



Safer Healthcare Now!
Medication Reconciliation in Homecare Pilot Project

FINAL REPORT

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PROJECT SUMMARY

The literature and current evidence identifies that adverse drug events are occurring at an alarming rate across all sectors of health care. At the core of this problem is miscommunication and fragmented care.¹ To address this, medication reconciliation (Med Rec) is being implemented in acute and long term care facilities across Canada.

It is recognized that to achieve coordinated care and enhance patient safety for all Canadians, action must be taken to spread the practice of Medication Reconciliation into the home care sector.

Through the Safer Healthcare Now! Western Node Medication Reconciliation Collaborative and subsequent investigation in the form of a background report, it has been determined that distinct challenges exist when conducting medication reconciliation in home care. However, these challenges are not well understood or defined.

The Canadian Patient Safety Institute (CPSI), Safer Healthcare Now! (SHN!), Victorian Order of Nurses (VON) Canada and the Institute for Safe Medication Practice (ISMP) Canada partnered from 2008 - 2010 to bring Medication Reconciliation to the home care sector. The method for doing this was a pan – national Medication Reconciliation in Home Care Pilot Project consisting of 15 home care teams from multiple health care organizations across Canada. Pilot teams literally spanned the political, geographical and demographic landscape of health care delivery across this country – from Vancouver Island to Newfoundland, adding a rich depth of information to the results of this project.

The overall goal of the pilot project was to develop a framework and tools that assist homecare clinicians to integrate a formal medication reconciliation process into their care delivery. Throughout the project, Medication Reconciliation strategies that address the unique challenges of the home care delivery setting were explored, developed and tested for implementation.

In addition to meeting regularly to discuss progress, issues and findings, in April 2009 representatives from the pilot teams and the planning committee came together for a two day face to face session in Ontario. During this time, the teams engaged in discussions to share, learn, and strategize for the future. The result of this session was an agreement on the overall Medication Reconciliation Process in home care, and related steps, tools and approach.

Pilot Objectives:

1. Development of a broad definition for Medication Reconciliation that can be applied in the home care setting.
2. Development and testing of tools, guides, measures and processes which can be applied to Medication Reconciliation in the homecare setting.
3. Identify and share challenges and lessons learned in the application of medication reconciliation in home care.

¹ Institute of Medicine Report, 2007

4. Develop a “Getting Started Package” to be made available to all Canadian home care agencies to utilize in the implementation of medication reconciliation.

Four core measures were established by the Pilot Project Steering Committee and data on the core measures was collected by the 15 teams from across the country in order to identify areas for improvement, trends, and validate the need for Medication Reconciliation in home care.

Core Measures:

1. Percentage of eligible clients with a best possible medication history (BPMH) completed;
2. Time required to complete the BPMH;
3. Percentage of eligible clients with at least one discrepancy that required clarification; and
4. Characterization of discrepancies

By completion of the project, the pilot sample population was 611 clients from across the nation that met the established criteria. Data demonstrated that 45.2% of these clients had at least one discrepancy that requires investigation.

Practical factors unique to the homecare sector emerged during this pilot, along with ideas for effective strategies to manage them. The complex and varied home service delivery environments across Canada are provided a diverse set of challenges. Of primary importance is the need to address interagency, organizational and interdisciplinary communication in a manner that provides meaningful and accurate medication information for clients and their families. Additionally, the challenges in closing the Medication Reconciliation ‘loop’ in the home care sector continues to be a key challenge for agencies and providers, due to the lack of formal linkages between home care services and primary health care in some provinces.

Positive feedback on the medication reconciliation process and tools was received from both clinicians and clients. For examples, Lindsay Bellavance, R.N. from VON Canada Perth-Huron shared a client experience:

“I was seeing a client twice daily with severe orthostatic hypotension in which VON was to monitor her blood pressure and provide nursing support. The client was finding it difficult to cope and unable to live her life normally due to extreme dizzy spells when standing/walking.

Through medication reconciliation, I realized that she was on multiple blood pressure medications that required reassessment. Her family doctor was notified and there was a change made to her medication regime. Her blood pressure stabilized and she no longer requires any nursing visits.”

Based on the pilot project learnings, a formal process and framework for Medication Reconciliation in Home Care was developed, a SHN Community of Practice established, and a comprehensive yet user friendly “Getting Started Kit” published. All deliverables as set out in the contract between VON Canada and the Canadian Patient Safety Institute were fully met by the end of the project in October 2010.

