Ontario Primary Care Medication Reconciliation Guide

Institute for Safe Medication Practices Canada
L'Institut pour l'utilisation sécuritaire des médicaments du Canada

Ontario
Health Quality Ontario
Qualité des services de santé Ontario

Acknowledgments

The foundational principles of medication reconciliation and many of the best practices outlined in this guide have been adapted from previous work developed by the Institute for Safe Medication Practices Canada and the Canadian Patient Safety Institute for the *Safer Healthcare Now!* Medication Reconciliation Intervention.

Advisory Committee

- eHealth Ontario
- Health Quality Ontario
- Institute for Safe Medication Practices Canada
- Nurse Practitioners' Association of Ontario
- Ontario Medical Association
- Ontario Association of Community Care Access Centres
- Ontario Ministry of Health and Long-Term Care
- Ontario Pharmacists Association
- Queen's Family Health Team
- Registered Nurses' Association of Ontario
- South East Local Health Integration Network
- Sunnybrook Health Sciences Centre

Expert Panel

- Eden d'Entremont-MacVicar, University of Health Services, Family Health Team
- Dr. Michael Hamilton, Institute for Safe Medication Practices Canada
- Robina Khan, University of Health Services, Family Health Team
- Karen Kieley, Accreditation Canada
- Lisa McCarthy, Women's College Hospital
- Suzanne Singh, Mount Sinai Academic Family Health Team
- Jennifer Turple, Institute for Safe Medication Practices Canada
- Dr. C. Ruth Wilson, Department of Family Medicine Queen's University

Outline

- Medication reconciliation fundamentals
- Medication reconciliation process in primary care
- Sources of medication information
- Implementation strategies
- Potential challenges to implementation of medication reconciliation in primary care settings

Medication Reconciliation

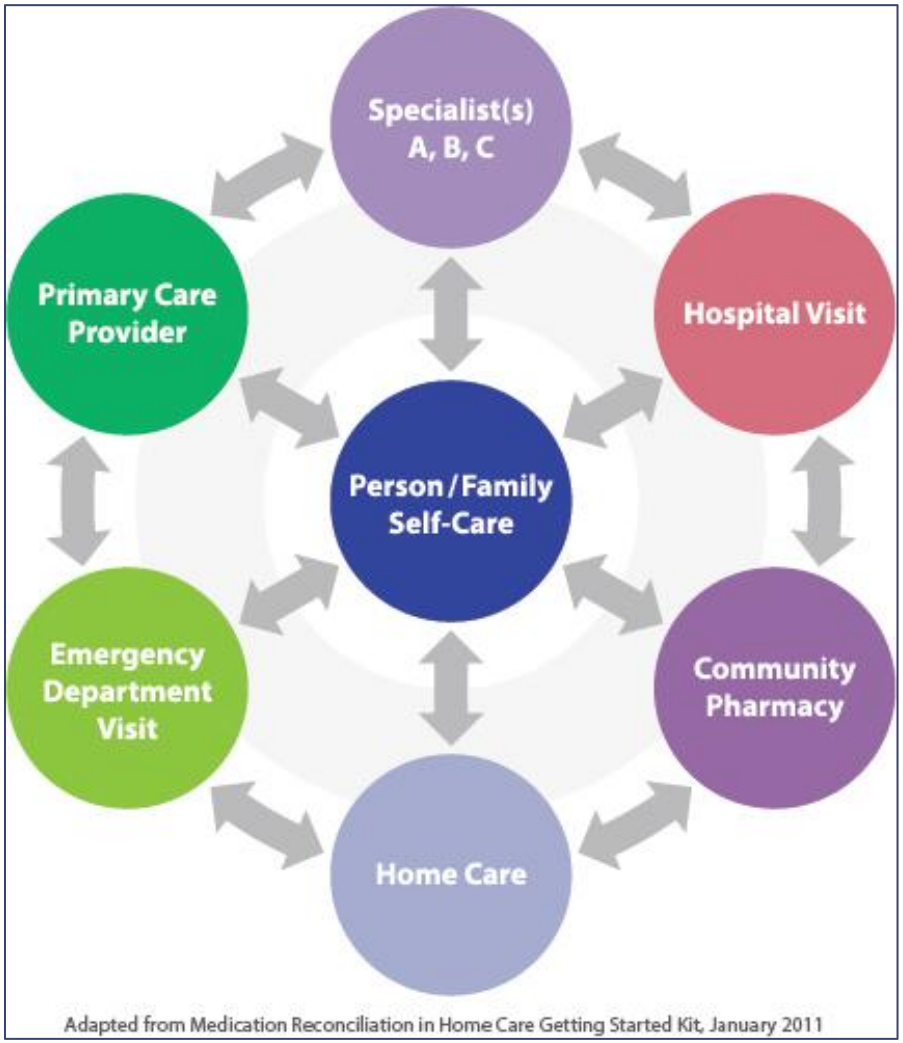
Is a formal process in which healthcare providers work together with patients, families, and other care providers to ensure that **accurate and complete medication information** is **communicated consistently** across transitions of care.

MedRec requires a **systematic and comprehensive review of all the medications** a patient is taking to allow careful evaluation of any medications that are being added, changed or discontinued.

ISMP Canada and Safer Healthcare Now! (September, 2011). Medication Reconciliation in Acute Care Getting Started Kit

Goal of MedRec

Prevent adverse drug events as patients transition through the healthcare system



Adapted from Medication Reconciliation in Home Care Getting Started Kit, January 2011

Medication Communication Failures Impact EVERYONE!

PATIENT & FAMILY

- loss of life
- prolonged disability
- temporary harm
- complicated recovery
- loss of income
- confusion about treatment plan

HEALTHCARE SYSTEM

- prolonged recovery time
- increased cost and staff time due to rework
- avoidable readmissions and Emergency department visits
- reduced access to health services

SOCIETY

- loss of productivity
- workplace absenteeism
- increased cost
- loss of public confidence in the healthcare system

Medication Safety: We all have a role to play.

