideas and expertise in managing pharmacy operations efficiently should enable additional “protected time” for counselling. Suggestions for “finding the time” include:

• Teaching and empowering pharmacy technicians to serve patients well, and to interrupt pharmacists only when it is deemed necessary.
• Booking consultations during typically slower periods of prescription volumes; for example, in some practices, Wednesday afternoons may be slower because physicians’ offices are closed.
• Brainstorming with the pharmacy team often can result in practical and insightful solutions to challenges that may be unique to a practice. For example, the team can assess the workflow from intake of the prescription to patient receipt.
• Implementing new ways to accept prescription renewals, such as online or automated phone renewals, or encouraging patients to call several days ahead for refills.

Case studies

The following case studies depict patient care scenarios in a community pharmacy practice in Ontario in the near future. It illustrates how a pharmacist may choose to provide care under an expanded scope of practice. Whether or not the pharmacist chooses to exercise prescribing authority, good patient management always includes education, monitoring and physician follow-up as required. This case is intended for illustration purposes only, and explores how an individual pharmacist might manage a specific situation with a specific patient. It is not meant to imply that these decisions are appropriate for all situations.

Case study 1

NL is an active 80-year-old man. He and his wife of 55 years live together in their house and have two grown children. At age 75, NL suffered a myocardial infarction and underwent quadruple coronary bypass surgery. Since that time, he remains remarkably healthy.

He arrives today for a scheduled MedsCheck™ Annual appointment.

You explain that the goal of the session is to review his medications with him and create a medication list that is accurate and up-to-date. You double-check that the allergies and medical conditions you have on file for NL are correct. You compare the computer-generated medication list prepared for you by your pharmacy technician with the medications brought in by NL:

<table>
<thead>
<tr>
<th>Pharmacy computer medication list</th>
<th>Medications in NL’s bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atorvastatin 80 mg daily</td>
<td>Atorvastatin 80 mg daily</td>
</tr>
<tr>
<td>Ezetemibe 10 mg daily</td>
<td>Ezetemibe 10 mg daily</td>
</tr>
<tr>
<td>Ramipril 10 mg daily</td>
<td>Ramipril 5 mg daily</td>
</tr>
<tr>
<td>Hydrochlorothiazide 12.5 mg daily</td>
<td>Hydrochlorothiazide 12.5 mg daily</td>
</tr>
<tr>
<td>Metoprolol 50 mg bid</td>
<td>Metoprolol 50 mg bid</td>
</tr>
<tr>
<td>Coated ASA 81 mg daily</td>
<td>Coated ASA 81 mg daily</td>
</tr>
</tbody>
</table>

You note the discrepancy regarding the ramipril in the prescription medication record.

In speaking with NL in this MedsCheck™ interview you ensure that you have obtained the answers to the questions in Figure 2 (i.e., you use it as a checklist).

When asking NL about vitamins he suddenly remembers that he takes cod liver oil capsules every morning and forgot to bring them in. You enter that on his medication record and on his Best prescription medication record.

You remark that NL’s ramipril medication contains 5 mg capsules, although his latest prescription increased the dose to 10 mg. NL responds that “The doctor told me to use up the old
For each medication (hold medication in hand as inquiries are made)
1. How do you take ______________________ (medication name)
2. At what times of day do you take ______________________ (medication name)

Ensure that information about dose, route and frequency is gathered for each drug. Record how the patient is taking the medication and note any discrepancies (see Best Possible Medication History).

- Have you or your doctor recently stopped one of your medications or changed how you take your medications? If so, what was the reason for the change?
- Do you take any medications that you can buy without a doctor’s prescription? For example, Aspirin or vitamins or calcium? If yes, how do you take these medicines?
- Do you use any eyedrops, or nose drops or nose sprays? If yes, how do you use them?
- Do you use any inhalers? If so, how do you use them?
- Do you use any medicated patches or creams or ointments? If yes, how do you use them?
- Do you use any injectable medicines? If yes, how do you use them?
- Have you used any antibiotics in the past 3 months? If so, what are they?

