HEALTH QUALITY ONTARIO'S
Quality Compass
Navigate from knowledge to action

Ontario
Health Quality Ontario
Qualité des services de santé Ontario

Health Quality Ontario Home and Community Care Medications Management

Best Practices

Updated on October 30, 2014

Evidence-informed best practices are based on quality evidence and should be implemented into practice to optimize outcomes. Listed below you will find best practices graded according to the level of evidence. To view a description of the levels of evidence, **click here**.

Change ideas are specific and practical changes informed by experience and research that focus on improving specific aspects of a system, process or behaviour. To learn more about change ideas see the QI: Getting Started tab.

Medication management is complex. Recent scoping reviews indicate that home health care professionals need to work together, increase communication and knowledge to address medication issues.[1, 2] Polypharmacy, non-adherence, lack of monitoring and side effects contribute to unsafe situations.[3-6] Evidence shows that pharmacists trained to do comprehensive medication reviews can lead to positive outcomes.[6] There are also suggestions to engage and educate clients and caregivers and to improve the skills and assessment capabilities of home health professionals.[2,7]

Listed below are best practices to reduce and prevent falls and related injuries. These are based on literature reviews of evidence for each practice. To help you move from best evidence to best practice, **click on the + button next to each best practice** to find implementation details, as well as change ideas that you can test using a PDSA approach.

For each best practice, indicators to measure these practices are noted by the indicator number they are referred to on the measurement page.

Evidence-Informed Best Practices

Safe medication handling

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox

Safe medication handling
(i.e., prescribing, transcribing, dispensing, administration, monitoring, storage, disposal and delivery)

Relevant Indicators: i10
We have suggested the types of indicators you may use to measure the impact of each best practice. Indicator numbers refer to the indicators under the Measurement tab.

Designing a safe medication system is based on many principles and often requires redevelopment or implementation of new strategies and technologies.
See Medication Error Prevention "Toolbox"

Prescribing

- Avoids the use of ***dangerous abbreviations***
  (see toolbox for link to list of dangerous abbreviations) on prescriptions
- Orders with dangerous abbreviations are clarified with the prescriber by a pharmacist or nurse
- Verbal or telephone orders taken by nurses - as per the 2014 College of Nurses Medication Standards
- Verbal orders taken by a pharmacist are to be communicated to the home care team using a standardized, timely process
- Faxing of prescriptions must originate from the prescriber to the pharmacy directly (as per Ontario College of Physicians guidelines)
- Safe prescribing – the prescriber is aware of client-specific parameters and has the knowledge to safely prescribe the medication (see Beers criteria for potentially inappropriate medication use in older adults in toolbox)

Transcribing

- Follow best practice as defined by Ontario College of Physicians and College of Nurses of Ontario (see toolbox)
- Avoids the use of dangerous abbreviations (see toolbox for link to list of dangerous abbreviations) on prescriptions
- Orders with dangerous abbreviations are clarified with the prescriber by a pharmacist or nurse

Dispensing/Labelling

- All single entity and compounded medications and chemotherapy dispensed by pharmacists are labelled appropriately as per Ontario College of Physicians and Cancer Care Ontario guidelines
- Pharmacy prepared weekly compliance packages/pill organizers are labelled and described as mandated by Ontario College of Physicians. If problem identified, contact the dispensing pharmacy and request this to be corrected
- Clear labelling on all products (including small items such as eye drops, creams) – if not present, nurse to seek clarification from pharmacy and get replacement products with proper labels
- All prescription medications (IV/oral) are checked for drug interactions

Repackaging

- When a nurse fills medication from previously dispensed vials/bottles/boxes into a weekly pill organizer there must be a clear medication plan. If discrepancies are noted, medication reconciliation must be done and discrepancies clarified (see Medication Reconciliation section) to ensure consistent and correct filling
- Contents of any repackaged medications should be labelled appropriately

Administration

- As per College of Nurses of Ontario Medication Standards 2014
- Chemotherapy administration as per Canadian Association of Nurses in Oncology
- Medication reconciliation is performed by a nurse or pharmacist prior to a Personal Support Worker (PSW) supporting a client with medication reminders. PSWs that are assisting in reminding clients to take medications or administering medications need an up-to-date medication list and clear instructions on how to advise the client correctly. If ambiguity exists, PSWs need to contact the personal support worker supervisor for assistance.
- A pharmacist is available to providers to answer administration and compatibility questions at all times
- Appropriate administration of client's self-administered medications is verified by a knowledgeable health care professional (e.g., technique, timing, avoidance of drug or food interactions). Programs such as MedsCheck or MedsCheck at Home are available from the client's community pharmacist.

Monitoring

- Procedures are set for identifying and addressing medications that can cause harm, such as:
  - Hypoglycemia