Safe patient care depends on accurate information. Patients benefit when clinicians work with patients, families, and their colleagues to collect and share current and comprehensive medication information. Medication reconciliation is a formal process to do this at care transitions, such as when patients enter the hospital, are transferred or go home. We all have a role to play.

Accreditation Canada, Canada Health Infoway, the Canadian Medical Association, the Canadian Nurses Association, the Canadian Pharmacists Association, the Canadian Society of Hospital Pharmacists, Patients for Patient Safety Canada, the Royal College of Physicians and Surgeons of Canada, The College of Family Physicians of Canada, Canadian Patient Safety Institute and the Institute for Safe Medication Practices Canada **actively support strategies to improve medication safety and call on all healthcare professionals to contribute to effective communication about medications at all transitions of care to improve the quality and safety of our Canadian healthcare system.**

ACCREDITATION CANADA / AGRÉMENT CANADA
Driving Quality Health Services / Force motrice de la qualité des services de santé

Canada Health Infoway / Inforoute Santé du Canada

Association médicale canadienne / Canadian Medical Association

Canadian Nurses Association / Association des infirmières et infirmiers du Canada

cpsi icsp

Canadian Pharmacists Association / Association des pharmaciens du Canada

Canadian Society of Hospital Pharmacists / Société canadienne des pharmaciens d'hôpitaux

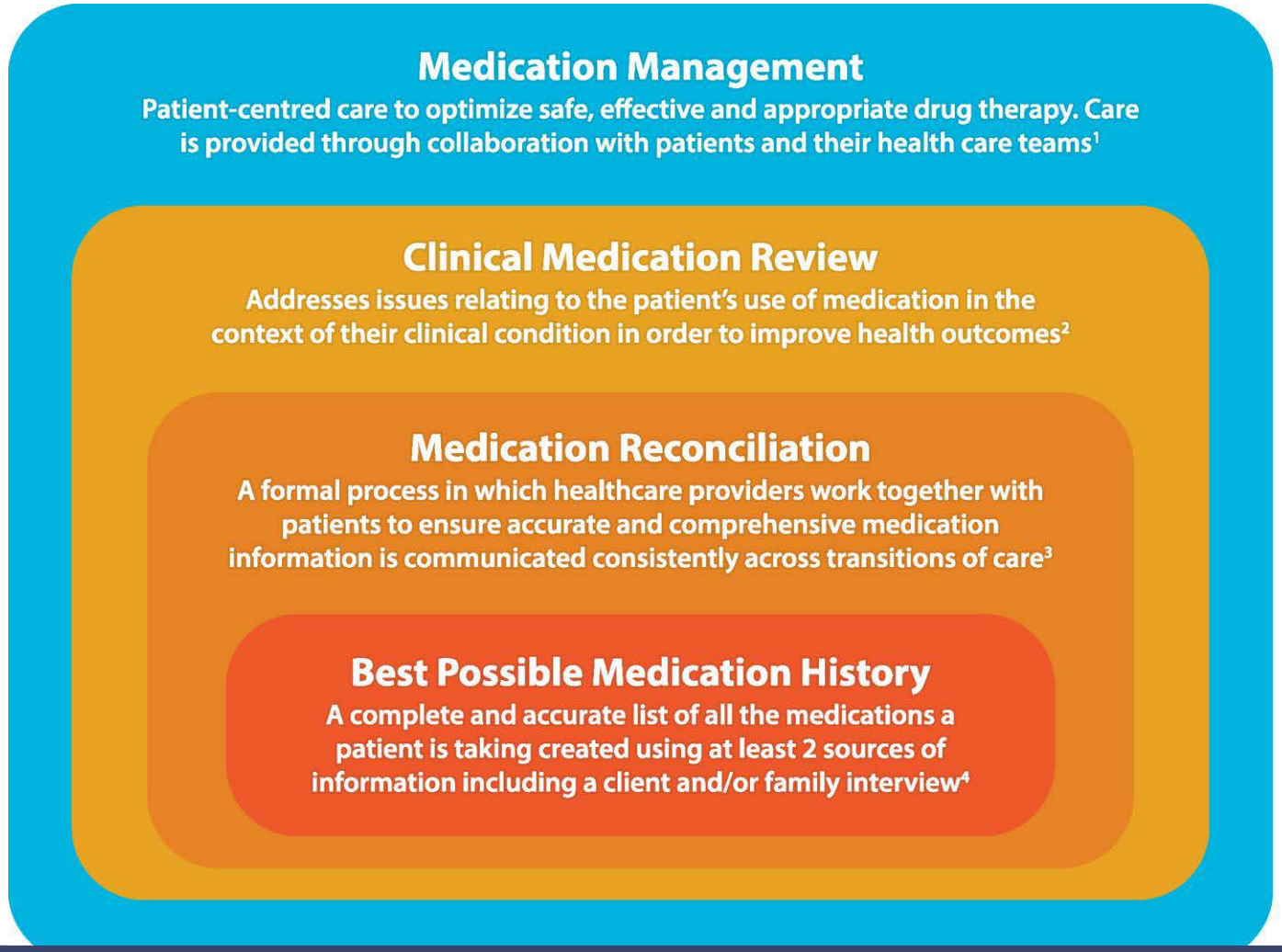
ismp Canada

Patients for Patient Safety Canada / Patients pour la sécurité des patients du Canada

Royal College / Collège royal

The College of Family Physicians of Canada / Le Collège des médecins de famille du Canada

