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MedRec Pharmacy Technicians: simply indispensable

by Alice Watt BSc(Pharm), RPh*



Learning objectives

Upon successful completion of this continuing education lesson you will be able to do the following:

1. Define medication reconciliation (MedRec) and understand its purpose and process.
2. Review the training components for pharmacy technicians involved in MedRec.
3. Understand the pharmacy technician's scope of practice as it relates to MedRec.
4. Explain the role of the pharmacy technician in MedRec in hospital and community pharmacy.

**The author acknowledges contributions to this CE lesson by the following individuals: Brenda Carthy, BA(CompSc); Carol Lee, CHIM; Margaret Colquhoun, RPh, BScPhm, FCSHP; Jennifer Turple, RPh BScPhm; Kimindra Tiwana RPh, BScPhm, of the Institute for Safe Medication Practices Canada; Dawn Ellis, RPhT, of Peterborough Regional Health Centre; Susan Fockler, RPh, BScPhm, ACPR, Ross Memorial Hospital; and Marie Owen, MN, of Canadian Patient Safety Institute (CPSI). Much of the material in this lesson has been adapted from the Safer HealthCare Now! Medication Reconciliation Acute Care Getting Started Kit (published September 2011).*

INTRODUCTION

A patient came into the preadmission clinic, but had forgotten to bring her medication vials. The only information in the chart was a medication list from the surgeon's office, which included diltiazem. I called the patient's community pharmacy to obtain a medication list, interviewed the patient, and discovered there had been a previous experience of severe dizziness with diltiazem; the patient's family physician instructed her to discontinue the medication and resume the previously prescribed fosinopril. The surgeon was not aware of these changes and would have inadvertently caused an adverse drug reaction for this patient. It was very rewarding to know how we had contributed to her care.⁽¹⁾

—MedRec "Good Catch" Story submitted by Dawn Ellis, RPhT, a MedRec Pharmacy Technician who championed the implementation of the MedRec program at Peterborough Regional Health Centre (PRHC).

When given the opportunity to enhance their role, pharmacy technicians have risen to the challenge. Healthcare organizations across the country are now using pharmacy technicians to obtain the Best Possible Medication History (BPMH; described below), which is the first step of the medication reconciliation (MedRec) process. Not surprisingly, healthcare organizations are finding that MedRec Pharmacy Technicians are improving patient care, while saving time for nurses, pharmacists, and doctors.⁽²⁾ As a result, pharmacy departments are able to make a business case to justify MedRec Pharmacy Technician positions because of the resultant cost savings to the organization as a whole. With comprehensive training, MedRec Pharmacy Technicians who use a process to obtain a BPMH that is consistent, reliable, and reproducible have become trusted experts and an integral part of the MedRec team.⁽³⁾ This lesson will discuss the MedRec process, and the role of the regulated pharmacy technician, primarily in the acute care setting where the need for MedRec was first identified and, therefore, first implemented. This lesson will also examine existing and future opportunities to expand the role of the community pharmacy technician in MedRec.

MEDICATION RECONCILIATION DEFINED⁽⁴⁾

Medication reconciliation is a formal process

whereby healthcare providers work together with patients, families, and care providers to ensure accurate and comprehensive medication information is communicated consistently across transitions of care. MedRec requires a systematic and comprehensive review of all the medications a patient is taking in order to compile an accurate and complete medication profile known as the BPMH. Healthcare providers can refer to the BPMH to ensure that medications being added, changed, or discontinued are carefully evaluated in order to prevent adverse drug events. MedRec is a component of medication management and will inform and enable prescribers to make the most appropriate prescribing decisions for the patient.

MedRec should occur at interfaces of care (admission, transfer, discharge) and at all transitions of care (eg, acute care, long-term care, community) in which the patient is at high risk of unintentional medication discrepancies. An unintentional discrepancy is one in which the prescriber unintentionally changed, added, or omitted a medication the patient was taking before admission.⁽⁴⁾ Unintentional discrepancies are potential medication errors that can lead to adverse drug events. In Canada, published studies have demonstrated that 40%–50% of patients at admission and 40% at discharge experience unintentional medication discrepancies or potential errors.^(5,6) Evidence demonstrates MedRec reduces the potential for medication incidents such as omissions, duplications, dosing errors, or drug interactions and discrepancies,⁽⁷⁾ which can potentially lead to

- adverse drug events,
- prolonged hospital stays, and
- readmission to hospital.