- BEERS criteria for potentially inappropriate medication use in older adults [http://www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/2012], 2012
- College of Physicians and Surgeons of Ontario, Policy: Prescribing Drugs [http://www.cpso.on.ca/Policies-Publications/Policy/Prescribing-Drugs#After]
- Do Not Use - dangerous abbreviations, symbols and dose designations [http://www.ismp-canada.org/download/ISMPCanadaListOfDangerousAbbreviations.pdf], ISMP Canada, July 2006
- Practice Policies and Guidelines [http://www.ocpinfo.com/regulations-standards/policies-guidelines/], Ontario College of Pharmacists
- College of Nurses - Practice Standard - Medication 2014 [http://www.cno.org/Global/docs/prac/41007_Medication.pdf]
- Medication Errors: Why they happen, and how they can be prevented [http://journals.lww.com/ajnonline/Fulltext/2005/03001/Medication_Errors__Why_they_happen,_and_how_they.5.aspx#P9], American Journal of Nursing, 2005
- Patient Safety Issues: Key Components of Chemotherapy Labelling [https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=50191], Cancer Care Ontario, 2009
- Analysis of Med Incidents Involving Drug Interactions [http://www.ismp-canada.org/download/safetyBulletins/2012/ISMPCSB2012-05_Analysis_of_Med_Incidents_Involving_Drug_Interactions.pdf], ISMP Canada, 2012
- Antimicrobial drug interactions and Warfarin [http://prescribersletter.therapeuticresearch.com/pl/ArticlePDF.aspx?cs=&s=PRL&DocumentFileID=0&DetailID=280823&SegmentID=0] Pharmacist's Letter 2012
- Medication Safety Self-Assessment for Community/Ambulatory Pharmacy [http://www.ismp-canada.org/amssa/index.htm]
- Standards and Competencies for Cancer Chemotherapy Nursing Practices [https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=156524], Canadian Association of Nurses in Oncology
- What is a PSW's Role in Medications? [http://www.psno.ca/uploads/1/0/1/9/10197937/psw_role_in_medication_2013_final.pdf] *Personal Support Network of Ontario and Seniors Health Research Transfer Network, 2013*
- MedsCheck and MedsCheck follow-up [http://www.health.gov.on.ca/english/providers/pub/drugs/meds_check/pdf/meds_guide_20080725.pdf]
- MedsCheck at Home [http://www.health.gov.on.ca/en/pro/programs/drugs/medscheck/docs/home.pdf], *Ministry funded community pharmacist programs*
- Accreditation Canada. Qmentum Program. Standards. Medication Management Standards for Community-Based Organizations. 2014. Available from Accreditation Canada [http://www.accreditation.ca/customized-managing-medications]
- Safe disposal of prescription drugs [http://healthycanadians.gc.ca/health-sante/medicine-medicament/disposal-defaire-eng.php?utm_source=facebook_hcdns&utm_medium=social&utm_content=June9_expiredmeds_EN&utm_campaign=social_media_14], Government of Canada, May 2014
- Ontario Medications Return Program and Ontario Sharps Collection Program [http://www.healthsteward.ca/returns/ontario] *(also provides free sharps and cytotoxic containers)*
- Reminding Canadians to safely use and dispose of fentanyl patches to prevent accidental exposure [http://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2013/36239a-eng.php] Healthy Canadians, 2013
- Fentanyl patch return program

	• Infections (especially on chemotherapy) • Constipation related to opioids • Renal and ototoxicity (ear damage) due to Aminoglycosides or Vancomycin • Over or under anticoagulation • Bradycardia (slow heart rate) • Falls • Medication related laboratory testing policy is developed and implemented for timely monitoring of medications that may lead to toxicity (e.g., digoxin, phenytoin, warfarin) **Disposal** • Process defined on how to assist clients with disposing expired/discontinued medications and sharps (free sharp containers from pharmacy, returns to community pharmacy, home visiting pharmacist pick-up). • Safe disposal of chemotherapy and IV medications has been defined and implemented **Delivery** • As per Ontario College of Physicians guidelines • Receipt of self-managed medication - client/caregivers are vigilant in ensuring that the medications delivered are for them **Storage** • Keeping children safe from accidental ingestion (or application of patches) – inform clients and caregivers that weekly compliance packages and pill organizers are not child-safe • Safe and appropriate storage for each medication is validated by a knowledgeable health care professional • Use of a lock box may be recommended in some situations	[http://www.pcchu.ca/wp-content/uploads/2013/04/Fentanyl-Patch-Return-Program-FAQ.pdf] Peterborough County-City Health Unit, 2013 • Keeping Families Safe Around Medicines [http://issuu.com/safekids/docs/medicine_safety_study_2014/1?e=4874392/7072891] SafeKids.org, March 2014

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Safe medication handling

Type of Evidence: (Expert Opinion)*

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Collaborative team approach

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
A collaborative team approach can contribute to safer medication management (roles and responsibilities, education, communication) **Relevant Indicators:** i1, i7, i8 *We have suggested the types of indicators you may use to measure the impact of each best practice. Indicator numbers refer to the indicators under the Measurement tab.*	**Define each provider's role (scope of practice) in medication management.** Each health care professional can assist to help ensure adverse drug events are minimized or avoided. • Client/Caregiver • Care coordinator • Nurse/Nurse practitioner • Personal support worker • Pharmacist • Allied health practitioners • Primary care physician **Medication management training** for all home health providers to identify medication related risk situations and to create an action plan to resolve issues. This should include a training module and a competency assessment. **Medication reconciliation training** for nurses, care coordinators, pharmacists and/or pharmacy technicians. Audits should be completed to validate whether the systematic process is being followed. **Engage** primary care physicians by soliciting input for program designs, working with the LHIN's Primary Care Physician Lead, offering education sessions and regular communications (e.g., newsletters). Create communication tools that are succinct and minimize workload for the physician. Alert primary care physicians to key issues that require input to improve patient care. **Access to a pharmacist** by telephone or in-person to support care coordinators, nurses, allied health professionals, PSWs and their supervisors for medication related questions. **Access to a physician** – explore home visits by doctors in your area (e.g., MedVisit, TorontoHousecalls, MDHomeCall). HealthCare Connect also helps to find doctors (of which some do home visits). Delineates **when to refer to a community pharmacist vs specialized pharmacist** - based on funding, client mobility, accessibility and skill set required to meet the needs of the client. **Communicate** about medication management issues with all providers. An interdisciplinary approach allows for collaboration.	• Medication Problem A.c.t.i.o.n. Plan. A Resource Guide for Home Support Workers [http://www.pharmacists.ca/cpha-ca/assets/File/education-practice-resources/HomeCareACTIONGuideEN.pdf] *Canadian Pharmacists Association, 2004* • Medication Problem Action Plan Screening Tool for Home Support Workers [http://www.pharmacists.ca/cpha-ca/assets/File/education-practice-resources/HomeCareACTIONScreenEN.pdf], *Canadian Pharmacists Association, 2004* • Medication Communication Failures Impact Everyone. Medication Safety: We all have a role to play [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/MedRec%20Communication%20Failures%20Impact.pdf] • Example Medication Management Staff Competency Quiz [http://www.stratishealth.org/documents/HCP_HH_MedMgmtStaffCompetency_050708.pdf] • Medication Management - Be Safe and Take. Nurse Enrichment Program [http://health.mo.gov/seniors/hcbs/pdf/medmgmtnurseenrichment.pdf] • What a Senior Care Pharmacist can do for you [http://www.cscpharm.com/what-a-senior-care-pharmacist-can-do-for-you.html], Canadian Society of Consultant Pharmacists • The Pharmacist in Home Care [http://www.homecareontario.ca/documanager/files/news/pharmacist-in-home-care-final-2013.pdf], *Ontario Home Care Association* • MedsCheck at Home [http://www.health.gov.on.ca/en/pro/programs/drugs/medscheck/docs/home.pdf], Ministry of Health and Long-Term Care • Integrating Pharmacy Services in Health Links to Improve the Care of Patients with Complex Needs [https://www.opatoday.com/Media/Default/Health%20Links/Pharmacy%20and%20Health%20Links%20-%20Primer%20%28Formatted%29.pdf], Ontario Pharmacists Association, 2014 • What is a PSW's Role in Medications? [http://www.psno.ca/uploads/1/0/1/9/10197937/psw_role_in_medication_2013_final.pdf] *Personal Support Network of Ontario and Seniors Health Research Transfer Network, 2013*