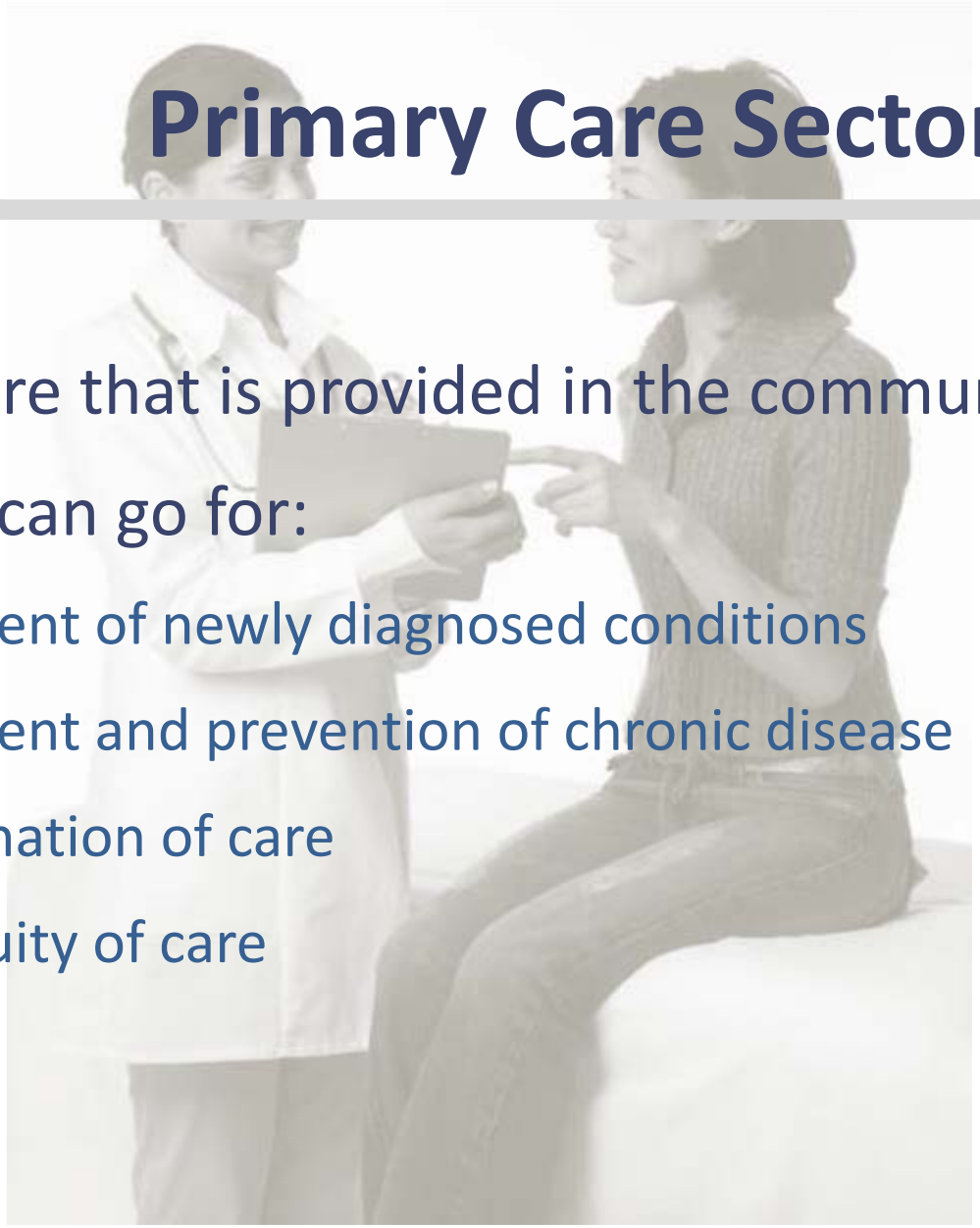
The Role of MedRec Within Context of Medication Management



1. Developed collaboratively by the Canadian Pharmacists Association, Canadian Society of Hospital Pharmacists, Institute for Safe Medication Practices Canada, and University of Toronto Faculty of Pharmacy, 2012
2. www.health.gov.bc.ca/pharmacare
3. ISMP Canada. Medication Reconciliation in Acute Care: Getting Started Kit. 2011
4. ISMP Canada. Medication Reconciliation in Acute Care: Getting Started Kit. 2011

Adapted from
Fraser Health, Providence Health Care, Provincial Health Services Authority, Vancouver Coastal Health

Primary Care Sector



- Healthcare that is provided in the community
- Patients can go for:
  - treatment of newly diagnosed conditions
  - treatment and prevention of chronic disease
  - coordination of care
  - continuity of care

Goals for Primary Care

- ✓ *Aim to **obtain and maintain a complete and accurate list** of the medications that a patient is taking, to optimize safe, effective, and appropriate drug therapy.*
- ✓ ***Encourage and empower patients** to become more involved in managing their medications by giving them the necessary information and resources to do so.*
- ✓ *Strive to **accurately communicate information** about a patient's medications among all members of the patient's healthcare team.*

The Need for MedRec in Primary Care

- ***16%*** *of primary care physicians say hospitals send them information needed for follow-up care within 48 hours of a patient being discharged*
- ***26%*** *say they always receive a comprehensive report from specialists who have seen their patients, and* ***11%*** *of them say these reports are timely*
- ***43%*** *of primary care physicians say they can easily generate a list of any patient's medications*

How do Canadian primary care physicians rate the health system? Health Council of Canada, 2013

The Need for MedRec in Primary Care

- More than **1 in 9** emergency department visits are due to **drug-related adverse events**, **68%** of which are thought to be **preventable**

Zed PJ, Abu-Laban RB, Balen RM et al. Incidence, severity and preventability of medication-related visits to the emergency department: a prospective study. CMAJ. 2008 Jun 3;178(12):1563-9

- A comparison of recorded medications in physicians' records and reported medication use by patients showed **discrepancies in 76%** of cases.