Pilot Project Leads:

Victorian Order of Nurses (VON) Canada
 Institute of Safe Medication Practices (ISMP) Canada

Pilot Project Steering Committee Members:

Catherine Butler – VON Canada (Project Co-Lead)
 Marg Colquhoun – ISMP Canada (Project Co-Lead)
 Debbie Conrad – VON Canada (Project Coordinator)
 Brenda Carthy – ISMP Canada
 Alice Watt – ISMP Canada
 Olavo Fernandez – ISMP Canada
 Theresa Fillatre – SHN Atlantic Node
 Tanis Rollefstaad – SHN Western Node
 Doris Doidge – QHN Ontario
 Ann MacLaurin – SHN
 Virginia Flintoft – University of Toronto

Pilot Project Teams:

- Central Health – Gander, Newfoundland
- PEI Department of Health – Charlottetown, PEI
- VON Canada Cape Breton Metro – Sydney, NS
- VON Canada Lunenburg – Lunenburg, NS
- Extra Mural Program Southeast Regional Health Authority – Moncton, NB
- VHA Home Health Care – Toronto, ON
- St. Elizabeth Health Care – Markham, ON
- CanCare Health Services – Toronto, ON
- Para Med Home Health Care – London, ON
- VON Canada Perth Huron – Stratford, ON
- VON Canada Thunder Bay – Thunder Bay, ON
- VON Canada Middlesex Elgin – London, ON
- Capital Health Region – Edmonton, AB (now Alberta Health Services)
- Interior Health Region – Kelowna, BC
- Vancouver Coastal Health – Squamish, BC

INTRODUCTION

In addition to presenting the relevant data from the Pilot Project, this report will discuss the challenges clinicians face along the medication reconciliation process in the home care setting as identified by the pilot participants (supported by current research and the literature noted in the background paper), and the unique factors that further complicate them. Before medication reconciliation can be considered in the home care setting, specific unique factors within this sector need to be acknowledged. At first glance, the challenges of medication reconciliation in home care may not seem any different than those in the acute care and long term care environments. However, as the Medication Reconciliation in Home Care Pilot Project discovered, factors unique to home care can add a layer of complexity to these challenges.

Strategies identified and tested by pilot teams are presented with the purpose of information sharing and as possible approaches to management of the challenges that home care clinicians face on a daily basis. Further, successes and lessons learned have been identified and applied throughout the pilot when testing and developing new processes, tools and guides for medication reconciliation in the home care setting. This approach is very much in alignment with the principles of Quality Improvement embraced by the Safer Healthcare Now! Campaign and the pilot project participants received education and ongoing support from the Safer Healthcare Now! Regional node leads in quality improvement methodologies and tools (e.g. the evidence based PDSA cycle was foundational to the ongoing testing undertaken during the pilot).

Importantly, a viable approach to medication reconciliation in the home care sector is presented in addition to strategies and tools to support the implementation of this process, taking into account the successes and lessons learned from pilot project participants.

As identified earlier, pilot project teams were located from the Vancouver Health Authority to the Central Health district of Newfoundland. The vast geographic spread between pilot teams might have proven to be a major barrier to the pilot. However, strategic planning by the Pilot Project Steering Committee and the commitment, openness, and willingness to share and learn by all members of each pilot team reduced any geographic barriers that may have existed and is instrumental in the success for this pilot.

Pilot team members along with the pilot project planning group, shared information via monthly teleconferences, webinars, the SHN! Communities of Practice, team status reports, discussions via teleconference and email, Pilot Project Coordinator site visits and the face to face session in April of 2009. The following report is based on information gathered from these points of sharing and learning over the course of the pilot.

FACTORS THAT IMPACT MEDICATION RECONCILIATION IN HOME CARE

There are unique factors that need to be taken into consideration when caring for clients in their home. These factors vary from one home care agency to another. Resources, funding, and diversity in client base are unique to every home care agency.

Client Level of Self Care

The approach to medication reconciliation in home care is client specific. The client's level of self care (ability to care for one's self and health needs independently) must be taken into consideration when applying the process. Who, how, and when to pass the responsibility of the process on, depends on how dependent the client is on the clinician, agency or another caregiver for care. For example, those clients who are deemed competent and independent regarding their medication regimen may complete the medication reconciliation process directly with a physician or pharmacist. The client who requires more support may need a homecare clinician to stay involved to clarify the medication regimen in terms/language the client will understand. This factor will impact the length of time the clinician spends applying the medication reconciliation process, as well as what member of the client's circle of care to hand off the process to.

Client Circle of Care

The client's circle of care is a key factor in communication in the medication reconciliation process. There are often multiple home care agencies, pharmacists, primary care practitioners such as physicians and nurse practitioners, formal and informal caregivers involved in the client's care.

Within the home care setting, the client's circle of care may change frequently putting the client at risk when care is transferred from one caregiver to another. With clients admitted to home care from acute care, or for shorter durations (known as short stay clients), quite often the clinician/agency initiating the medication reconciliation process will not be within the circle of care when the time comes for closing the loop on the process. It is key for the clinician to identify the client circle of care before initiating the medication reconciliation process so as to ensure the best possible communication.