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Collaborative team approach

Type of Evidence: (High)*

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Use screening to assess and mitigate the risk of an adverse drug event

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
Screening and continuous monitoring to assess and mitigate the risk of an adverse drug event **Relevant Indicators:** i5, i6, i15, i18, i19 *We have suggested the types of indicators you may use to measure the impact of each best practice. Indicator numbers refer to the indicators under the Measurement tab.*	Actively promote awareness and educate staff and service providers about medication risk situations, such as: • High alert medications • Medications that increase risk of hospitalization; medication errors on transition from hospital to home • Medications that increase risk of falls, reduce cognition, exacerbate delirium Use screening tools to identify clients at risk from their medications. *See Toolbox for some examples* Delineate which discipline best meets the needs of the client to minimize their risk. Ensure drug interaction screening is done if the client is using multiple pharmacies or is using non-prescription or herbal products. Confirm that clients taking medications that require laboratory monitoring are able to and are attending their appointments. If not, create a plan to address lack of attendance. Assess a client's (or caregiver's) ability to safely administer the medication regimen. *See Toolbox for some examples* Clients with medication complexity and reduced cognition may benefit from a medication review. Clients who are falling should have their medications assessed. Define a referral pathway that ensures clients with medication risk issues are assessed in a timely manner by a pharmacist, nurse practitioner or physician. Consider follow-up interviews post-hospital discharge by a pharmacist to screen for at risk clients.	• BEERS criteria for potentially inappropriate medication use in older adults [http://www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/2012], 2012 • Safer Medication use in Older Persons Information Page [https://www.ismp-canada.org/beers_list/#!=tab2], *ISMP Canada* • ISMP list of High Alert Medications in Community/Ambulatory Healthcare [http://www.ismp.org/communityRx/tools/highAlert-community.pdf] ISMP (United States), 2011 • Drug interactions in the Geriatric population [http://www.ismp-canada.org/beers_list/downloads/Drug-DrugInteractions.pdf], ISMP Canada, 2013 • Screening for delirium, dementia, and depression in the older adult [http://rnao.ca/bpg/guidelines/screening-delirium-dementia-and-depression-older-adult], Registered Nurses' Association of Ontario Guideline, 2012 Examples of some medication risk screening tools: • Medication Risk Questionnaire [http://www.champ-program.org/static/HBL%20Q-AIRE-Rev%20Jan13%20for%20CHAMP.pdf], HbL Pharmaconsulting, 2012 • The 8Ps: Assessing Your Patient's Risk for Adverse Events after Discharge [http://www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/PDFs/TARGET.pdf] Society of Hospital Medicine • The Medication Risk Assessment Tool "MedRAT" [http://tools.patientsafetyinstitute.ca/Communities/MedRec/Shared%20Documents/Forms%20and%20Tools/Home%20Care/Medication%20Risk%20Assessment%20Tools%20-%20MedRAT/Medication%20Risk%20Assessment%20Tool.doc] Safer Healthcare Now! and CPSI Canada • Medication Management Instrument for Deficiencies in the Elderly [http://www.champ-program.org/static/MedMaide%20Checklist_manuscript_0606_final.pdf], *Assessing ability to self-administer*

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Use screening to assess and mitigate the risk of an adverse drug event

Type of Evidence: (High)*

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Medication reconciliation at admission or readmission to home care from hospital