*Adapted from ISMP Canada, safer healthcare now!,
UHN Medication Reconciliation Task Force
- Best Possible Medication History Online at http://www.qhn.ca/pdfs/MedRecLTC/
best_possible_medication_history_interview_guide.pdf

ones by taking two a day. You check the date on the bottle and confirm that the contents are not expired. You make a note on NLs file in case the pharmacist filling the next refill notices a late refill date on the ramipril 10 mg prescription. You remark to NL that although it is good not to waste medications, in most cases when a prescription changes, or when medications are no longer being used, they should be brought back to the pharmacy for proper disposal. This also helps prevent taking the wrong medication in error. You remind NL to use the prescription number from the last ramipril 10 mg prescription when it’s time for him to order more medication from the pharmacy.

You note that NLs last refill of 60 metoprolol 50 mg tablets (30 days’ supply) has lasted over 50 days. You invite NL to explain once again how he takes his metoprolol.

NL states that he always remembers to take his morning medications, which include metoprolol. However, he admits that he cannot remember to take the second dose at dinner time. Several months ago, he joined a seniors’ bowling league in the late afternoon and his dinner times are not as regular as they used to be. Although he uses a dosette to organize and manage his medications, he simply forgets to take the second tablet. Because of missing so many doses, he has lots of medication left over.

You advise NL that missing this second dose of metoprolol over that past few months may contribute to increased blood pressure and less protection against another heart attack. According to the 2009 Canadian Hypertension Education Program (CHEP) Guidelines, the treatment goal for his blood pressure should be <140/90 mmHg. You ask NL if he has had a blood pressure reading lately, and he replies that as a matter of fact his doctor was not too pleased the last time she took his blood pressure. He shows you a slip of paper from his doctor indicating that his reading at last week’s appointment was 159/86 mmHg, which is higher than it has been for the last six months. The doctor wants him to return in a month for another blood pressure reading to see if she needs to add a medication to NLS regimen.

What can you do to help NL?
The passing of Bill 179 would permit a pharmacist to adapt prescriptions in accordance with their scope of practice as a means of ensuring optimal outcomes for a patient. This example is meant to explore how a pharmacist might engage in this new practice framework.

Adherence to a twice-daily dosing regimen has become difficult for this patient. You ask NL if he would like you to make a suggestion that may resolve this dilemma. NL is appreciative of your time and is eager to hear your recommendation.

You advise NL that metoprolol is available in a once-a-day, longer-acting formulation. He could take this tablet once in the morning and still receive the same amount of medication as the twice-daily formulation. This would ensure a more consistent level in his bloodstream, which in turn should result in consistent blood pressure readings that are at target. By doing this, he will not miss any more doses and the results of the medication will be optimized. When he attends his doctor’s appointment next month to check his blood pressure, he will have had a trial of this simplified regimen for 30 days and the benefits would be assessed at that appointment.

You ask NL if he has any questions. NL has none and is pleased that he will no longer miss any more doses. He agrees to the adaptation.

You adapt his current regimen of metoprolol 50 mg bid to metoprolol S.R. 100 mg qam. This change simplifies the dosing schedule of the beta blocker by eliminating a second dosing time at dinner while maintaining the same total daily dose.

You document your adaptation—see Figure 4 as an example, developed by the College of Pharmacists of British Columbia (CPBC) for prescription adaptations in that province. You fax or email this to NLS doctor, indicating that non-adherence may have been responsible for the increase in NLS blood pressure. You update his current medication profile to reflect this change. You discontinue the metoprolol 50 mg bid prescription so that it may not be renewed by the patient in error. You provide NL with his MedsCheck™ Personal Medication Record, which includes his new metoprolol dosing regimen and his cod liver oil capsules in addition to other medications already on file.

What steps must be followed to adapt the prescription?
At the time of publication of this lesson, regulations for prescription adaptations were pending, following the passage of Bill 179 into legislation. As part of this case study, this lesson will consider existing regulations in B.C., where pharmacists began adapting prescriptions in January 2008. It is likely that Ontarios regulations will contain similar elements (just as B.C.’s are similar to Albertas, where pharmacist prescribing took effect in April 2007).