Multiple Service Delivery Settings & Environments

In home care, the client's actual place of residence (this can be a private residence, an apartment in an alternative care complex, home of a relative, etc) is where service is delivered. Therefore the service delivery setting is where the client is. For each client there is a unique service delivery setting. What is often overlooked in this sector is that first and foremost the clinician is a guest in the client's home. As a result, the clinician has limited control over the service delivery environment. In addition, resources available differ from one delivery setting to another. Before the clinician can engage in medication reconciliation s/he needs to identify

resources available to support the process. For example, the client may not have a telephone and the clinician may not carry a cell phone. Therefore once the BPMH is completed it may need to be hand delivered by the client or family member to the primary physician or nurse practitioner, or faxed by the clinician when able. Due to this, there may be a delay in reconciling of discrepancies of which the clinician has limited control.

Health Literacy Levels

The Manitoba Institute for Patient Safety defines health literacy as “the ability to read, understand and effectively use basic healthcare information and instructions.”² Low literacy alone will put clients at risk for adverse events related to medications regardless of the health care setting. The institute further states that “80% of Manitobans over 65 have low health literacy.” A high percentage of home care clients fall into this demographic category. Compounding this factor further is that often clients live alone with limited formal or informal support systems to assist them with their medication regimen. Dementia and sensory impairment also impact health literacy levels. The use of the Medication Risk Assessment Tool (MedRAT) may be able to help identify clients with these issues and target them for actions to increase safety related to medications in their homes.

Chronic Disease / Co-morbidity

It is known that one in five Canadians over 40 has 3 or more chronic diseases. One in three Canadians over 60 have three or more, with 70% of all health system costs being related to chronic disease.³ A solid majority of home care clients will fall into one of these two categories. Clients with one or more chronic diseases may often have a more complex medication regimen, which can impact the time intensity required to for a clinician to undertake the medication reconciliation process. However, this factor alone provides importance support for the argument that medication reconciliation is required in the home care sector as these particular clients would be at higher risk for adverse events related to their medication regimen. Many pilot teams recognized the significance of this factor and ensured it was reflected in the pilot teams MedRATs.

Organizational Work flow

An individual organization’s approach to the medication reconciliation process will be impacted by intraorganizational operational work flow. This pilot project recognized that the development of a framework for implementation of medication reconciliation would need to consider the multiple work flows which are agency / organization specific.

Availability of Resources

It was quickly identified during the Pilot Project that resources available to agencies are not standard. It was very apparent during ongoing discussions that home care organizations embedded within or managed directly through provincial Departments of Health or District /

² Manitoba Institute of Patient Safety, www.safetoask.ca , Information for Providers

³ Dorothy M Wile Nursing Leadership Institute (May 2009),Client Centered Care, Toronto Ontario, Canada

Regional Health Authorities tend to have less constraints on the amount of time allotted for client visits and completing supporting documentation; more formal linkages to pharmacists and physicians; and easier access to supports and information than private (for profit and not for profit) organizations do. This reflects the differences in structures and access to resources between the public and private organizations and was an ongoing challenge throughout the pilot project. .

Cultural Environment and Practices

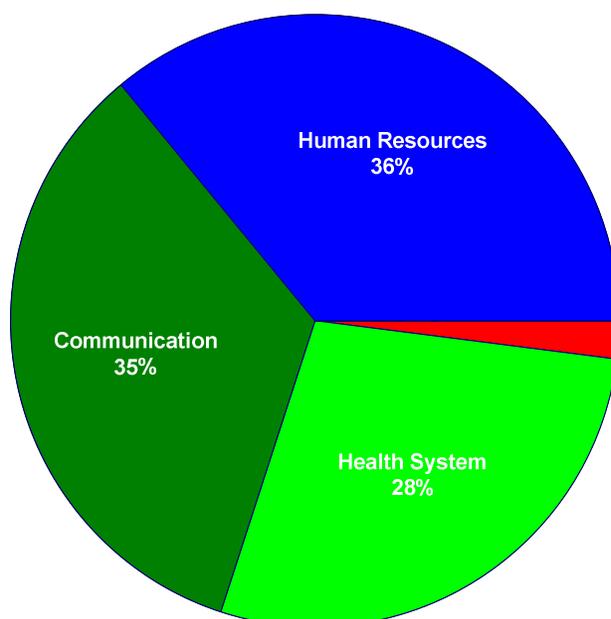
As identified above, home care clinicians are guests in the client's home, and the home is most likely where cultural practices and values are most embedded. It was recognized that language differences and barriers and issues related to cultural understanding are often present in the home care setting. The existence of this factor is not unique to the home care sector – but what makes it more complex is the lack of access to resources immediately available such as language translators and cultural interpreters. Even when an informal caregiver who speaks the client's language of choice is present, it is often difficult to translate medical terminology and thus the risk of incomplete or incorrect information is a risk. Due to this, communication is often a challenge.