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
Medication reconciliation (management) at admission or readmission to home care from hospital **Relevant Indicators:** i2, i11, i9, i16 *We have suggested the types of indicators you may use to measure the impact of each best practice. Indicator numbers refer to the indicators under the Measurement tab.*	Medication discrepancies happen when clients transition from hospital to home. For this reason the process of medication reconciliation (MedRec) is particularly valuable for preventing adverse drug events due to inappropriate or lack of medication use post-discharge. As of 2012, only 50% of hospitals had incorporated discharge medication reconciliation. Some evidence indicates that nurse pharmacist collaboration resolves more discrepancies. *MedRec is a formal, systematic process in which health care professionals partner with clients to ensure accurate and complete medication information transfer at interfaces of care.* Creating a complete and accurate Best Possible Medication History (BPMH). *See Toolbox: Best Possible Medication History Tool* • Includes all prescription and non-prescription medications (including herbals and supplements) the client is taking including the name, dose, route and frequency • Systematic interview with the client and/or their caregiver • Review of at least one additional source of the client's medication information (e.g., previous medication list, community pharmacy profile) Comparing Best Possible Medication History (BPMH) to hospital discharge orders to ensure all medication orders have been assessed Identifying and resolving all discrepancies or differences. *See Toolbox: The Medication Reconciliation Process in Home Care Summary* Documenting and communicating any changes to the medication orders to the client's health care team Forwarding a finalized copy of the medication list to the primary care physician, CCAC, service provider organization, and community pharmacy Encouraging the client to show the medication list to their health care providers Teaching the client or caregiver how to use available technologies so they can maintain their own medication lists. *See Toolbox: Knowledge is the best medicine*	• Best Possible Medication History [http://www.ocpinfo.com/practice-education/practice-tools/articles/medication-history-guidelines-medication-reconciliation/], Ontario College of Physicians, March 2007 • Medication Reconciliation in Home Care. Getting Started Kit [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/Home/Medication%20Reconciliation%20in%20Home%20Care%20Getting%20Started%20Kit.pdf], Safer Healthcare Now! January 2011 • The Top 10 Practical Tips. How to obtain an efficient, comprehensive and accurate Best Possible Medication History [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/home/Top%2010%20Practical%20Tips%20-%20How%20to%20Obtain%20an%20Efficient%20Comprehensive%20and%20Accurate%20Best%20Possible%20Medication%20History%20(BPMH).pdf], ISMP Canada and Safer Healthcare Now! 2008 • The Medication Reconciliation Process in Home Care Summary [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/home/The%20MedRec%20Process%20in%20Home%20Care.pdf], Safer HealthCare Now! • Medication Communication Failures Impact Everyone. Medication Safety: We all have a role to play [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/MedRec%20Communication%20Failures%20Impact.pdf] • Jump into MedRec: BPMH training across the continuum [http://www.ismp-canada.org/download/education/Flyer_JumpIntoMedRec.pdf], ISMP Canada workshop for pharmacists, registered nurses, registered nurse practitioners and pharmacy technicians • Medication Reconciliation ROPs [http://www.accreditation.ca/sites/default/files/rop-handbook-2014-en.pdf], Accreditation Canada • ISMP: Med Rec Initiative [http://www.ismp-canada.org/medrec/], ISMP Canada • Knowledge is the best medicine - website or App [http://www.knowledgeisthebestmedicine.org/index.php/en/iphone_app/], *for keeping up to date medication list and health records*

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Medication reconciliation at admission or readmission to home care from hospital

Type of Evidence: (High)*

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Medication reconciliation at admission to home care from community, annual assessment or service change

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
Medication reconciliation at admission to home care from community **Relevant Indicators:** i3, i9, i11, i16 *We have suggested the types of indicators you may use to measure the impact of each best practice. Indicator numbers refer to the indicators under the Measurement tab.*	*MedRec is a formal, systematic process in which health care professionals partner with clients to ensure accurate and complete medication information transfer at interfaces of care.* The admitting care coordinator or visiting nurse can perform this initial MedRec, or the community pharmacist can be contacted to perform a MedsCheck or MedsCheck at home if the client is eligible. All the steps below should be completed Create a complete and accurate Best Possible Medication History (BPMH). *See Toolbox: Best Possible Medication History Tool* • Includes all prescription and non-prescription medications (including herbs and supplements) the client is taking including the name, dose, route and frequency • Involves a systematic interview with the client and/or their caregiver Review of at least one additional source of the client's medication information (retrieve medication lists from the family doctor and their community pharmacy to compare with client's BPMH). Compare the BPMH against label instructions and medications lists to identify any differences with what is ordered/recorded (medication reconciliation). Identify and resolve all discrepancies or differences. *See Toolbox: The Medication Reconciliation Process in Home Care Summary* Document and communicate any changes to the medication orders to the client's health care team. Forward a finalized copy of the medication list to the primary care physician, CCAC and community pharmacy. Encourage the client to show the medication list to their health care providers. Teach the client how to use available technologies so they can maintain their own medication lists. *See Toolbox: Knowledge is the best medicine*	• Conducting a Best Possible Medication History and Resolving Medication Discrepancies in the Community [https://www.ismp-canada.org/download/Conducting_a_Best_Possible_Medication_History_and_Resolving_Medication_Discrepancies_in_the_Community_oct09.pdf] • MedsCheck programs [http://www.health.gov.on.ca/en/public/programs/drugs/medscheck/] • Best Possible Medication History [http://www.ocpinfo.com/practice-education/practice-tools/articles/medication-history-guidelines-medication-reconciliation/], Ontario College of Physicians, March 2007 • The Top 10 Practical Tips. How to obtain an efficient, comprehensive and accurate Best Possible Medication History [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/home/Top%2010%20Practical%20Tips%20-%20How%20to%20Obtain%20an%20Efficient%20Comprehensive%20and%20Accurate%20Best%20Possible%20Medication%20History%20(BPMH).pdf], ISMP Canada and Safer Healthcare Now! 2008 • Medication Reconciliation in Home Care. Getting Started Kit [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/Home/Medication%20Reconciliation%20in%20Home%20Care%20Getting%20Started%20Kit.pdf], Safer Healthcare Now! January 2011 • The Medication Reconciliation Process in Home Care Summary [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/home/The%20MedRec%20Process%20in%20Home%20Care.pdf], Safer HealthCare Now! • Knowledge is the best medicine - website or App [http://www.knowledgeisthebestmedicine.org/index.php/en/iphone_app/], *for keeping up to date medication list and health records*