B.C.’s Professional Practice Policy #58, entitled “Protocol for Medication Management – Adapting a Prescription” and developed by the CPBC, guides pharmacists in the safe and effective adaptation...
Figure 3: MedsCheck Personal Medication Record Template

<table>
<thead>
<tr>
<th>MedsCheck PERSONAL MEDICATION RECORD</th>
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<tbody>
<tr>
<td>Whenever you see a doctor, including your primary care physician and any specialists, review and update this medication list.</td>
</tr>
<tr>
<td>After any hospitalization, check with your doctor or pharmacist to review this medication list.</td>
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<thead>
<tr>
<th>Start Date</th>
<th>Name of Medication</th>
<th>Strength</th>
<th>How to take this medication</th>
<th>Purpose</th>
<th>Comment</th>
<th>Prescribed By</th>
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<tr>
<td>dd/mm/yyyy</td>
<td>Brand &amp; Generic Name</td>
<td>Quantity</td>
<td>Route</td>
<td>Frequency</td>
<td>Food</td>
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Allergies: No known allergies

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<th>Product</th>
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Pharmacist Signature  Patient Signature

It also states that the decision to adapt a prescription is at the discretion of the individual pharmacist.

The policy sets out seven essential elements that must be fulfilled when adapting a prescription. These elements will be explained in the context of this case study:

1. **Individual Competence** You understand the condition being treated and the drug being prescribed. You are familiar with the 2009 CHEP guidelines and feel competent in your ability to determine what is in the best interest of this patient.

2. **Appropriate Information** You know that the decision to change the medication regimen will not put NL at risk. You have results of his lab tests and a recent blood pressure reading. The patient is very willing to share information with you.

3. **Prescription** You have an original prescription for metoprolol 50 mg bid.

4. **Appropriateness of adaptation** In your professional opinion, you are certain that this adaptation will optimize the therapeutic outcomes. NL has stated that he is adherent and persistent to his once-a-day, morning medications.

5. **Informed Consent** A patient’s consent must be voluntary. The patient must have the capacity to consent. You explain that you have the authority to adapt his prescription by changing the formulation from short-acting to long-acting. You explain the risks and benefits. You ask NL if he would like you to adapt his prescription, and he indicates his consent by saying yes.

6. **Documentation** You complete the documentation required for prescription adaptations. As an example, Figure 4 is a template of a documentation form developed by the CPBC (www.bcpharmacists.org).

7. **Notification of other health professionals** You fax the completed documentation to NL’s physician within 24 hours of adapting the prescription. It is important to remember that although this activity may not require prior consultation with the physician, collaboration is encouraged. Any modifications to therapy must be communicated with the prescriber and other relevant healthcare providers to ensure that the circle of care is complete.

You counsel NL to begin this new regimen tomorrow. You advise him that you would like to follow up by telephone in three days to see how he is feeling and NL agrees. You also encourage him to self-monitor and record his blood pressure either at home or at your pharmacy about once a week until he sees his doctor, and you review how to take blood pressure properly. By taking his own blood pressure, NL becomes more involved in his own treatment therapy and better informed about how the medication is working. You thank NL for his time and encourage him to call you if he has any questions.
**Pharmacist Prescription Adaptation Documentation and Notification Form**

<table>
<thead>
<tr>
<th>Patient Information</th>
<th>Pharmacist Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Name:</td>
</tr>
<tr>
<td>PHN:</td>
<td>Pharmacy:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prescriber Information</th>
<th>Adaptation Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Date of Adaptation:</td>
</tr>
<tr>
<td>Phone:</td>
<td>Adaptation Details:</td>
</tr>
<tr>
<td>Fax:</td>
<td></td>
</tr>
</tbody>
</table>

**Rationale for Adaptation (including instructions to patient and follow-up plan)**

Rationale

Instructions to Patient

Follow-up Plan

**Informed Consent**

The patient and/or their representative (name: ) was provided sufficient information, including the risks and benefits associated with the adaptation and voluntarily provided their consent.