CHALLENGES TO THE MEDICATION RECONCILIATION PROCESS IN HOME CARE

In addition to the factors unique to the home care sector that can make medication reconciliation more complex, the pilot project also identified several challenges to successfully undertaking the Medication Reconciliation process in home care. Though these challenges are not necessarily unique to the home care sector alone, they nonetheless presented significant barriers during the project. Due to this, the unique factors discussed in the previous section need to be taken into consideration when developing strategies to address these challenges in the home care setting. Challenges were identified and ranked by participants during the pilot face to face session on April 27 & 28, 2009, and potential management strategies were suggested. The top five overall challenges determined by pilot project participants are listed below:⁴

1. Work load issues /change fatigue.
2. Closing the medication reconciliation process loop.
3. Multiple providers, specialists, physicians, pharmacists involved in the client's care; the most responsible physician or primary care practitioner is not always easily identified.
4. Clinician engagement level.
5. Communication transfer between care settings.

These challenges were categorized into three distinct themes:



Categorization of Identified Challenges to the Process

⁴ Conrad, Deborah A SHN! Medication Reconciliation in Home Care Pilot Project Face to Face Session Summary May 2009

COMMUNICATION:

Listed below are the top five identified challenges under the category of communication in order of ranking and some potential solutions and strategies suggested by Pilot Team Participants :

1. Closing the Medication Reconciliation Process Loop

Ensuring the client receives an up to date reconciled medication list in a language they understand can be somewhat challenging in the home care setting. Frequent changes in the circle of client care and the multiple service delivery environmental factors increases the level of challenges related to communication. The primary prescriber, pharmacist, clinician and client can be in different locations. Once the primary physician or nurse practitioner is identified, engagement and ‘buy in’ needs to be secured in order to ensure the success of the process. Definite strategies to ensure clear communication between those within the circle of care need to be in place in order to ensure swift reconciliation of identified discrepancies and delivery back to the client in a language they understand.

Suggested strategies include:

- Identify of who is in the client’s circle of care at that current time.
- Develop of approaches to decision making on whom and when to ‘hand off’ the process.
- A standard cover letter that can be used in the ‘hand off’ to various members of the client’s circle of care (e.g. physician, pharmacist, client)
- Educate clinicians on the scope of practice for pharmacists & services they offer
- Establish a standard way of communicating such as the utilization of standardized, user friendly tools and processes. Keep all communication tools as simple and concise as possible.
- Investigate payment options (e.g. MSB code) in local provinces for remuneration for physician communication and where possible, identify this information in standard cover letters. Identify a billing code for physicians if applicable.
- Educate the client about the need for an accurate reconciled medication record to ensure their health and well being. Develop information sheets to give to clients when the process is handed off to them to manage directly with their primary prescriber. Ensure it is in a language that facilitates understanding at the client level.

2. General Communication

Ongoing discussions with clinicians in the home care environment reveal that communication across the continuum of care is a key challenge in managing client care at home. This challenge may indeed be a symptom of larger issues within Canadian health system. Strategies have been discussed and some implemented with varying degrees of success throughout the pilot.

Suggested strategies include:

- Develop a clear, standard approach to communication – both internal and external to the organization

- Communicate in a language and in a manner the recipient will understand.
- Identify the most effective way of communication for a client – and it may not be the easiest way!
- Establish standard organizational criteria for BPMH review and update
- Ensure the process stays centered on the client and is outcome focused
- Educate clients regarding personal medication information and their role in helping to prevent adverse medication events
- Communicate pilot results with stakeholders such as provincial Ministries of Health, District / Regional Health Authorities, funding agencies, community partners, etc. to build awareness of the importance of medication reconciliation in home care and the challenges
- Incorporate / integrate medication reconciliation into the current assessment process, eliminating duplication of documentation.

3. **Triggers for Action**

Medication reconciliation in home care is a shared responsibility amongst all clinical providers. It is important for a clinician to know their scope of practice and that of other's on the care team and within the client's circle of care in order to initiate action. It is also important for the clinician to know when, how and to whom to 'hand off' the process in order to secure success.

Suggested strategies include:

- Identify clearly the client's circle of care before the medication reconciliation process is initiated.
- Educate clinicians points of information and process transfer
- Develop a standard approach to the medication reconciliation process within each organization.
- Develop a screener/risk assessment tool that can be used to identify risk points at any time during care delivery.