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Medication reconciliation at admission to home care from community, annual assessment or service change

Type of Evidence: (High)*

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Medication Reconciliation at discharge from home care to long-term care

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
Medication reconciliation at discharge from home care to long term-care **Relevant Indicators:** i4, i9, i11, i16 *We have suggested the types of indicators you may use to measure the impact of each best practice. Indicator numbers refer to the indicators under the Measurement tab.*	Transfer an accurate up-to-date medication list (with any problems already resolved with the client's existing primary care physician) to long-term care (LTC). Establish a process to contact the client's community pharmacist (by phone call or fax referral sheet) to request a MedsCheck or MedsCheck at home (client qualifies if frail, not mobile, or has difficulties attending outside appointments). Request this service to be completed within five days (or before, if client is admitted to long-term care). If unable to access this service from the client's community pharmacy, establish a partnership with a pharmacy provider who can perform timely MedsCheck at home. The pharmacist will: Create a complete and accurate Best Possible Medication History (BPMH) *(See Toolbox: Best Possible Medication History Tool) that:* • Includes all prescription and non-prescription medications (including herbs and supplements) the client is taking including the name, dose, route and frequency • Involves a systematic interview with the client and/or their caregiver Review at least one additional source of the client's medication information. Compare the BPMH against the label instructions and medications list to identify any differences with what is ordered/recorded (medication reconciliation) Resolve all discrepancies and medication-related problems with the primary care physician. *See Toolbox: The Medication Reconciliation Process in Home Care Summary* Provide an up to date medication list to the family and to CCAC. Provide a care plan if medication issues require follow-up once admitted to LTC. CCAC shares the documents with the admitting LTC home. This facilitates the admission BPMH and MedRec.	• MedsCheck at Home [http://www.health.gov.on.ca/en/pro/programs/drugs/medscheck/docs/home.pdf] funded by the ministry (provides one annual home visit) • Medications in a Long Term Care Home - what you need to know [https://www.opatoday.com/Media/Default/OPA%20Bulletin%20Docs/PS-401%20Medications%20in%20a%20Long%20Term%20Care%20Home%20-%20What%20You%20Need%20to%20Know-1.pdf], Ontario Pharmacists' Association and Central CCAC • Best Possible Medication History [http://www.ocpinfo.com/practice-education/practice-tools/articles/medication-history-guidelines-medication-reconciliation/], Ontario College of Physicians, March 2007 • Conducting a Best Possible Medication History and Resolving Medication Discrepancies in the Community [https://www.ismp-canada.org/download/Conducting_a_Best_Possible_Medication_History_and_Resolving_Medication_Discrepancies_in_the_Community_oct09.pdf]

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Type of Evidence: (Low)*

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Comprehensive medication review by a pharmacist

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
Comprehensive medication review by a pharmacist **Relevant Indicators:** i7, i12, i17 *We have suggested the types of indicators you may use to measure the impact of each best practice. Indicator numbers refer to the indicators under the Measurement tab.*	A **client-centric comprehensive medication review (CMR)** identifies actual and potential medication-related problems. Review can be done by the client's primary care physician, nurse practitioner or a pharmacist (certified geriatric pharmacist should be considered for clients > 65 years) Define **which clients should have CMR** *refer to Best Practice – "Use screening to assess and mitigate the risk of an adverse drug event"* **Secure funding** for the pharmacist to perform CMR (evidence indicates that pharmacists performing CMRs has a positive return on investment for the health care system and increased client satisfaction) Develop a **standardized documentation** process that **tracks defined metrics**. *See Toolbox MMSS Database option* Aim to **reduce polypharmacy** Use available assessment tools (AGS Beers, START/STOPP criteria, PIM) to identify and **reduce inappropriate medications** **Work collaboratively** with the primary care provider to initiate **de-prescribing, simplification, or to reduce adverse drug events** **Collaborate with the home care team** (e.g., rounds, shared database) to discuss medication-related issues and a **medication care plan** for follow-up. Access to a geriatrician should be available, if needed.	• The Role of a Pharmacist on the Home Health Care Team [http://www.nursingcenter.com/lnc/pdf?AID=1503175&an=00004045-201302000-00006&Journal_ID=54023&Issue_ID=1503115], Home Health Care Nurse, February 2013 • What a Senior Care Pharmacist can do for you [http://www.cscpharm.com/what-a-senior-care-pharmacist-can-do-for-you.html], Canadian Society of Consultant Pharmacists • Medication Management Support Services (MMSS) [http://healthcareathome.ca/central/en/Getting-care/Getting-Care-in-Community/medication-management-support-services] *Central Community Care Access Centre* • MMSS Database [http://www.e-healthconference.com/temp/20137477036/EHealth_MMSS_27MAY2013_FINAL.pptx], *Central CCAC, 2013* • STARTing and STOPPing Medications in the Elderly [http://www.ngna.org/_resources/documentation/chapter/carolina_mountain/STARTandSTOPP.pdf] Pharmacist's Letter, 2011 • Integrating Pharmacy Services in Health Links to Improve the Care of Patients with Complex Needs [https://www.opatoday.com/Media/Default/Health%20Links/Pharmacy%20and%20Health%20Links%20-%20Primer%20%28Formatted%29.pdf], Ontario Pharmacists Association, 2014

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Comprehensive medication review by a pharmacist

Type of Evidence: **(Expert Opinion)***

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Descriptive

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Deliver medication adherence strategies