**Notification Information**

Date of Notification: Name of Practitioner(s) Notified:

Method of Notification (fax preferred):

- [ ] Fax #
- [ ] Phone #
- [ ] Other

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Source: College of Pharmacists of British Columbia
Case study 2

JS, a 55-year-old automotive worker, has been a patient of your pharmacy for 15 years. During that time he has been receiving medications for treatment of dyslipidemia and hypertension on a regular basis. JS has recently been diagnosed with type 2 diabetes and now also receives antihyperglycemic treatment. He has a BMI of 30.5 kg/m² and is trying to be more active and follow the nutrition plan that he has designed in collaboration with his dietitian. JS has smoked approximately one package of cigarettes daily since his late teenage years. He quit five months ago but has just recently started smoking again. You had been instrumental in helping him quit, using your additional training in smoking cessation.

Today, JS is coming to see you for a scheduled MedsCheck™ Consult. You had conducted a MedsCheck™ Annual for John two weeks ago and identified that his LDL cholesterol was not at target and invited him back for a MedsCheck™ Consult: John has brought in his medications and his MedsCheck™ Medication List with him. After greeting John you begin by asking him if anything has changed with respect to his medications. He responds that nothing has changed but sheepishly tells you that he has started smoking again.

Without showing any signs of judgment, you ask John what triggered him to smoke again. He tells you that he was at a party with some friends who still smoke and they offered him a cigarette after he had indulged in a few drinks.

JS adds that he had been using the nicotine patches you recommended. They worked pretty well but caused some skin irritation so he stopped using them about six weeks after he started. He still had cravings, including wanting something in his hand. Therefore a logical approach to another smoking cessation attempt would be to discuss methods to avoid temptation (let friends know you are trying to quit, walk away from areas where people are smoking, etc.) and to prescribe the nicotine inhaler. You would offer this recommendation, including the rationale behind it, to JS and continue to fine-tune the care plan until he is satisfied and motivated to engage. Your continued support as well as support from family and friends would be critical.

You also note that his liver enzymes and creatinine clearance are in the normal range. His most recent fasting plasma glucose was 5.8 mmol/L, which is on the high side but not in the Canadian Diabetes Association's range for impaired fasting glucose.

You inform JS that his LDL cholesterol is not at target (<2.0 mmol/L for high-risk patients) and remind him that he is in the high-risk 10-year cardiovascular risk category (>20% risk for non-fatal myocardial infarction or stroke or death due to any coronary artery disease-related event according to Framingham Risk Assessment). Quitting smoking would help reduce his risk substantially, but in the meantime a strategy should be put in place to lower his LDL cholesterol.

What can you do to help JS?

In reality you have already done quite a bit to help JS back on the road to being smoke-free once again. Your supplemental training in smoking cessation had prepared you for the possibility that JS would relapse and how he could learn from that experience. Importantly, you did not judge JS; however, you did let him know of the potential consequences of smoking again, including the fact that it contributes significantly to his cardiovascular risk. He will remain convinced that you have his best interests at heart and that you are a caring advocate.

As outlined earlier, HPRAC’s submission to the Ontario Minister of Health and Long-Term Care included a recommendation enabling pharmacists to initiate therapy for smoking cessation, including prescribing Schedule 1 drugs. This and all recommendations assume that the pharmacist is trained and competent in any area of professional service provided to patients. In addition, the legislation as proposed would include defined protocols to outline the particular circumstances in which prescribing may be undertaken and/or prohibited.

In this case JS has told you that alcohol and a social atmosphere were the triggers for his relapse. Although nicotine replacement seemed to help, the patch gave him a rash and he also missed having something in his hand. Therefore a logical approach to another smoking cessation attempt would be to discuss methods to avoid temptation (let friends know you are trying to quit, walk away from areas where people are smoking, etc.) and to prescribe the nicotine inhaler. You would offer this recommendation, including the rationale behind it, to JS and continue to fine-tune the care plan until he is satisfied and motivated to engage. Your continued support as well as support from family and friends would be critical.