4. **Quality / Quantity of Information from Referring Source**

Home care referrals often do not provide the information needed by the clinician in the home to accurately identify and initiate reconciliation of discrepancies. In order to manage the process successfully, the clinician may need to identify the client circle of care and take the time to obtain the information needed from other members. This can be frustrating and very time consuming for the clinician. On occasion it may be appropriate to push these referrals back to the source and request more information. However, many pilot team participants identified that a proactive approach may be a better solution:

Suggested strategies include:

- Clearly and consistently inform referring sources what is needed to provide safe care including medication reconciliation

- Address the issue at formal linkage points such as Case Managers, Care Coordinators, etc.
- Clarify with the referring source their standard for initial information transfer.
- Send the referral back to the source if the information is insufficient enough to compromise safe client care

5. Understanding Accreditation Canada Standards Related to Medication Reconciliation

Organizations need to understand the concept of medication reconciliation in order to understand the Accreditation Canada standards and Required Organizational Practices related to Medication Reconciliation. It was widely recognized by pilot team participants that educating organizational staff on the process for medication reconciliation in home care and standards set by Accreditation Canada is essential in order to develop agency specific practices.

Suggested strategies include:

- Provide innovative ways to engage in education sessions such as webinars, course based learning, or teleconferences / in site visits. Use Accreditation Canada education and learning resources where possible
- Access available sector specific learning resources such as the SHN Communities of Practice to support the development of learning tools
- Collaborate with other home care agencies / organizations on learning

HUMAN RESOURCES

The top challenges categorized under the theme of human resources are closely related as they all impact the work life of the clinician.

In light of these challenges, agencies need to investigate accessible community resources to support clinicians in the implementation of Medication Reconciliation in home care. Education of staff on these resources as well as the process of medication reconciliation itself will increase efficiency of the process and increase the rate of success.

Listed below are the top identified challenges under the category of Human Resources in order of ranking and some suggested strategies for addressing them:

1. Work Load/Change Fatigue

As in other sectors, chronic human resource shortages, coupled with increased workload and increasing change fatigue create very real barriers for clinician engagement. Therefore, as identified in the pilot project, it is not surprising that clinicians may view the medication reconciliation process as an addition to an already overwhelming workload and yet another change to adapt to.

Suggested strategies include:

- Develop effective, efficient (user friendly) processes and tools to decrease time intensity
- Ensure adequate clinician education on the medication reconciliation process and organization specific tools and standards so that the information and expectations are clear
- Ensure strong, accessible leadership and clinical support for clinicians
- Communicate and put in processes for effective sharing of responsibility of client care within the circle of care
- Research and access available community resources to assist with the workload among the circle of care.

2. **Clinician Engagement**

Engaging clinicians so that they feel invested in the success of medication reconciliation proved to be a challenge for most pilot project teams. This is likely due to multiple factors, including the aforementioned stress associated with high workloads and change fatigue. However, it can also be due to a clinician's lack of understanding of the process or the significance to client safety outcomes, or to a perceived lack of support or resources that impact the potential success of the med rec process.

Suggested strategies include:

- Develop, publish and share testimonials of successful experiences with medication reconciliation through a variety of means such as sharing of experiences face-to-face during staff meetings, newsletters, team meetings, etc.
- Clearly identify and articulate the benefit for clinicians - what is in it for them?
- Develop and communicate a systemic way of obtaining accurate information.
- Build on existing quality processes by formalizing current tools and practices
- Share the results of the pilot project with the clinicians who will be engaging in the process
- Provide adequate education and ongoing support
- Ensure that the senior leaders in the organization are committed to the medication reconciliation process; understand it; and visibly support it amongst the staff.

3. **Human Resources / Time Constraints**

It should come as no surprise that there is a shortage of health human resources in Canada. The home care sector struggles with the same challenges in this regard as others, and may actually have more complex challenges related to pay inequity between the home care and acute care sectors in some provinces. The volume of referrals and available staffing within an agency may also impact the target population for medication reconciliation. The reality may be there is no staff or time to do medication reconciliation on all clients admitted to the agency. These factors, combined with an increasing focus on efficiency measures in health care, provided some interesting ongoing tests for pilot project teams related to time constraints for visits and the impact on medication reconciliation success.

Suggested strategies include:

- As an organization, clarify which processes and tools are required for medication reconciliation to be successful with your clients, and standardize across the agency
- Provide interdisciplinary staff education in order to build capacity amongst various professional groups – medication reconciliation is not ‘owned’ by one profession – it is a shared responsibility between nurses, pharmacists, physicians / nurse practitioners, and the client
- Develop and communicate clear strategies to broaden implementation
- Within Ontario, especially for clients admitted for a one time visit, investigate the referral of high risk clients to a community pharmacist who participates in the Med Check program
- Ensure clinicians have the tools to be efficient and effective (e.g. an adequate supply of BPMH forms; contact lists for community physicians, etc)
- Develop, communicate and use a medication risk assessment tool to assist with targeting clients at highest risk for medication adverse events (e.g. >65; admitted from acute care; taking >3 medications; multiple chronic diseases. Focus can initially be on these high risk clients with the ultimate goal being all clients admitted to the agency once medication reconciliation is considered standard practice.
- Clarify and communicate expectations that clinicians are to use the new tools and processes to undertake medication reconciliation.
- To reduce duplication of documentation, consider carbon copying. Strategize on how to control duplication yet ensure the information stays with the client and can be delivered to the most responsible physician for reconciliation. Many clinicians find themselves rewriting medication lists. Not all agencies are computerized and remoteness of service delivery sites may interfere with access to technology. Any decisions and development around documentation tools and guidelines need to be within the documentation policies and reality of the agency and adhere to minimum standards set by governing bodies.