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
Deliver medication adherence strategies	Studies that examined medication-related emergency department visits illustrate that non-adherence is a problem with home care clients. Educate staff and providers to **identify clients that are non-adherent** with their medications (e.g., unfinished vials, compliance packs without bubbles popped out, old dating on "routine" medication, open admittance) and refer them for assessment. Refer to a nurse or pharmacist to increase adherence with their medications using these strategies: • Identify factors or barriers that affect medication adherence and if modifiable, try to resolve them • Engage and communicate with the client and/or caregiver to customize the medication plan • Simplify medication regimens • Use of reminder strategies (e.g., cueing strategies such as alarm use, the location of medications and written notes on doors) • Use phone follow-up • Educate the client/caregiver and repeat client medication education at future home care visits while incorporating "teach back" strategies • Use of motivational interviews can help adherence in some clients (e.g., cardiac, schizophrenia, outpatient) • Implement multifaceted programs (education, medication schedules, simplification, motivational interviewing) that address an array of barriers • Identify if client would benefit from a weekly compliance package or medication dispensing machine. Coordinate with their community pharmacy • Support the needs of caregivers, especially if they are overwhelmed by medication management • Advocate for an increase in PSW visits to support the client with medication reminders and administration	• Improving Management of Oral Medications - Best Practice Intervention Package [http://www.partnersinhc.info/wp-content/uploads/2011/01/FINAL_MMBPIP042710.pdf], Home Health Quality Improvement, 2010 • Always use teach back toolkit [http://www.teachbacktraining.org/] • CHAMP - Medication management guidelines [http://www.champ-program.org/static/CHAMP-Medication%20Management.pdf], Visiting Nurse Service of New York, 2009 • Medication Adherence - Improving Health Outcomes [http://c.ymcdn.com/sites/www.acpm.org/resource/resmgr/timetools-files/adherenceclinicalreference.pdf], American College of Preventative Medicine, 2011 • Facilitated Client Centred Learning [http://rnao.ca/bpg/guidelines/facilitating-client-centred-learning], *Registered Nurses' Association of Ontario Guideline, 2012.*

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Deliver medication adherence strategies

Type of Evidence: (Medium)*

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Engage the client/caregiver to increase success in managing their medications

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
Engage the client/caregiver to increase success in managing their medications	Understand how the client feels about their medications and the perceived benefits. Have open conversations about how they are using and managing the medications. Ask about their medication concerns and problems. Develop a medication plan with their input and approval. Educate as required to help them understand and make informed decisions. **Clients make choices** about their own medications which can lead to adverse events. We need to identify the deviations and problem solve with the client to make it safe. Ensure they understand the risks with their medications. **Engage clients** to ensure an accurate BPMH is taken using The Top 10 Practical Tips (see toolbox) **Ask for demonstrations** (how they use their puffer, fill their pill organizer, give their insulin) Show how to **create and keep an up-to-date medication list** Help them **organize their medications** **Help to dispose of old/expired/discontinued medication** **Create a medication care plan with the client** to resolve the problems they have identified **Offer education** programs and **ongoing support** to caregivers and clients **Empower them to be responsible about their medications** (e.g., check over the counter medications and herbs for drug interactions with their pharmacist before taking them, verify names on the vials before taking them, ask questions if pills look different than before, if unable to get out for lab testing – ask for help)	• Communicating with Older Adults [http://www.agingresources.com/cms/wp-content/uploads/2012/10/GSA_Communicating-with-Older-Adults-low-Final.pdf], The Gerontological Society of America, 2012 • The Top 10 Practical Tips. How to obtain an efficient, comprehensive and accurate Best Possible Medication History [http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Documents/home/Top%2010%20Practical%20Tips%20-%20How%20to%20Obtain%20an%20Efficient%20Comprehensive%20and%20Accurate%20Best%20Possible%20Medication%20History%20(BPMH).pdf], ISMP Canada and Safer Healthcare Now! 2008 • NO TEARs assessment for medication review [http://www.bmj.com/content/329/7463/434] • Knowledge is the best medicine - website or App [http://www.knowledgeisthebestmedicine.org/index.php/en/iphone_app/] • Simple Strategies to Avoid Medication Errors [http://www.aafp.org/fpm/2007/0200/p41.html], Family Practice Management, 2007 • Facilitated Client Centred Learning [http://rnao.ca/bpg/guidelines/facilitating-client-centred-learning], Registered Nurses' Association of Ontario Guideline, 2012 • Working with Consumers to Prevent Medication Incidents [http://www.ismp-canada.org/download/CMIRPS_Consumer_Reporting_and_Learning_Strategy_V3-2009Dec15.pdf], ISMP Canada, 2009

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Engage the client/caregiver to increase success in managing their medications

Type of Evidence: (Medium)*

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Safe medication culture

Make Change

Evidence-Informed Best Practice	How To Implement	Toolbox
Safe medication culture Active reporting and sharing incidents to enhance client safety Action plans to improve safety **Relevant Indicators:** i13, i14 *We have suggested the types of indicators you may use to measure the impact of each best practice. Indicator numbers refer to the indicators under the Measurement tab.*	Recognize, Respond to and Disclose Adverse Events from CPSI Safety Competencies: Enhancing Client Safety Across the Health Professions. *See Toolbox* Encourage reporting of medication errors and near misses as a way of contributing to client safety (learn from our experiences) Reporting systems for medication errors or near misses are inclusive of all medications: • Administered by nurse, PSW or client/caregiver • Preparation/dispensing error by provider or community pharmacy • Prescriber error by primary care physician or hospital • Consumers and professionals can report medication incidents through ISMP Canada's Canadian Medication Incident Reporting and Prevention System (CMIRPS) Program Engage a pharmacist for the organization's committee that addresses medication management issues Ensure medication incidents are reviewed by a multidisciplinary team Multi-incident analysis can be completed to understand the "bigger picture" of medication errors Analyze systems that are leading to medication errors, make changes and measure outcomes Educate staff and providers on medication errors and near misses at least quarterly	• **CPSI Safety Competencies: Enhancing Patient Safety Across the Health Professions** [http://www.patientsafetyinstitute.ca/English/toolsResources/safetyCompetencies/Documents/Safety%20Competencies.pdf] • **Canadian Medication Incident Reporting and Prevention System (CMIRPS)** [http://www.ismp-canada.org/cmirps/] – for professional or consumer reporting