JS Medication Record

<table>
<thead>
<tr>
<th>Start Date</th>
<th>Medication</th>
<th>Dosage</th>
<th>Route</th>
<th>Frequency</th>
<th>Scheduled times</th>
<th>Purpose for use</th>
<th>Physician (prescriber)</th>
<th>Stop date</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/05/06</td>
<td>Levothyroxine</td>
<td>0.15 mg</td>
<td>po</td>
<td>1 qam</td>
<td>7 am</td>
<td>Thyroid</td>
<td>Dr. A. Smith</td>
<td></td>
</tr>
<tr>
<td>05/07/06</td>
<td>Pravastatin</td>
<td>40 mg</td>
<td>po</td>
<td>1 qam</td>
<td>7 am</td>
<td>Cholesterol</td>
<td>Dr. A. Smith</td>
<td></td>
</tr>
<tr>
<td>06/08/08</td>
<td>Ramipril</td>
<td>10 mg</td>
<td>po</td>
<td>1 qam</td>
<td>7 am</td>
<td>Blood pressure</td>
<td>Dr. A. Smith</td>
<td></td>
</tr>
<tr>
<td>11/22/08</td>
<td>Amlopidine</td>
<td>5 mg</td>
<td>po</td>
<td>1 qam</td>
<td>7 am</td>
<td>Blood pressure</td>
<td>Dr. A. Smith</td>
<td></td>
</tr>
<tr>
<td>07/05/09</td>
<td>Zopiclone</td>
<td>5 mg</td>
<td>hs pn</td>
<td></td>
<td>7 am, lunch, supper</td>
<td>Osteoarthritis</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>07/07/09</td>
<td>Glucosamine</td>
<td>500 mg</td>
<td>po</td>
<td>tid</td>
<td>Daily</td>
<td>Change each am</td>
<td>Smoking cessation</td>
<td>10/15/09</td>
</tr>
<tr>
<td>08/09/09</td>
<td>Nicotine patch</td>
<td>21 mg</td>
<td>Trans dermal</td>
<td>Daily</td>
<td>7 am, supper</td>
<td>Diabetes</td>
<td>Dr. A. Smith</td>
<td></td>
</tr>
<tr>
<td>09/09/09</td>
<td>Metformin</td>
<td>500 mg</td>
<td>po</td>
<td>bid</td>
<td>7 am, supper</td>
<td>Diabetes</td>
<td>Dr. A. Smith</td>
<td></td>
</tr>
</tbody>
</table>

*Adapted from Ontario College of Pharmacists at http://www.ocepinfo.com/client/ocep/CPHome.nsf/d1259ce436a11716585256ae90065aa1c/dfbe9381486223c1852970aa006757740?OpenDocument
to the success of the quit attempt.

While Ontario’s regulations for prescribing won’t be developed until Bill 179 has passed into legislation, pharmacists in Ontario can look to Alberta for possible guidance. Alberta is the first and only province in Canada to permit initial-access prescribing by pharmacists, for those who have received additional prescribing authorization (in addition to the authority, available to all pharmacists in the province, to adapt prescriptions and prescribe in emergencies).

The Alberta College of Pharmacists lists a number of key activities for initial prescribing activities. They include (see reference for comprehensive list): 13

• **Form and maintain a professional relationship with the patient**
  - Pharmacist has known the patient for a sufficient period of time and/or the pharmacist has gathered enough information about the patient to allow the pharmacist to work with the patient to optimize the patient’s health and drug therapy.
  - Patient and/or the patient’s agent is given an opportunity to describe health problems, articulate needs and ask questions.

• **Assess patient**
  - Patient’s signs and symptoms are appropriately evaluated.
  - Patient’s needs and health outcomes are identified and discussed.
  - Patient’s demographics, medical and treatment history are obtained from patient and/or reliable sources.
  - Information provided by patient and other reliable sources is recorded and documented.
  - Actual or potential drug-related problems are identified.
  - Mutual goals of therapy are discussed and established.

• **Develop and implement care plan**
  - Care plan options/recommendations are developed with patient to meet mutual goals of therapy.
  - Therapeutic decisions are made to maximize patient health outcomes and safety.
  - Rationale for prescribing decisions is clearly articulated and explained.

• **Follow up with patient to monitor progress**
  - Changes in health outcomes/status are monitored within an appropriate timeframe and documented.
  - Modifications to care are made to maximize health outcomes and minimize risk to patient.
  - Follow-up plan is detailed and includes monitoring parameters, expected outcomes, and timeframes.