A 2011 study revealed that MedRec at admission led to a 43% reduction in actual adverse drug events caused by errors in admission orders.⁽⁸⁾ MedRec is also a required organizational practice. Accreditation Canada requires that acute care, long-term care, and ambulatory clinics make MedRec an organizational priority and implement (or have plans to implement) it across the organization, with the goal of ensuring MedRec quality is sustained.

EVIDENCE FOR MEDREC PHARMACY TECHNICIANS

The role of the pharmacy technician in the

MedRec process is well defined and has been documented in the literature for more than a decade. In 1993, the use of pharmacy technicians to initiate the reconciliation process by obtaining medication histories for a scheduled surgical population reduced potential adverse drug events (ADEs) by 80% within three months of implementation.⁽¹⁰⁾ A study from the Netherlands in a preoperative clinic for elective general surgical patients found that pharmacy technicians can successfully obtain medication histories, resulting in a statistically significant decrease in medication discrepancies.⁽¹¹⁾ In another study, a cost-benefit analysis comparing a MedRec Pharmacy Technician with a pharmacist doing the BPMH interview translated to a cost of \$1700 for a pharmacy technician versus \$3100–\$3700 for a pharmacist to interview all the patients on the unit (n = 270).⁽⁹⁾

The quality of medication histories by pharmacy technicians in hospital has been studied and validated. Johnston et al. examined the role of a pharmacy technician in the emergency department and formally compared pharmacy technicians' abilities to complete BPMHs with that of pharmacists. At the beginning of the study, the pharmacy technicians were trained in obtaining a BPMH. Fifty-nine patients included in the study were then interviewed separately by both the pharmacist and a technician. The study found that the BPMH interviews by technicians were significantly shorter in time than those performed by pharmacists, but there was no significant difference between the numbers of discrepancies found per patient. The study concluded that trained pharmacy technicians were able to obtain a BPMH with as much accuracy and completeness as pharmacists.⁽¹²⁾

THE MEDREC PROCESS BEGINS WITH A BPMH

Accurate medication information is the cornerstone for all medication-related decisions as patients move through the continuum of care. A BPMH should include a thorough history of all current medication use (prescribed and nonprescribed, scheduled medications, and medications taken on an "as-needed" basis), using at least two different sources of information.⁽⁴⁾ It is a "snapshot" of all the medications the patient is currently taking. Using a systematic pro-

cess to create a BPMH will help coordinate prescribing decisions and decrease the potential for discrepancies in prescribed medications, medication incidents, and potential ADEs.

The BPMH is more comprehensive than a routine primary medication history, which is often a quick preliminary medication history that may not include multiple sources of information. It is called a “best possible” medication history because it is the best one can do with the information that is available at the time.

The BPMH should usually be completed within 24 hours of admission to hospital.⁽⁴⁾ It is more useful if done earlier in the admission process, to facilitate accurate written admission orders. Typically, a BPMH is recorded in the electronic medical record or on a paper form that becomes part of the patient chart or may subsequently be entered into an electronic medical record.

In a recent Pan-Canadian survey,⁽¹³⁾ a range of 10 to 180 minutes is required to complete a BPMH, with an average time of approximately 30 minutes. The time to complete a BPMH depends on the experience of the healthcare provider, complexity of the medication regimen, the status of the patient, and the availability of the patient's sources of medication information.

How do I obtain a BPMH?

A BPMH is a history created using the following:

1) A systematic process of interviewing the

patient/family where possible; the Best Possible Medication History Interview Guide (<http://bcpsqc.ca/documents/2012/09/Interview-Guide.doc>) is a tool that can be used to ensure a complete and accurate history. The guide comprises questions about current prescription and nonprescription medications (eg, acetylsalicylic acid, inhalers, topicals, injections, herbal medications, and illicit drug use), recently stopped medications, and prescription changes.

2) A review of at least one other reliable source of information to obtain and verify all of a patient's medication use (prescribed and nonprescribed). Complete documentation includes drug names, dosage, route, and frequency. Verification of medication information with more than one source as appropriate including

- a review of medication vials/patient medication lists,
- contacting community pharmacists and physicians,
- a review of provincial medication database, and
- a review of previous patient health records.