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Safe medication culture

Type of Evidence: (Low)*

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Measurement

Updated on October 30, 2014

How will we know if a change is an improvement? Measurement is one of the critical steps in a quality improvement (QI) initiative that assesses the impact of your tests of change. **Quality indicators** are used to measure how well something is performing. There are three types of quality indicators used to measure your QI efforts: **outcome** (indicators that capture clinical outcomes and or system performance), **process** (indicators that track the processes that measure whether the system is working as planned), and **balancing** indicators (indicators that ensure that changing one part of the system does not cause new problems in other parts of the system).

	Indicator of Quality Improvement	How to Calculate: numerator ——— denominator	Targets/ Benchmarks
Process	Percentage of staff* trained on MedRec[1] process **Staff includes anyone who performs MedRec (e.g., nurses, care coordinators, pharmacists, pharmacy technicians)* Indicator number: i1	Number of staff* trained on MedRec process Total number of staff	Targets are set by CCACs & individual providers Provincial benchmarks are not available
Transition Processes	Percentage of clients who have had MedRec completed when admitted to home care from hospital Indicator number: i2	Number of clients who had MedRec on admission to home care from hospital Total number of clients admitted from hospital	
	Percentage of clients who have had MedRec completed upon admission to home care from community Indicator number: i3	Number of clients with completed MedRec on admission to home care from community Total number of clients admitted to home care from community	
	Percentage of clients who have had a MedsCheck[2] or MedRec completed upon transfer to long-term care Indicator number: i4	Number of clients with completed MedsCheck or MedRec on transfer to long-term care Total number of clients transferred into long-term care	
	Percentage of clients who have had a MRA[3] completed upon in-take Indicator number: i5	Number of clients with a completed MRA Total number of intake clients	
Clinical Processes	Percentage of MRAs that lead to a pharmacist CMR[4]/ MedsCheck referral Indicator number: i6	Number of clients who receive a pharmacist CMR triggered by an MRA Total number of clients with completed MRA	
	Percentage of pharmacist consults for a CMR completed Indicator number: i7	Number of CMR referrals completed Total number of CMR referrals requested	
	Percentage of MedsCheck referrals completed Indicator number: i8	Number of MedsCheck referrals completed Total number of MedsCheck referrals requested	
	Percentage of MedRec clients requiring more than one home visit to resolve medication issues Indicator number: i9	Number of MedRec clients who needed more than one home visit to resolve medication issues Total number of MedRec clients	
	Percentage of MedRec clients who received an intervention for proper disposal of expired/discontinued medications Indicator number: i10	Number of MedRec clients who received an intervention for proper disposal of expired/discontinued medications Total number of MedRec clients	
	Percentage of discrepancies resolved through MedRec Indicator number: i11	Number of resolved discrepancies Total number of identified discrepancies	
	Percentage of MRPs[5] resolved Indicator number: i12	Number of resolved MRPs Total number of identified MRPs	
Risk Mitigation Processes	Percentage of medication incidents or near misses reported which stem from client's medication self-administration Indicator number: i13	Number of medication incidents or near misses identified and reported by providers which stem from client's medication self-administration Total number of medication incidents reported	
	Percentage of medication incidents or near misses reported which stem from nurse and PSW[6] administered medications Indicator number: i14	Number of medication incidents or near misses reported which stem from nurse and PSW administered medications Total number of medication incidents reported	
Client Outcomes	Percentage of Adverse Drug Events that caused a visit to the emergency department Indicator number: i15	Number of adverse drug events that caused a visit to the emergency department Total adverse drug events reported	
	Percentage of clients with at least one discrepancy Indicator number: i16	Number of clients with at least one discrepancy Total number of clients who received MedRec	
	Percentage of clients with at least one MRP identified Indicator number: i17	Number of clients with at least one MRP identified Number of clients who received MedRec	

	Indicator of Quality Improvement	How to Calculate: numerator ——————— denominator	Targets/ Benchmarks
	Percentage of clients who fell that have had a medication review Indicator number: i18	Number of clients who fell that have had a medication review ——————— Total number of clients who fell	
	Percentage of clients who are taking psychotropic medications that fell Indicator number: i19	Number of clients who are taking psychotropic medications that fell ——————— Total number of clients taking psychotropic medications	
	Percentage of clients that reported they were involved in developing their care plan Indicator number: i20	Number of clients who reported being involved in developing their care plan ——————— Total number of clients responding to question	
	Percentage of clients who reported that they did not take medication as directed Indicator number: i21	Number of clients who reported they did not take medication as directed ——————— Total number of clients responding to question	
	Percentage of clients that reported they manage their medications better after an intervention (i.e., MedRec, MedsCheck, MRA, CMR) Indicator number: i22	Number of clients who reported they manage their medications better after an intervention ——————— Total number of clients responding to question	

[1] *MedRec - also known as medication reconciliation, is a systematic process that involves taking a best possible medication history, noting discrepancies and getting them resolved (usually with the physician)-thus leading to an accurate medication list*

[2] *MedsCheck is a ministry funded program where the community pharmacist reviews the patient's medication for understanding and proper use and provides them with an up to date medication list.*