Bedell SE, Jabbour S, Goldberg R, Glaser H, Gobble S, Young-Xu Y, Graboys TB, Ravid S. Discrepancies in the use of medications: their extent and predictors in an outpatient practice. Arch Intern Med. 2000 Jul 24;160(14):2129-34

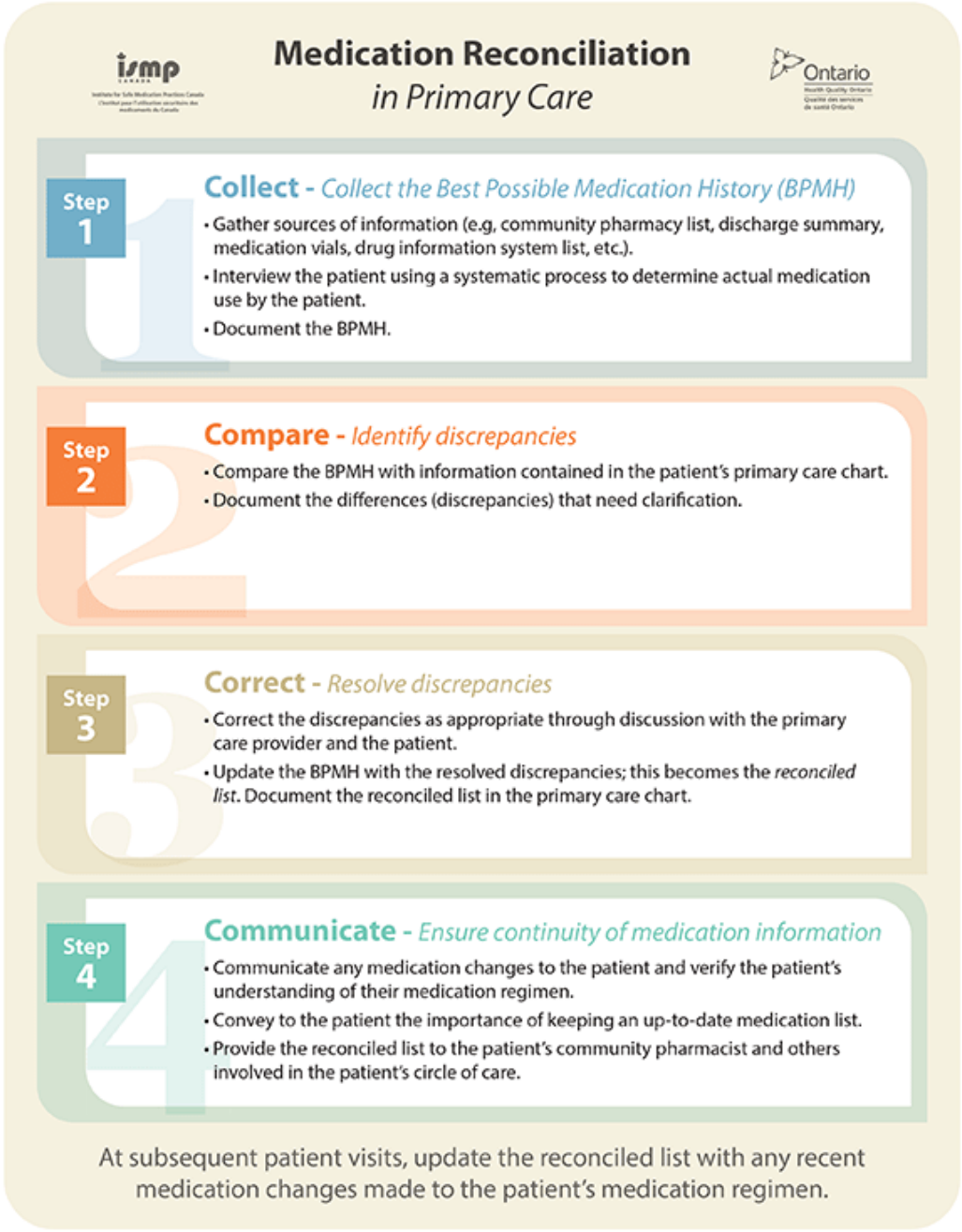
The Benefits of MedRec in Primary Care

- ☺ Among patients who received MedRec 3 to 7 days post discharge, there was a statistically significant decrease in readmission rates at days 7 and 14.

Kilcup M, Schultz D, Carlson J, Wilson B. Postdischarge pharmacist medication reconciliation: impact on readmission rates and financial savings. J Am Pharm Assoc (2003). 2013 Jan-Feb;53(1):78-84

- ☺ MedRec conducted in a primary care clinic significantly reduced (from 26% to 6%) the proportion of visits with missing medication lists and reduced prescription medication errors by more than 50%.

Varkey P, Cunningham J, Bisping D. Improving medication reconciliation in the outpatient setting. Jt Comm J Qual Patient Saf. 2007 May;33(5):286-92



Select

The following patient groups might be selected for MedRec:

- recently discharged from hospital
- on more than a threshold number of medications (i.e., 10)
- older than a threshold age (i.e., 65 years old)
- taking high-risk medications (i.e., warfarin, insulin)
- new patients to the practice setting
- diagnosis of an ambulatory care sensitive condition
- eligibility criteria as defined for the particular practice setting
- scheduled for annual physical examination