For more tips and information on how to obtain a BPMH please refer to the Safer Healthcare Now! Acute Care Getting Started Kit.⁽⁴⁾

Quality of the BPMH

Regular audits of the BPMH should be performed to ensure its quality is maintained and

the process is followed. Rigorous training and auditing are required to ensure a high-quality BPMH that is trustworthy and can be used to create admission medication orders. The trust earned between the prescriber and the MedRec Pharmacy Technician who consistently performs accurate and complete medication histories is the key to a successful MedRec Pharmacy Technician program.

Challenges to obtaining a BPMH

Conflicting information. When obtaining a BPMH, gathering the myriad sources of information and combining them to create an up-to-date current medication list can be challenging. During the BPMH interview with the patient or family, it is important to clarify and document what medication is actually being taken, as this could differ from what was originally prescribed. Often different sources can provide conflicting information. For example, it is common for patients to take scheduled medications on an “as-needed” basis. Understanding the reason why a patient may not be adhering to the prescribed regimen by asking questions in a non-judgmental way makes it safe for the patients to answer truthfully. If the discrepancies cannot be easily understood or explained, then the case can be referred to the clinical pharmacist. The differences must be clearly communicated to the prescriber, so that he or she can make an informed decision about which medications to order.

Sources of information are not created equal.

Some sources may be incomplete or include medications that have been changed or discontinued. Starting with the most recent sources of information and being aware of the limitations of the sources of information will help to prioritize the MedRec Pharmacy Technician's time. For example,

- Community medication profiles are dispensing records, which may include medications that have been discontinued or changed that do not reflect actual medication use.
- Provincial electronic records may include only the medications that are covered by the provincial formulary.
- The physician's list may be compiled from unverified information provided by the patient that may be inaccurate or outdated and may not include medications



prescribed by specialists.

- When the patient or the emergency medical services team member brings the patient's medications from home, some medications (eg, vials, eye drops or inhalers) may be missing.
- For patients who use compliance or blister packs, one cannot assume that they are taking all the medications in the blister pack.
- Medication vials may not always contain the type of medication that is listed on the label.

A patient presented to the ER with hyperkalemia. During the BPMH interview, it was noted that the patient had two vials labelled amlodipine, but one of them actually contained amiloride/hydrochlorothiazide. It turns out that the patient's spouse, who was trying to be helpful by cleaning up the medicine cabinet, had dumped the vial of amiloride/hydrochlorothiazide (previously discontinued by the physician) into the patient's amlodipine container. The patient had unknowingly been taking both medications. The MedRec Pharmacy Technician spoke to the pharmacist who confirmed that the amiloride/hydrochlorothiazide could be the cause of the patient's high potassium level. She discussed it with the emergency physician, and the patient was later released. This prevented an unnecessary admission and further medical investigation.
—Dawn Ellis, RPhT, Peterborough Regional Health Centre

Overcoming communication barriers.

Patient-specific factors such as language barriers or the patient's medical, mental, or cognitive status can prevent the MedRec Pharmacy Technician from finding out the patient's actual medication use. Using a translator, speaking to family members or caregivers, or contacting the patient's pharmacy or primary healthcare providers can overcome these communication challenges. Technicians can often identify and document these challenges early in the patient's admission, which will also help prepare other care providers when they interact with the patient.

COMPLETING THE MEDREC PROCESS

At admission

Once the BPMH has been completed by the MedRec Pharmacy Technician, it is

used at admission to create medication orders (proactive model) or compared against the patient's current hospital medication orders (retroactive model). In the retroactive model, the BPMH should be completed and any detected discrepancies should be resolved within 24 hours of admission.⁽⁴⁾ Some institutions have a hybrid model in which a combination of both proactive and retroactive models exist. Hybrid models exist due to⁽⁴⁾

- inadequate staffing to perform a BPMH proactively,
- medical status of the patient,
- complex patients with extensive medication histories, or
- incomplete information available to complete a BPMH before the admission orders.

At discharge

Potentially emerging roles for MedRec Pharmacy Technicians include facilitating MedRec at discharge, at which time a Best Possible Medication Discharge Plan (BPMDP) is created. This involves reconciling the medications the patient was taking before admission (BPMH) and those initiated in the facility with the medications they should be taking post-discharge to ensure all changes are intentional and that discrepancies are resolved before discharge.⁽⁴⁾ This should prevent therapeutic duplications, omissions, unnecessary medications, and confusion.