• **Document patient information, assessment, interventions and communications with other regulated health professionals**
  - Prescribing decisions reflect best practices and/or are evidence-based.
  - Drug-related problems selected for intervention are dealt with appropriately.

You ask JS how he is doing with diet and he says his wife has been keeping him on a healthy diet since he has been on the cholesterol pills, although he might have the odd unhealthy snack at work. He also offers that he is still walking about 45 minutes four times a week in the evening with his wife. He seldom forgets to take his dose of pravastatin.

Since JS seems to be maintaining his lifestyle modification plan you determine that it is likely time to increase his statin dose. At this time you deem it best to make a recommendation to JS’s doctor to change the statin to one that is more potent. On the MedsCheck™ Consult form (template still under development) you indicate the drug-related problem as “Dosage too low.” You then give a brief rationale and recommend a more potent statin (e.g., rosuvastatin 20 mg daily). In speaking with JS about your recommendation, your rationale and the benefits and risks of therapy, he agrees.

As a result of a MedsCheck Consult one of the following outcomes or responses will be expected: 14

1. The physician provides additional information to the pharmacist and no further action is required.
2. Recommendations by the pharmacist may be discussed with the physician to address the identified concern. This may result in a change to the patient’s medication therapy.
3. The physician may determine that more information and analysis are necessary. This may require the physician to provide further data and/or clinical information to the pharmacist, who in turn will follow up with the physician in order to finally resolve the issue.

You ask JS if he has any other concerns about his medications. JS tells you that Dr. Smith is away for two weeks and he won’t be able to get an appointment for about five weeks. He remarks that he will run out of his levothyroxine tablets in a few days and does not have any refills. You review JS’s labs and note that his TSH is in the normal range and his refill history shows that he has been on the same dose of medication for over three years. You authorize an extension of his medication for 30 days and document according to the requirements of legislation.

Pending legislative approval, pharmacists in Ontario will be able to extend prescriptions under particular circumstances. Using New Brunswick as an example, where pharmacists became able to authorize “continued care prescriptions” as of October 30, 2008, the following principles apply: 15

1. Continued care prescriptions cannot and do not take the place of ongoing medical care.
2. Each request for a continued care prescription must be judged on the individual nature of the patient’s need and that patient’s history.

**Summary**

In a relatively short period of time, the Ontario government has introduced many opportunities for pharmacists to expand their professional services to patients. However, change is seldom easy. In order to embrace and implement new ways of practicing, pharmacists must be willing to make changes that provide appropriate space, time and resources for expanded services. This inherently speaks to a sound business model that takes into account expected revenue from services and a realistic estimation of costs required to deliver those services. As pharmacists’ time promises to represent a high percentage of the costs, the keys to success include sound communication skills and the effective use of supporting staff and technology.

Once these challenges are met, the implementation of new professional services promises not only to be rewarding professionally, but also, and most importantly, it promises to enhance the quality of patient care.

These are exciting times for pharmacy practice in Ontario. Expanded pharmacist services in an environment of team-based care will emerge as an important component of Ontario’s plan for improved patient access and quality of care.
1. Which of the following factors is NOT severely straining the healthcare system in Ontario?
   a. An aging population
   b. A large number of orphan patients
   c. A paucity of pharmacies
   d. Lack of reliable communication between health professionals

2. Which of the following is a requirement of the MedsCheck™ program in Ontario?
   a. Patients must be taking five or more medications
   b. Patients must be an Ontario Drug Benefit recipient
   c. Patients must leave the pharmacy with an up-to-date medication list
   d. Answers a and c are correct

3. Which of the following will be necessary in order to conduct a MedsCheck™ Consult?
   a. The prior completion of a MedsCheck Annual
   b. The identification of a drug-related problem
   c. Any request from a patient is sufficient
   d. Answers a and b are correct

4. You are conducting a MedsCheck™ Consult. Which of the following would NOT fall under one of the seven categories of drug-related problems that will be listed on the standardized communication form?
   a. The patient has a drug abuse problem
   b. The patient is taking an antibiotic that is not effective
   c. The patient's blood pressure is high because she forgets to take her medication most days
   d. All of the above would fall under one of the categories of drug-related problems