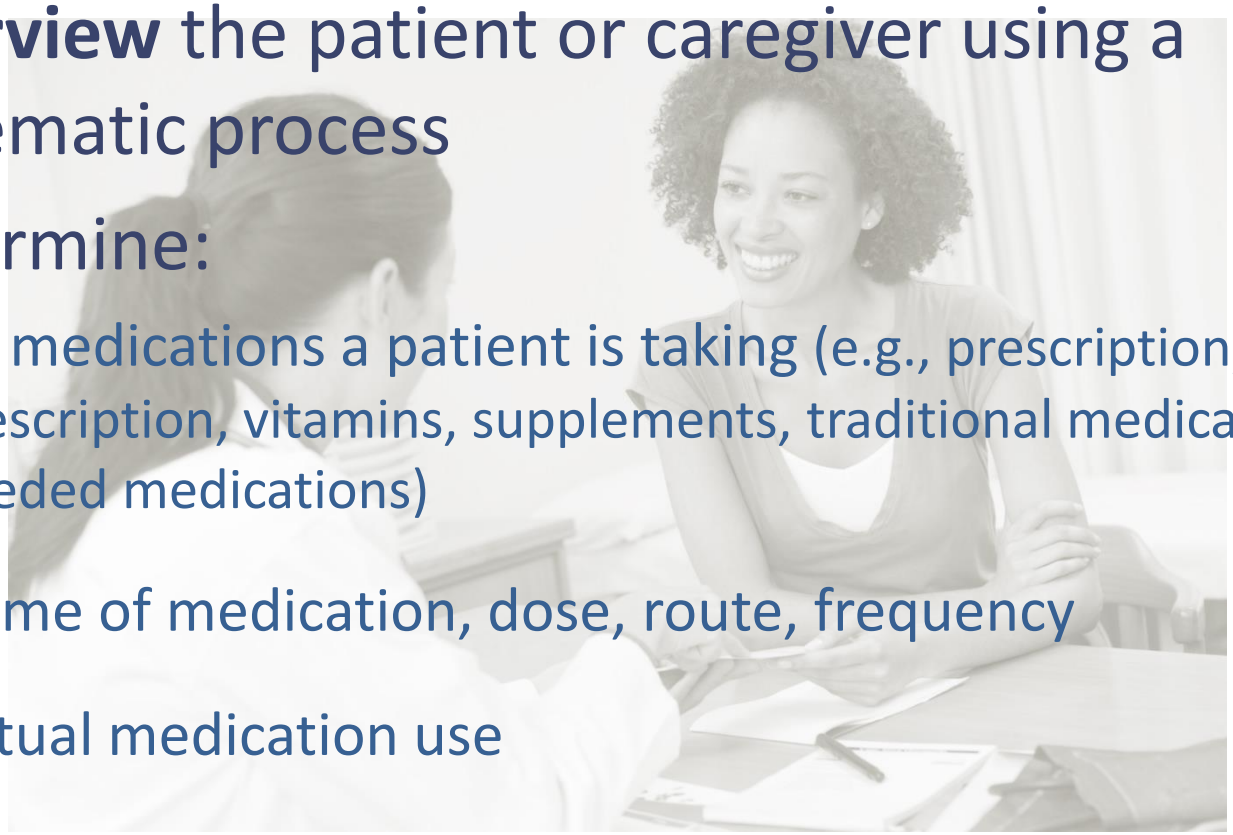
Ideally everyone will undergo MedRec

Collect

- **Gather** information about a patient's medication regimen
- Possible sources of information include:
  - medication vials or blister packs
  - medication list from community pharmacy
  - MedsCheck records from community pharmacy
  - Ontario Drug Benefits drug profile viewer
  - hospital discharge summary
  - BPMH prepared by Rapid Response Nurses
  - Community Care Access Centre (CCAC) report
  - specialist's consultation report

Collect

- **Interview** the patient or caregiver using a systematic process
- Determine:
  - All medications a patient is taking (e.g., prescription, non-prescription, vitamins, supplements, traditional medications, as-needed medications)
  - Name of medication, dose, route, frequency
  - Actual medication use



Actual Medication Use

- Refers to how a person routinely takes his or her medications
- This may differ from the instructions:
  - provided by a healthcare professional or
  - printed on the medication label
- Should be a more accurate representation which medications the patient is consuming and how

Actual Medication Use *is key to ensuring that an accurate history is obtained and will assist in the prevention of adverse drug events*

We open the vial with the patient and say "tell me how you use/take these".

Sharon Sobol, Pharmacist, Cape Breton

Collect

- **Document the BPMH, include:**
  - Sources of information used to complete history
  - Complete medication details for each medication
  - Indicate if actual use differs from prescribed use
  - Community pharmacy name and number
  - Details on medication management in the home
  - Use of compliance packs

FRONT SIDE

MEDICATION RECONCILIATION FORM

This is a schematic representation of potential elements of a MedRec form for use in paper or electronic charts.

BEST POSSIBLE MEDICATION HISTORY

Sources of Information Use to Complete History:

- [x] (please check all that apply)
- [ ] Patient interview
- [ ] Caregiver interview
- [ ] Medication vials / boxes
- [ ] Blister packs
- [ ] Patient's own list
- [ ] Community pharmacy profile
- [ ] MedsCheck
- [ ] Ontario Drug Benefits Drug Profile Viewer
- [ ] Specialist letter
- [ ] Hospital Discharge Summary
- [ ] Best Possible Medication Discharge Plan
- [ ] Rapid Response Nurse BPMH
- [ ] Ontario Telemedicine Network BPMH
- [ ] Other: _____

Date:

PATIENT'S NAME:

COMMUNITY PHARMACY NAME:

Phone Number:

Medication Management:

- [ ] Self-administration
- [ ] Caregiver administration

Compliance packs:

- [ ] No
- [ ] Yes If yes, [ ] Pharmacy filled blister pack [ ] Personal dosette

Medication Allergies:

Reaction:

Medication Name	Dose	Route	Frequency	Indication	Start Date	Prescriber	Comments

Determine practice documentation guidelines (e.g., brand names v. generic names, combination products etc.)

Include additional information that would provide value in establishing the patient's medication regimen

Are there differences between the BPMH compared to what is documented in the patient's chart?

Recommendations by the nurse or pharmacist to PCP on possible options for resolution of the discrepancy

BPMH completed by:

RECONCILIATION PLAN

Discrepancies Identified	Suggested Resolution Plan	Reconciliation Decision

Reconciliation completed by:

BACK SIDE

RECONCILED MEDICATION LIST FLOWSHEET

Medication Name	Dose	Route	Frequency	Indication	Prescriber	Date/Initials	No Change	Modify
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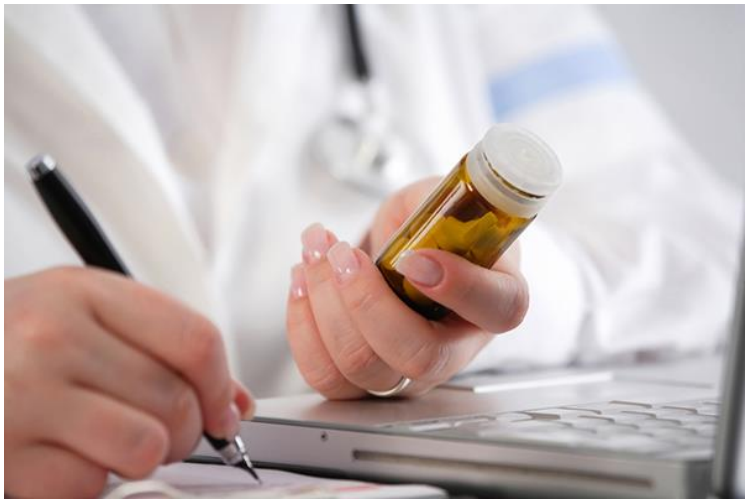
The reconciled list should be the current and accurate medication list that is updated at each subsequent patient visit