It is possible that a MedRec Pharmacy Technician can contribute to the process of creating a BPMDP (www.ismp-canada.org/download/MedRec/Best_Possible_Medication_Discharge_Plan_%28BPMDP%29.pdf), using the BPMH and the most up-to-date medication profile as sources of information and by considering the following⁽⁴⁾:

- New medications started in hospital
- Discontinued medications (from BPMH)
- Adjusted medications (from BPMH)
- Medications that are to be continued (from BPMH)
- Medications held in hospital
- Non-formulary/formulary adjustments made in hospital
- New medications started upon discharge
- Additional comments as appropriate (eg, status of herbals or medications to be taken at the patient's discretion).

It is important for the BPMDP to be communicated to the next providers of care (eg, family physician, community pharmacist, long-term care provider) and to the patient. The MedRec process is a shared responsibility of interdisciplinary healthcare professionals in collaboration with patients, families, and caregivers.

MEDREC PHARMACY TECHNICIAN SELECTION AND CERTIFICATION PROCESS

Healthcare organizations using MedRec Pharmacy Technicians may have a selection process to help them identify the best candidate for this challenging, yet rewarding, position. Job qualifications may include competent interview and communication skills, ability to work within a team of healthcare professionals, the ability to work independently, and high comfort levels with direct patient or client contact. Eventually, becoming a regulated pharmacy technician will be a requirement for a MedRec Pharmacy Technician in most provinces.

MedRec Pharmacy Technician certification programs may take up to 4–8 weeks of full-time training, along with several months hands-on experience, to ensure quality and consistency. MedRec Pharmacy Technician certification programs are not currently standardized nor recognized by any specific governing bodies, but rather are created and recognized by individual hospitals. MedRec Pharmacy Technician training may include didactic and reading list components; interview skills and effective communication training; hands-on training; shadowing a MedRec Pharmacy Technician or pharmacist; a written test; role-playing exercises; case studies; computer training; violence prevention training; supervised shifts with a preceptor; and an orientation. With the right training and experience, MedRec Pharmacy Technicians will be able to improve their confidence, skills, and efficiency in obtaining the BPMH.

LIABILITY

Regulated pharmacy technicians in MedRec Pharmacy Technician roles accept additional responsibility and liability. The key to this issue is ensuring that "best practices" are being carried out, that a systematic process with a clear set of directives for completion

of the BPMH is followed, and that the technicians operate within their defined scope of practice. If the technicians are following an established hospital policy, then they would be covered by the hospital's liability insurance. It is important for the MedRec Pharmacy Technician to know that they are not alone in the process and that the physician, nurse, and pharmacist are all part of the system checks in place to ensure safety of the system.

MEDREC PHARMACY TECHNICIANS PRACTICE WITHIN THEIR SCOPE

Ross Memorial Hospital, a 175-bed community hospital in Lindsay, Ontario, has allocated a MedRec Pharmacy Technician position to provide BPMH service for admission through the emergency department, 10 hours per day, seven days per week. Recently, a patient presented to the emergency room with vague chest pains and a general unwell feeling and was seen by the MedRec Pharmacy Technician. After completing the BPMH interview, the patient asked the pharmacy technician if any of the medications he was taking could cause black stools. The technician appropriately responded that as a pharmacy technician she could not answer that question but promptly informed the nurse. This detail had not been previously noted on the nursing history or at triage before the BPMH interview as the patient was not comfortable sharing this information with the nurse or doctor. The nurse contacted the physician who started the patient on appropriate therapy to treat the GI bleed caused by one of the medications he was taking. This "good-catch" story demonstrated the excellent rapport that the technician developed with the patient and how the technician worked within their scope as part of the team to help identify and resolve a drug-related problem.

—MedRec "Good Catch" Story submitted by Susan Fockler RPh, of Ross Memorial Hospital in Lindsay, Ontario.

MedRec Pharmacy Technicians should refer the patient to a nurse or pharmacist if

- a patient asks a question about why they are taking certain medications and how best to take them, herbal remedies, drug interactions, their health, or what the plan is for them while in hospital;



- a medication is completely unfamiliar and information about it cannot be found;
- they cannot resolve the differences between two different sources of the patient's medication information; or
- they are unsure of how to handle a particular question or situation.