HEALTH SYSTEM

Listed below are the top five identified challenges under the category of Health Care System in order of ranking.

1. Multiple providers

Although all health care sectors are faced with the difficulties in ensuring care continuity, this challenge was identified as being more significant to the homecare sector. The most responsible physician / nurse practitioner is not always easily identified when a client is transferred from an acute care facility to the home care setting. At times, no one physician or primary care provider wants to take responsibility for the client’s overall care. In addition to this the client may be dealing with multiple pharmacies and caregivers in the home. This may be one of the toughest challenges for the home care clinician to deal with. Physician engagement and involvement may be impacted by this as prescribers are not always willing to sign off on medications other prescribers have ordered. However, for these reasons, it is also

the single most important imperative for ensuring that medication reconciliation occurs at certain points along the client's continuum of care.

Suggested strategies include:

- Identify and clarify the client's circle of care upon admission to service.
- Consider implementing a standard approach to communicating with each individual within the client's circle of care.
- Develop a framework and standard approach to managing hand offs and communication between individuals within the client's circle of care to ensure the safety of the client
- Take a proactive approach in working with referring institutions on the information needed on discharge to the community setting
- Educate the client, family and clinicians on the key role of community pharmacies in participating in medication reconciliation
- Encourage and seek standardization of BPMH tools and processes with local stakeholders (e.g. acute care facilities; community pharmacies).
- Collate and test various physician engagement strategies
- Explore and test potential strategies to engage community pharmacists. Look for local retail solutions.

2. **Balance of Challenges in This Category**

The multitude of challenges under the category of "health system" seemed to be the most problematic for the pilot participants. Most agree a high percentage of all identified challenges by pilot participants may be symptoms of the system fragmentation and lack of service integration that exists within the current Canadian health care system. Though such challenges were beyond the scope of this pilot project to address, they are nonetheless important to note and communicate to broader system stakeholders. There are some potential strategies that may help to decrease the barriers encountered by pilot team members.

Suggested strategies include:

- Define what "client centered" means in your organization and amongst the community partners including accountabilities, actions, and assumptions for connecting all parts of the system in medication reconciliation
- Engage and/or consult with district health authorities, government departments and / or individual acute care facilities on implementation strategies to promote and lead system level solutions
- Promote access to an herbal/alternative product data base across the continuum
- Clarify provincial scopes of practice of pharmacists, nurses, and nurse practitioners and communicate with community partners
- Build communication and partnership strategies between home care organizations and local pharmacy programs and services for medication reconciliation in the community (e.g. Med Check Program in Ontario)
- Engage partners in chronic disease management and primary care renewal strategies

- CPSI should consider hosting a national round table discussion on home care medication reconciliation that involves multiple stakeholders including home care delivery organizations, funding agencies, Ministries of Health, etc.
- SHN should continue to work with regional node structure to maximize key provincial links to strengthen leadership and strategy in long term sharing & learning.

OTHER

Client centered care is defined by Registered Nurses Association of Ontario as: “an approach in which clients are viewed as whole; it is not merely about delivering services where the client is located. Client centered care involves advocacy, empowerment, and respecting the client’s autonomy, voice, self-determination, and participation in decision-making.”⁵ All five of the challenges identified in this category are related to client centered care. Although they only represent 2% of the total challenges identified throughout the pilot project, they had the most dramatic impact on the participants.

In order to effectively manage the challenges discussed the overarching goal must be the development of a medication reconciliation process that is firmly centered on the client. The aim of medication reconciliation is to reduce adverse events related to medications in the home care environment. Clinicians in this pilot project indicated that it is increasingly difficult to maintain a client centered approach when some of the identified challenges become overwhelming in their everyday work. Work load issues are sited as the number one challenge that impact client centered care. Therefore management of these challenges will support the clinician in maintaining a client centered approach to their work.