Compare

- **Compare the BPMH** with information in the patient's chart held by the primary care provider
- **Identify any discrepancies** between these two sources of information



Discrepancies

- Differences in medication details that are identified by comparing different sources of information, e.g.,:
  - what the patient is actually taking and what is recorded in other sources of information
  - list recorded in one healthcare sector (acute care) compared to list recorded in another sector (primary care)

Discrepancies

- The following are examples of specific discrepancies:
  - absence from the list of a medication that the patient is currently taking (omission)
  - presence on the list of a medication that the patient is no longer taking (commission)
  - incorrect or missing details about a medication (e.g., dose, route, or frequency)

Correct

- **Correct** the discrepancies as appropriate through discussion with the patient or caregiver.
- **Determine the cause** of the discrepancy, e.g.,:
  - Did the patient not understand how to take the prescribed medications properly?
  - Did a clerical error lead to the discrepancy?
  - Did the patient intentionally choose to take the medications differently than prescribed, because of a side effect, on the advice of a friend, or on the basis of information found on the internet?
  - Did the prescriber who initiated the medication not fully appreciate the other medications that the patient was taking?

Correct

- **Identify** the best course of action
- **Update** the patient's chart to reflect the change which could include:
  - the patient prefers to take the medication as he or she sees fit and is unwilling to change
  - the patient was unclear on how to take the medication but is willing to start taking the medication as prescribed,
  - a prescribing error and a change in medications is necessary to correct the error

Correct

- **Update the BPMH** to accurately reflect the patient's current medication regimen
- This becomes the ***reconciled list***
- **Document the reconciled list** in a clearly visible and easily accessible place in the patient's chart

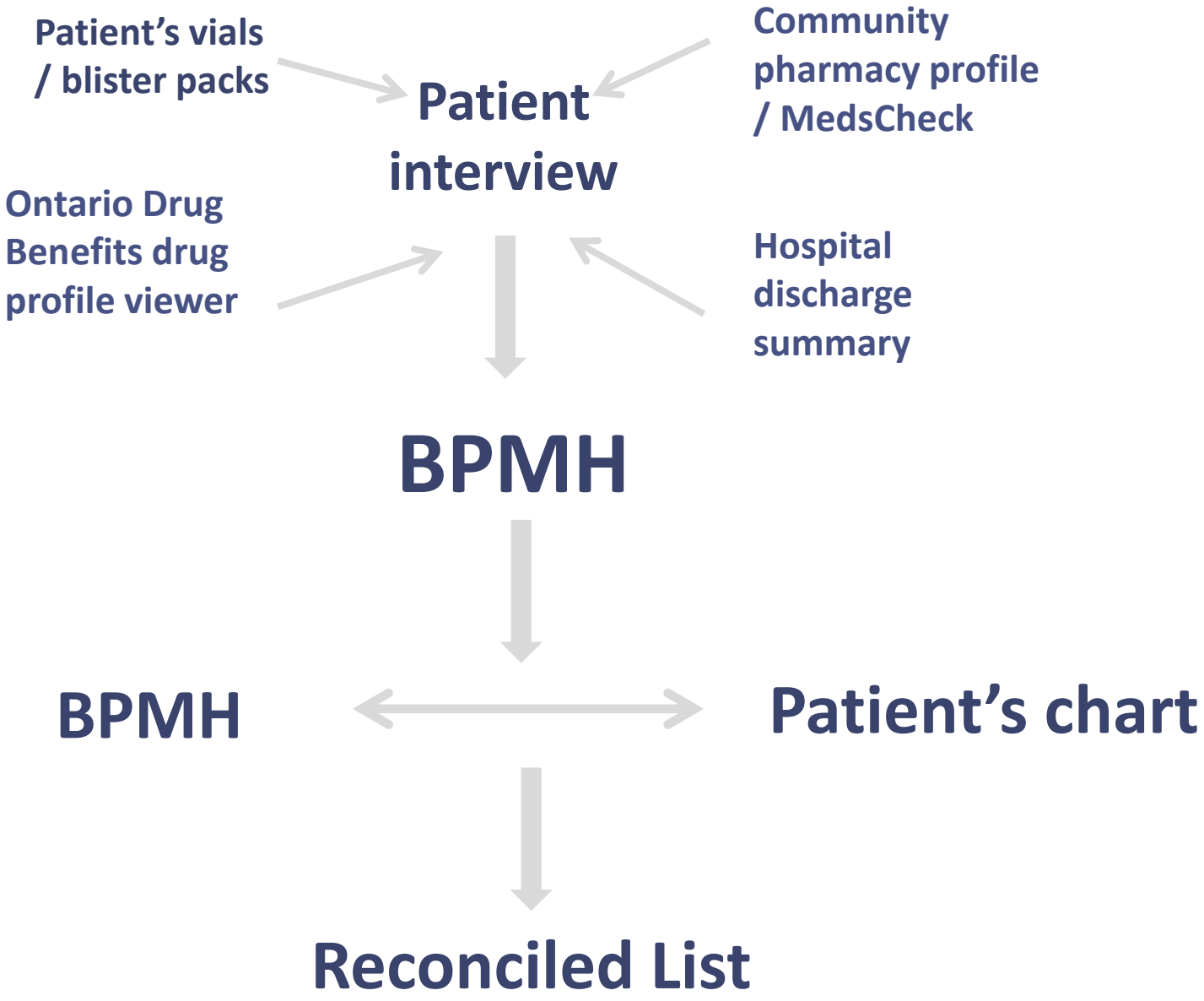
Communicate

- **Communicate** any medication changes to the patient
- **Verify** the patient's understanding of their medication regimen
- **Convey** to the patient the importance of keeping an up-to-date medication list
- **Provide** the reconciled list to the patient's community pharmacist and other involved in their care