ROLE OF THE MEDREC PHARMACY TECHNICIAN IN ACUTE CARE

Acute care organizations have successfully adopted the MedRec Pharmacy Technician model in the emergency department, on medical units, and in ambulatory and pre-admission clinics. Facilitating MedRec in the community involves understanding what medications the clients are taking and keeping up-to-date records. The role of the MedRec Pharmacy Technician may vary depending on the legislation in each province. For this reason, it is important for the pharmacy staff to determine their optimal role in providing medication reconciliation to their patients.

POTENTIAL ROLE OF THE MEDREC PHARMACY TECHNICIAN IN THE COMMUNITY

The pharmacy technician role in medication reconciliation at community pharmacies is emerging. In this environment, patients are at the centre of every interaction with healthcare providers. Every effort to help them maintain and keep an accurate and up-to-date medication list and communicating that list to allied healthcare providers will help in the MedRec process. For example, a novel mobile phone app "MyMedRec" (<http://www.knowledgeisthebestmedicine.org/>

index.php/en/iphone_app) developed by ISMP Canada in conjunction with the Canadian Pharmacist's Association and six other leading healthcare organizations, can help tech-savvy clients and their family members keep their medication lists up to date on their mobile devices. This free app allows clients to email the medication list to their care providers and may be secured by password-protection.

Many provinces have established programs to reimburse community pharmacists performing an annual medication review, which includes the requirement to obtain an accurate and up-to-date medication history for patients in the community pharmacy and also in the home (eg, Ontario's MedsCheck program, New Brunswick's PharmaCheck, British Columbia's medication review services). To facilitate MedRec as patients transition from home to hospital and hospital back to home, Ontario's MedsCheck program, for example, allows patients who will be admitted to hospital or who have been recently discharged from hospital (within two weeks) to qualify for a Follow-Up MedsCheck. An example of a pharmacy technician's role in the community related to medication reconciliation would be to help identify those who would qualify for a medication review and to remind patients to bring in their list of medications and their vials on their next visit.

Pharmacy technicians in the community will be on the receiving end of the BPMDPs from hospitals, and will document any changes to the prescriptions that are authorized by the prescriber.⁽¹⁹⁾ In doing so, it is important

to bring changes in the patient's medication regimen to the attention of the pharmacist.

Other roles of pharmacy technicians may include faxing medication histories or dispensing records to other authorized facilities or healthcare providers who request that information (eg, emergency departments). With the new regulation that allows registered pharmacy technicians to transfer prescriptions, there may be an opportunity to expand that role to enable the registered technician to verbally communicate medication infor-

mation needed for MedRec to health professionals in the patient's circle of care.

A future role of the pharmacy technician in the community, with adequate training and quality audits, could be similar to acute care hospitals where a regulated pharmacy technician could perform a patient interview to obtain the BPMH.

Other responsibilities of pharmacy technicians engaged in MedRec in the community setting include the following:

- Introduce the medication review to clients.
- Identify clients who are eligible for a medication review and start the process.
- Call clients to schedule or remind them of their medication review with the pharmacist and to bring in their medication vials, inhalers, creams, nonprescription medications, and herbal or traditional medications.
- Ask clients when they come in for refills or new prescriptions whether there have been any recent changes to their medication regimen. Has there been anything new, changed or discontinued?
- Introduce clients to various ways to keep an up-to-date medication record.
- Encourage clients to bring their medication lists to all doctors' visits and update those lists if there are changes to prescriptions.

- Identify patients recently discharged from healthcare institution so they can have their medications reviewed and reconciled by the community pharmacist
- Manage the billing portion of the medication review.

PARTNERS IN QUALITY PATIENT CARE

Having a MedRec Pharmacy Technician position frees up the time for other clinicians, such as physicians, nurses, or pharmacists, to focus on other direct quality patient care activities. The MedRec Pharmacy Technician may reduce the time needed to clarify orders that may have been confusing or incorrect if MedRec was not done, and may make the process of admitting, transferring, and discharging a patient more efficient. Hospitals across Canada over the past decade are realizing the benefits of MedRec Pharmacy Technicians, saving money and time while improving the quality of patient care. "It has been a rewarding opportunity for learning, and knowing that we are contributing to quality patient care" says Ms. Ellis about her MedRec Pharmacy Technician role at Peterborough Regional Health Centre. There is shared accountability for medication safety with all health care providers in the patient's

A DAY IN THE LIFE OF A MEDREC PHARMACY TECH

(Adapted with permission from The Ottawa Hospital⁽¹⁾ and Ross Memorial Hospital)