[3] *MRA = Medication Risk Assessment*

[4] *CMR = Comprehensive Medication Review*

[5] *MRP = Medication Related Problems*

[6] *PSW = Personal Support Worker*

Tools & Resources

Updated on October 30, 2014

Tools

Tools to optimize medication management in the home

Safe Medication Handling

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- Fentanyl patch return program [http://www.pcchu.ca/wp-content/uploads/2013/04/Fentanyl-Patch-Return-Program-FAQ.pdf] Peterborough County-City Health Unit, 2013
- Keeping Families Safe Around Medicines [http://issuu.com/safekids/docs/medicine_safety_study_2014/1?e=4874392/7072891] SafeKids.org, March 2014
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Nurses as team players in home medication management

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- Knowledge is the best medicine - website or App [http://www.knowledgeisthebestmedicine.org/index.php/en/iphone_app/], *for keeping up to date medication list and health records*
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Background

Updated on October 30, 2014

"Right now we spend a lot of time trying to diagnose what is wrong with the patient, yet often miss the fact that there is a medication-related problem. This means that patients often go home still on a medication which may be causing harm."

Dr. Corinne Hohl, Associate Professor, Faculty of Emergency Medicine – University of British Columbia

The material for Medications Management was developed in collaboration with Institute for Safe Medication Practices Canada, led by Lisa Sever.

Issue:

Medication management strives to ensure that each client's medications are assessed as appropriate, effective for the specific medical condition, safe considering all of the client's other conditions and medications, and that the client is able to take the medication as intended. In a home care setting, doctors, nurses, pharmacists, personal support workers, family caregivers, and clients all work together to achieve effective medication management.[1]

Components of a medication management protocol include[1]:

- Assessment of a client's medication-related needs
- Identification of medication-related problems
- Development of a personalized care plan for each client
- Follow-up by providers to evaluate client health outcomes

Adverse drug events are costly to the health care system, requiring greater use of health services.[2] People are admitted to emergency departments because of adverse drug events related to side effects, non-adherence, and wrong or suboptimal drug therapy. In 2007, the total measured costs of adverse drug event related emergency department visits and subsequent hospitalizations in seniors was estimated to cost $13.6 million in Ontario. In addition, it was found that patients with severe adverse drug reactions had emergency department costs that were nearly three times more than patients with mild reactions.[3]

More than half of home care clients in Ontario in 2012-2013 were referred from hospital.[4] Hospital to home transition is a particularly problematic area for medications, with studies showing discrepant medication regimens in 41% to 95% of clients once home.[5-7]

Decisions about medications are often made by clients and their caregivers that may put the client's health at risk.[8] The average age of long-stay home care clients in Ontario in 2013-14 was 80 years and the top three disease states among these clients are hypertension (61%), arthritis (52%) and diabetes (27%).[4] These diseases are typically associated with a heavy drug burden of medications (e.g. insulin, oral hypoglycemic, opioids).[9,10] Psychotropic drugs which affect mental activity, behaviour, or perception are known to cause falls. The data shows that 86% of clients are taking *at least* one psychotropic drug.[4,11] Polypharmacy (i.e., taking five or more medications) has been identified as one of the strongest factors associated with adverse events – increasing the odds of experiencing an adverse event by 20%.[8]

The good news is accreditation bodies such as Accreditation Canada are recognizing the importance of medication safety across the home care continuum. Accreditation Canada has updated their standards Medication Management Standards for Community Based Organizations [http://www.accreditation.ca/medication-management-standards].[12] Once home, medications need to be continually monitored to prevent adverse events.

Call to Action:

Recent reviews have illustrated the significance of medication use in the home care setting.[13-15] Canadian Patient Safety Institute released Safety at Home: A Pan-Canadian Home Care Safety Study [http://www.patientsafetyinstitute.ca/English/research/commissionedResearch/SafetyatHome/Pages/default.aspx], which showed medication related incidents resulting in an emergency department visit or hospitalization was one of the most frequent adverse events.

Safe and standardized procedures for medication handling (i.e., prescribing, procuring, dispensing, administering, disposing, storing and monitoring) in the home care environment is critical. Clients also need medication regimens that are safe, effective and manageable. Implementing evidence-based practice will help clients use medications safely at home. Identifying clients at risk from their medication use or lack thereof will ensure they are not at risk for medication safety issues. Nurses, personal support workers, and family caregivers play important roles in identifying medication safety issues and preventing adverse events.

Pharmacists play a pivotal role in preventing and resolving medication related problems. Four of the fourteen Community Care Access Centres (CCACs) in Ontario have staff or contracted pharmacists as part of their home visiting teams to improve client safety.[16] Community pharmacists can perform a MedsCheck at home, visit annually to review all prescription and non-prescription medications, help remove expired and discontinued medications, and monitor medication taking behaviours.[17] There is also some emerging evidence that comprehensive medication reviews performed by home care pharmacists can improve safety (e.g., reduce falls).[18,19] To ease the transition home from the hospital, the Ministry of Health and Long-Term Care has funded the Rapid Response Nursing program across the province to perform medication reconciliation within 24-hours of discharge from hospital and resolve medication discrepancies in a timely manner.[20]

Standardized medication management programs for home care clients are in their infancy in Ontario – and even across Canada. Some practice areas are well defined by evidence such as a collaborative team approach, medication reconciliation, comprehensive medication review by pharmacists, and nursing medication administration standards. Other areas that need further development, include:

- Understanding and supporting the needs of clients and caregivers
- Managing the medication list
- Identifying clients at risk using a standardized assessment tool
- Incorporating pharmacists into the home care funding model
- Improving links between primary care and home care
- Educating home care providers and family caregivers who administer medications
- Ensuring all medication issues are communicated among clients, caregivers, and all home care and health care providers

This quality improvement resource provides evidence-based best practices for improving medication management in home care settings and can lead you on a path toward providing home care clients with the best possible care, especially where standard medications management protocols are not available or applied.

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