⁵ Registered Nurses’ Association of Ontario (March 2009) Nursing Best Practice Guidelines Shaping the future of Nursing: Client Centered Care Supplemental ,Toronto Canada

THE CASE FOR MEDICATION RECONCILIATION IN HOME CARE: Evidence from Pilot Project Results

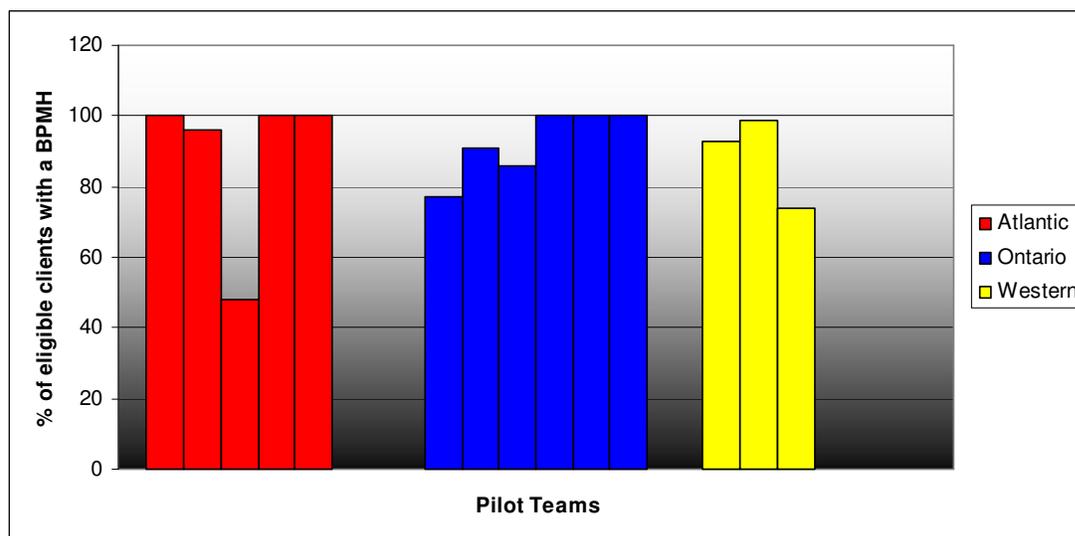
Over the course of the pilot project, participating teams collected and submitted data on the following measures:

1. Percentage of eligible clients with a BPMH completed.
2. Time to complete the BPMH.
3. Percentage of eligible clients who have a BPMH completed with at least one discrepancy that requires clarification.
4. Categorization of discrepancies identified.

Percentage of eligible clients with a BPMH completed:

The Pilot Planning Group defined eligible client as being, “a client recently discharged from an acute care facility. Specifically, this means discharged from an overnight stay in an acute care facility. Excluded will be clients who visit the emergency department and are not formally admitted to the acute care setting.”⁶ Each team was asked to work towards a monthly sample population goal of 5-10 per month with a completed BPMH. A minimum standard of 5 was selected to support credibility of data.

On a national level, 611 clients out of 705 eligible clients had a BPMH completed. The goal for this measure was 95% however the results fell short at 86%. A high percentage of teams consistently met this goal while others did struggle. The graph below indicates the average percentage of each team over the course of the pilot.



Clinicians used a medication risk assessment tool (MedRAT) to identify eligible clients. Once the client was determined to be eligible (within the target population), it was up to the trained

⁶ SHN! Medication Reconciliation in Home Care Pilot Planning Group meeting minutes October 20, 2008

clinician to decide if it was appropriate to select the client and include him / her in the sample population (client with a completed BPMH). Determining factors for selection included but were not limited to the following:

- Volume of referrals
- Population density and acuity
- Additional client eligibility criteria set by the pilot team
- Workload/time
- Client ability/willingness to participate
- Resources available (trained clinicians, time of day of client visit)

The criteria set by the planning group proved to be problematic for some of the teams with a consistently low volume of referrals. As a result, some teams had to relax their criteria for selection to include all clients admitted to the home care agency from an acute care facility. Some of these teams stopped using the MedRat as the referring source became the trigger for eligibility. This contributed to the high number of monthly 100% averages for this measure.

Teams providing service in densely populated communities had an abundance of referrals. The utilization of the MedRat was crucial as a means to identify those clients at high risk as determined by the pilot team membership. These teams did show dips in percentages throughout the pilot.