On a typical day, the MedRec Pharmacy Tech may do the following:

- In the emergency department—work with nurses and physicians to prioritize patients for MedRec.
- In the preadmission clinic—call patients the day before to remind them to bring in all of their medications.
- Interview patients and/or their families to obtain a BPMH and
 - o identify actual medication usage;
 - o record height and weight;
 - o identify alcohol or smoking history, risk factors, and patient factors (eg, vision impairment, language barriers);
 - o identify blister pack usage;
 - o identify patient's own medications if needed to be used in hospital; and
 - o educate patients on the importance of bringing their medication vials or lists to the hospital.
- Contact the patient's retail pharmacy for missing/questionable information.
- Access the electronic provincial health record, if applicable.
- Verify other databases or previous admissions lists.
- Consult with pharmacist/nurse as needed.
- Document the BPMH on a paper form or in an electronic medical record.
- Identify discrepancies between the BPMH and the admission orders as outlined by the hospital's policy.
- Assist in training or being a preceptor to other MedRec Pharmacy Technicians.

TOOLS AND RESOURCES

If you have any questions, would like information about ISMP Canada's BPMH Training for Pharmacy Technicians (www.ismp-canada.org/download/education/Flyer_BPMH_Tech.pdf), or would like to be added to our mailing list for our updates and ISMP Canada bulletins (www.ismp-canada.org/ISMPCSafetyBulletins.htm), please contact Alice Watt at awatt@ismp-canada.org. Visit us on our Medication Reconciliation Network Facebook page or at <http://tools.patientsafetyinstitute.ca/Communities/MedRec/default.aspx> to share your MedRec Pharmacy Tech stories and join the conversation.

Additional:

- My MedRec app (iPhone): www.knowledgeisthebestmedicine.org/index.php/en/iphone_app
- Knowledge Is The Best Medicine: www.knowledgeisthebestmedicine.org
- SHN Acute Care Getting Started Kit: <http://www.ismp-canada.org/medrec/>
- *Safer Healthcare Now!* Medication Reconciliation Intervention: www.saferhealthcarenow.ca/EN/Interventions/medrec/Pages/default.aspx
- SHN MedRec Communities of Practice: <http://tools.patientsafetyinstitute.ca/Pages/welcome.aspx>
- BPMH Interview Guide 2: http://www.ecsglobal.com/mulliganmarketing/org_products.ecs/list/0/4/healthcare/?pwd=healthcare&Poe_Session=b240d34770ae122c92bba7cb9cc94e98
- Ross Memorial Hospital - Technician Education Session for Medication Reconciliation: <http://tools.patientsafetyinstitute.ca/Communities/MedRec/Shared%20Documents/Staff%20Training%20and%20Education/Pharmacy%20Technician%20Training%20Program/Technician%20Education%20Session%20for%20MedRec.doc>

circle of care. The MedRec Pharmacy Technician has an important role to play in the patient's circle of care. Indeed, pharmacy technicians involved in MedRec are becoming simply indispensable to patients, clients, and the entire healthcare team.

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QUESTIONS

Please select the best answer for each question or answer online at www.CanadianHealthcareNetwork.ca for instant results.

1. Which of the following statements is true?

- a) Medication reconciliation has been shown to increase communication errors between healthcare providers
- b) Medication reconciliation has NOT been shown to reduce the potential for adverse drug events.
- c) Medication reconciliation has been shown to reduce the potential for adverse drug events.
- d) Medication reconciliation only occurs in an acute care hospital.
- e) Medication reconciliation increases medication discrepancies.

2. Which statement is true? In the study by Johnston et al., which examined the MedRec Pharmacy Technician's ability to complete a BPMH compared with that of a pharmacist, they found the following:

- a) MedRec Pharmacy Technicians are more efficient
- b) MedRec Pharmacy Technicians' BPMHs were more accurate than those of pharmacists
- c) MedRec Pharmacy Technicians' BPMHs were as accurate as those of pharmacists
- d) MedRec Pharmacy Technicians found more discrepancies per patient than pharmacists did
- e) A and B
- f) A and C

3. Which of the following statements is true regarding the BPMH?

- a) A BPMH can be different depending on who is performing the interview because

each clinician has a unique style of interviewing that might bring out different kinds of information from the patient each time you do it.