5. Which of the following changes to pharmacy scope of practice was NOT recommended by HPAC?
   a. Prescribe Schedule II and III drugs for patient reimbursement under third-party insurance plans
   b. Initiate bupropion or varenicline for smoking cessation
   c. Ordering of laboratory tests for medication monitoring
   d. Extending (refill) of prescriptions in appropriate circumstances

6. Which of the following features would a proposed minor ailments program NOT include if based on HPAC recommendations?
   a. Protocols for referral and communication with other health professionals
   b. Exclusion of Schedule I drugs in the list of drugs included in a minor ailments program
   c. Discussion of options for payment for services
   d. Collaboration with other health professional associations to define the list of drugs that will be available through a minor ailments program

7. When is a medication deemed to have been “prescribed”?
   a. When a nonprescription medication is recommended for a patient
   b. When an emergency supply of medication is supplied to a patient
   c. When a prescription for a patient is adapted
   d. All of the above represent examples of prescribing
   e. None of the above represent examples of prescribing

8. Which of the elements of the model of change associated with implementing pharmacy professional services is the most challenging?
   a. Communication with stakeholders
   b. Obtaining commitment from those involved
   c. Identifying resources and infrastructure required
   d. Development of vision and goals

9. Which of the following observations was NOT noted in the results of a survey-based review of pharmacists’ perceptions of MedsCheck?
   a. Using electronic or paper-based tools facilitated the process
   b. Job satisfaction increases
   c. Biggest barriers to successful implementation were lack of time and workflow issues
   d. Relationships with area physicians declined due to misunderstanding of intent

10. A patient that has not been to your pharmacy before comes in with a prescription for diltiazem 60 mg four times daily that indicates there are refills on it. He tells you that he has been taking it for 10 years and never has had any issues with repeats. In the future, if pharmacists in Ontario are allowed to adapt prescriptions, which of the following would be your most appropriate response (if legislation mimics British Columbia)?
   a. Recommend to the patient that diltiazem CD 240 mg would be an equivalent dose but would only need to be taken once a day, and refill.
   b. Tell the patient that you would only be allowed to refill this prescription by contacting the pharmacy that last dispensed it. You would not be able to adapt the prescription.
   c. Refill and adaptation of the prescription would be permitted but only to another strength of the original dosage form (i.e., 2x30 mg diltiazem qid)
   d. Adapt the prescription to diltiazem CD 240 mg with the patient’s permission after obtaining verification of refills from original pharmacy and fax the doctor within 24 hours.
References


Faculty: Transitioning into the New Environment of Pharmacist Care: An Ontario Perspective

About the authors

Tom Smiley is the founder of PharmaVision, a health education consulting firm in Ontario, and works part-time in community pharmacy. Tom serves as the Consultant to Primary Care for the Ontario Pharmacists’ Association. As a former member of the PrimaCare interprofessional primary care team, Tom collaborated with other health professionals to define the role of the pharmacist and conducted more than 300 medication reviews. Tom is the author of “Ten Tips for Effective and Efficient Medication Reviews,” published and distributed by the Ontario College of Pharmacists. In 2008 Tom was a consultant to the EMRxtra program in Sault Ste. Marie, training all pharmacists in the city in diabetes and cardiovascular disease management strategies.

Iris Krawchenko is a community pharmacist and manager in Hamilton, where she has successfully implemented the MedsCheck™ consultation service. In 2008, Iris was appointed to the Ontario Pharmacy Council, mandated to advise the Ministry of Health and Long-Term Care on pharmaceutical and health policy, including professional pharmacist services for compensation. She was a founder of Ontario’s Task Force on Optimizing the Role of the Pharmacist, which resulted in the document, The Framework to Support Comprehensive Medication Consultation Services in Ontario, and was one of the first mentors in HealthForce Ontario’s Pharmacist/Physician Mentorship program.

Reviewers

All lessons are reviewed by pharmacists for accuracy, currency and relevance to community pharmacy practice.

This lesson is valid until November 10, 2012. Information about MedsCheck™ and MedsCheck Consult™ programs, as well as the Regulated Health Professions Statute Law Amendment Act, 2009, may change over the course of time. Readers are responsible for determining the current aspects of these topics.

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