Continually

- At subsequent patient visits, **update the reconciled list** with any recent medication changes made to the patient's medication regimen

- **Verify actual use** at each patient visit, even if medication changes have not occurred



Sources of Medication Information

Patient / Caregiver Interview

Benefits

- Assist with determining actual medication use
- Can provide an opportunity to assesses the patient's / caregiver's understanding of medication regimen

Limitations

- Information may be based solely on patient / caregiver recall

tip

Determine actual medication use

Primary Care Provider Chart

Benefits

- Easily accessible
- May include indications for medications

Limitations

- May not include nonprescription medications, vitamins, natural products etc.
- May not include medications prescribed by other practitioners
- May not reflect actual medication use by patient
- May only be as current as last visit with patient

Patient's Own Lists

Benefits

- May include all the medications a patient is taking (i.e., those prescribed by multiple prescribers and dispensed at multiple pharmacies)

Limitations

- May only contain information that the patient has remembered or deemed appropriate to record
- May not reflect recent changes
- May not include nonprescription medications, vitamins, natural products etc.
- May not reflect actual medication use

Patient's Own Lists

- Determine who wrote the list
- Confirm the date it was last updated
- Determine actual medication use
- Determine if the patient is taking medications that are not recorded on the list

Medication Vials / Packages

Benefits

- Usually includes complete medication information
- Clinician is able to assess contents
- Patient can visualize the medication which may cue their memory on how they actually take the medication

Limitations

- May not reflect actual medication use

Medication Vials / Packages

- Check the patient's name and date on the vial
- Open the vials to ensure the medication inside the vial matches the label
- Determine if any changes have been made since the vials were last dispensed
- Determine actual medication use
- Be aware that directions on medication vials may not accurately reflect medications that are: taken on "as needed" basis or have fluctuating doses

Blister / Compliance Packs

Benefits

- Usually includes complete medication information
- Clinician is able to assess contents of the blister pack
- Patient can visualize the medication which may cue their memory on how they actually take the medication

Limitations

- May not reflect actual medication use
- May not contain all the medications a patient is taking

Blister / Compliance Packs

- Check the patient's name and date on the blister pack
- Determine if any changes have been made since the blister pack was last filled
- Determine actual medication use
- Ask about medications that cannot fit inside the pack (e.g. inhalers, patches, eye/ear drips, refrigerated medications, injections, liquid medications)
- May not include medications that are: taken on an "as needed" basis, have fluctuating doses (e.g., warfarin, prednisone), nonprescription medications, vitamins, natural products etc.

Community Pharmacy Lists

Benefits

- Usually includes complete medication details
- Able to retrieve one year of past medication information or longer

Limitations

- Only includes medications dispensed from that particular community pharmacy
- May not include nonprescription medications, vitamins, natural products etc.
- May not reflect actual medication use

Community Pharmacy Lists

- Determine if the patient frequents more than one pharmacy
- Confirm actual medication use
- Confirm with the patient if they are taking any other medications
- Confirm allergies that the community pharmacy has on record

Meds Check

Benefits

- Should include all the medications a patient is taking including prescription and others.
- Should include medications dispensed at pharmacies other than the pharmacy performing the MedsCheck
- Should include complete medication details

Limitations

- Information is only as accurate as the day of the review
- Appearance can vary from pharmacy to pharmacy

Meds Check

- Confirm if there are any other changes since the time the medication review was done
- Verify if the review shows actual medication use or only prescribed directions
- Not all patients may be eligible for a MedsCheck
- Bear in mind that a pharmacy profile printout does not qualify as a medication review (i.e., MedsCheck)

Ontario Drug Benefits Drug Profile Viewer (ODB DPV)

Benefits

- A record of all ODB medications that are dispensed
- Provides prescriber and community pharmacy info for each medication that is listed.
- Able to retrieve one year of past medication information
- Indicates if a MedsCheck was completed
- As current as last medication dispensed

Limitations

- Only records what was dispensed by community pharmacies
- Does not include complete medication details
- Patients may choose not to have all or certain medications appear on the DPV
- Does not record if medications were discontinued
- Does not include medications not covered by ODB

Best Possible Medication Discharge Plans (BPMDP)

Benefits

- Should include complete medication
- Should include information about what medications were started, stopped or modified during the patient's previous hospital stay

Limitations

- Information may only be as current as a the date of discharge
- May not reflect actual medication use

Best Possible Medication Discharge Plans (BPMDP)

- Check the date on the discharge plan
- Confirm if there are any other changes since the time of discharge
- Determine actual medication use
- Be aware of medication adjustments due to auto-substitution policies and medication adjustments due to formulary restrictions
- Original prescriber information may become lost (i.e., prescriber will appear as discharging physician and not original prescriber)

Hospital Discharge Summaries

Benefits

- May provide an explanation of changes made to medications during hospital visit

Limitations

- May not account for all medications the patient is taking
- May not provide complete medication details
- May be a delay in the primary care provider receiving the discharge summary
- Medications may be changed due to auto-substitution policies in hospitals

Specialist / Consult Notes

Benefits

- May include rationale for medications added or changed

Limitations

- May not include complete medication details
- May not account for all medications the patient is taking
- May be a delay in the primary care provider receiving the information

Rapid Response Nurses BPMH

Benefits

- BPMH completed by rapid response nurses should reflect changes made to medications in hospital.
- Should include complete medication details
- Should include all the medications a patient is taking including prescription and others

Limitations

- Rapid response nurses may not have been provided with complete discharge information

Ontario Telemedicine Telehomecare Program Medication Lists

Benefits

- Should include complete medication details
- Should include all the medications a patient is taking including prescription and others
- Many opportunities to confirm the patient's actual medication regimen

Limitations

- Service not available in all LHINs

Potential Players in the MedRec Process

- Patient, caregiver
- Physician, nurse practitioner
- Team pharmacist
- Nurse
- Community pharmacist
- Administrative assistant, clerical staff, office manager

Implementation Strategies

Make it Meaningful

- Complete a baseline audit of patient charts in your practice
  - Audit 100 patient charts who are on X or more medications
  - Set up appointments with each patient and ask them to bring in all of their medications or a current medication list
  - Compare what the patient brought in with the prescribed medication list on the patient's chart

Assemble a Team

- Have we included a representative from each discipline that touches the work?
- Have we considered including non-registered staff who might also support the work?
- Have we identified a team leader?
- Do we have a physician champion on the team?
- Should we include a constructive skeptic on our team?
- Do we have someone with QI skills to facilitate our progress?
- Should we consider an external stakeholder?