- b) A BPMH involves interviewing the family members only because the patient is usually too ill to participate in an interview.
- c) A BPMH includes prescription medications but does not include herbal or nonprescription medications.
- d) A BPMH is a list of all the medications the patient has ever taken, including discontinued medications.
- e) A BPMH can be performed by a MedRec Pharmacy Technician trained to use a systematic process that is reliable, consistent, and reproducible.

4. In which model of MedRec are the admission orders written before the BPMH is completed?

- a) Hybrid Model
- b) Proactive Model
- c) Retroactive Model
- d) All of the above
- e) None of the above

5. The BPMH is created by

- a) using a systematic process of interviewing the patient or family where possible.
- b) a review of at least one other reliable source of information including medication vials, community pharmacy records, family physician records, provincial medication databases, or previous health records.
- c) asking questions in a nonjudgmental way and using the BPMH Interview guide to

systematically ask a combination of open- and close-ended questions.

- d) A and B only
- e) A, B, and C

6. Which of the following questions would a MedRec Pharmacy Technician be authorized to answer?

- a) A patient mentions that he takes rosuvastatin with grapefruit juice and wonders if there is an interaction.
- b) Is 5 mg the usual dose of ramipril?
- c) Should I continue to take aspirin when I go home?
- d) What are you going to do with the medication list that I provided to you?
- e) I have had black stools; could my medications have caused this?

7. Which of these is considered a reliable source of information that may be used in combination with a patient interview to obtain a BPMH?

- a) Medication vials
- b) Medication Administration Record (MAR)
- c) Provincial medication database
- d) Previous patient health records
- e) All of the above

8. MedRec has been shown to reduce the potential for medication incidents, which can lead to all except the following:

- a) Adverse drug events
- b) Shortened length of stay
- c) Readmission to hospital
- d) Increased length of stay

9. What is a medication discrepancy in the context of medication reconciliation?

- a) A difference between what the patient was taking and what their spouse thought they were taking
- b) A difference between what the community pharmacy dispensed and what was ordered on admission
- c) A difference between what the family doctor prescribed and what the community pharmacy dispensed
- d) A difference between what was prescribed by the doctor (eg, at admission) and what the patient was taking at home.

10) The Best Possible Medication Discharge Plan involves the following:

- a) Comparing the BPMH with the transfer orders
- b) Interviewing the patient to plan for discharge
- c) Reconciling the medications the patient was taking before admission (BPMH) and those initiated in the facility with the medications they should be taking post-discharge
- d) Reconciling the medications the patient took at home with the medications they took at the last admission.

11) Which of these statements is NOT TRUE.

The Best Possible Medication Discharge Plan (BPMDP) should include the following:

- a) New medications started in hospital
- b) Medications that were stopped
- c) Changed medications
- d) Recent blood work results and consult/discharge notes.
- e) Unchanged medications

12. Which of the following is NOT true of MedRec Pharmacy Technicians?

- a) They are able to work well independently
- b) They are conscientious, responsible and accountable for the medication history process
- c) They have excellent interview and communication skills
- d) They work only in the emergency department
- e) They are able to work within a team of healthcare professionals
- f) They are comfortable with patient/client contact

13. MedRec Pharmacy Technicians will NOT be held accountable for the BPMHs they obtain.

- a) True

- b) False

14. MedRec Pharmacy Technicians do not need to refer patients to a nurse or pharmacist if they ask a question about

- a) why they are taking certain medications.
- b) the name of their pharmacy at the corner of Main and 14th.
- c) their health.
- d) drug interactions.
- e) what the plan is for them while in hospital.

15) What is NOT a role of the community pharmacy technician in MedRec?

- a) Introducing the medication review to the client
- b) Communicating the client's medication profile to healthcare providers in the client's circle of care
- c) Counselling the patient about the medications that were discontinued or started in hospital
- d) Updating the medication profile to reflect the client's BPMDP
- e) Encouraging the client to maintain an up-to-date medication list and bring it with her to every healthcare provider she visits

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Type of practice

- Drug chain or franchise
- Banner
- Independent
- Mass merchandiser
- Grocery store pharmacy
- Hospital pharmacy
- Other (specify): _____

- Full-time technician
- Part-time technician

- Are you a certified technician?
 Yes No

Please help ensure this program continues to be useful to you by answering these questions.

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 Yes No
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 Yes No
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