Define the Aim

- What is the goal of implementing MedRec?
- How do you want to accomplish this?
- Over what time period?

"We will implement MedRec for all patients in our clinic in a step-wise approach. We will accomplish this within 2 years and decrease the number of discrepancies in patients' charts by XXX."

OR

"We will perform MedRec within 7 days of discharge for 90 % of patients recently discharged from hospital by June of 2015."

Determine Measures

- **Outcome measures** – capture the "voice of the patient or customer"; clinical outcomes and or system performance
- **Process measures** - track whether the system is working as planned
- **Balancing measures** – measures to ensure that changing one part of the system does not cause new problems in other parts of the system

% reconciled = # of patients with a reconciled list / total # of eligible patients X 100

Numerator

- How to determine that a reconciled list was documented:
  - Does it require the provider to specifically document 'MedRec completed'?
  - Is it based on a chart review and if a reconciled list can easily be identified?

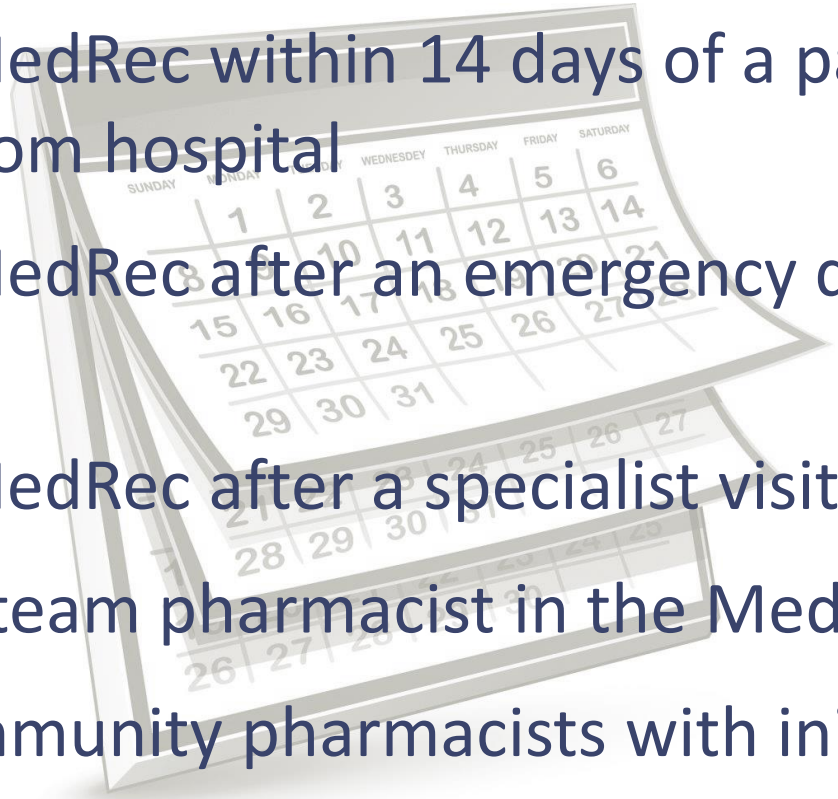
Denominator

- What constitutes an 'eligible patient':
  - Patients on X number of medications
  - Patients who have a diagnosis of an Ambulatory Care Sensitive Condition
  - Patients who have been discharged from hospital 7 days ago

Quick Improvements

- Use screening tools to direct MedRec efforts toward high-risk patients
- Develop a form or a specific section in the chart to document BPMH and the reconciled medication list
- Print medication lists from electronic medical record or patients' charts for patients to review in the waiting room before their appointments
- Encourage patients to bring all of their medications to all visits
- Use teach-back method to verify patients' understanding of their medication regimens

Improvements you can start within a couple of months



- Complete MedRec within 14 days of a patient's discharge from hospital
- Complete MedRec after an emergency department visit
- Complete MedRec after a specialist visit
- Involve the team pharmacist in the MedRec process
- Provide community pharmacists with initial reconciled list

Improvements you can start within a couple of months

- Provide patients with tools to record and update their medication lists
- Liaise with community pharmacist to complete BPMH or MedsCheck
- Ask office administration assistant to call patients in advance of their appointments reminding them to bring their medication lists and medications
- Include a review of patients' medications in the intake process completed by nursing staff

Longer-term process improvement goals

- Use technology to facilitate and improve MedRec
- Initiate formal MedRec process during annual “check-up” visit
- Build MedRec into the documentation workflow (e.g., review of specialists’ notes for any medication changes or discrepancies, with such changes or discrepancies prioritized for review and resolution or update, as appropriate)
- Conduct MedRec for all patients in the primary care practice setting

Potential Challenges – Patient or Provider Level

- Responsibility for medication management (rests largely with the patient)
- Limited health literacy on part of patient
- Language and cultural barriers
- Patient's lack of awareness of importance of bringing medications and up-to-date medication lists to primary care visits

Potential Challenges – Patient or Provider Level

- Patient's use of multiple pharmacies
- Infrequent or periodic contact with primary care provider
- Lack of time for provider to complete MedRec
- Lack of training about how to conduct systematic, comprehensive medication histories and reconciliation processes
- Effort and dedication required for frequent modification of list

Potential Challenges –System Level

- Limited access to information sources
- Unreliability or incompleteness of information sources or existence of multiple conflicting sources
- Difficulty of sharing information among providers
- Poor design of electronic medical record systems used in primary care offices (insufficient to fully support MedRec requirements)
- Lack of availability of fully integrated provincial health record

To access the Ontario Primary Care Medication Reconciliation Guide visit:

www.ismp-canada.org/medrec