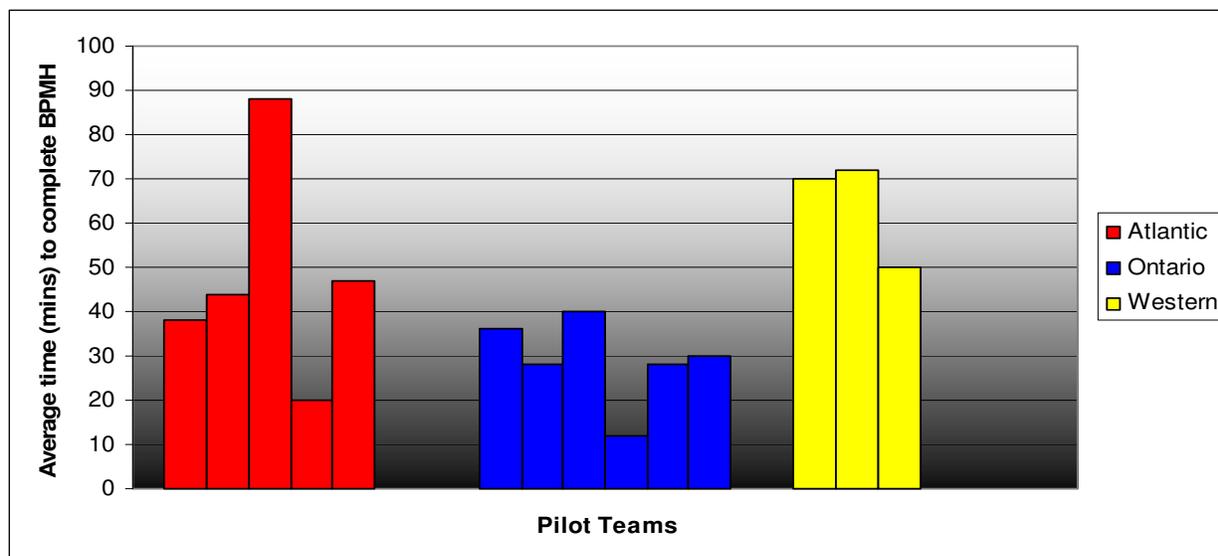
Short stay referrals or referrals for service of one to two visits were seen by some teams as not meeting the criteria even though some of the clients might be viewed as high risk. The agency is within the client circle of care for only one or two visits so the appropriateness of the agency doing the medication reconciliation came into question. Strategies will need to be identified so clients who are have been identified as high risk by the agency are referred to an ongoing member of the client's circle of care.

Time to Complete the BPMH:

The pilot planning group set parameters around this measure. The start time was to commence with the client interview and continue until all sources of information were gathered for comparison and stopped once the BPMH was documented, completed, and ready for submission to the most responsible physician / nurse practitioner for review and reconciliation of any discrepancies identified. This measure excluded the time it takes to deliver the BPMH to the physician and for reconciliation of identified discrepancies. This time is measured in minutes.

Over the course of the pilot, average time in minutes to carry out the BPMH varied quite substantially from one team to another. The range of average time was 12 to 88 minutes with a median of 40 minutes to complete the BPMH. However, it is important to note that as clinicians became more familiar with the process and tools over time, the average time to complete the BPMH decreased.

The graph below demonstrates the average time of each team to complete the BPMH over the course of the pilot:



At the onset of the pilot, a variety of teams struggled with parameters set by the pilot planning group regarding start and stop time. Continued support of the pilot planning group and knowledge of the process provided clarity with the start and stop time for this measure. Several factors have been identified by the pilot participants as impacting the time to complete the BPMH including:

- Interpretation of measurement parameters: Although there are noted differences from team to team, interpretation of parameters within the teams seemed to be consistent. This measure therefore is very team specific and is based on established parameters by the team itself.
- Chronic diseases: Clinicians reported that the presence of one or more chronic diseases impacted the length of time to complete the BPMH. These clients tend to have a complex medication regimen which takes longer to review.
- Client health literacy/reliability of interviewing source: Clinicians determined that in some cases the client's ability to understand their medication regimen may be limited. Therefore, obtaining information through the interview may be more time consuming. If the client is determined not to be reliable, an alternate interview source may need to be obtained.
- Clinician knowledge/training: Team membership varied. Private-for-profit and not-for-profit organizations tended to have membership comprised primarily of nurses. Government and Health Authority agencies more commonly had interdisciplinary teams comprised of pharmacists, social workers, occupational therapists, and physiotherapists along with home care nurses. The data shows that time to complete the BPMH by private agencies with predominately nurse based teams was lower than that of their publicly administered counterparts. The knowledge level of medications varied substantially between the members of interdisciplinary teams. Therefore the length of time to complete the BPMH will ultimately vary. Training on medication reconciliation processes and tools also impacted the time. The data revealed an increase in time when

new clinicians were brought into the pilot team or when new tools or changes to the process were implemented.

- Duplication of documentation: Clinicians are challenged with ensuring that up to date information remains in the client chart yet have the information delivered to the designate for reconciliation. This is a considerable challenge considering the various service delivery environments and the limited access to technology in home care. The intent of the pilot project was to replace an organization's current tools with new tools that were tested for the environment. Some teams reported clinician reluctance to change the tools and process they were using and to exclusively use the new tools. This did result in some duplication that was likely not necessary.
- Lack of information from referring sources: Information provided on referral documentation regarding client medications, was at times of low quality or not existent. The clinician may need to reach out to community pharmacists and physicians to collect information for comparison while undertaking medication reconciliation.

With workload, time, and human resource challenges present, the additional time required to implement medication reconciliation as an agency standard is a valid concern. As the majority of teams did not do a baseline measure with their current processes it was not possible to measure the difference in time between current agency practices and the implementation of the pilot practice. Team members were asked to discuss this issue and give an estimate for the difference in the time. The teams that did respond provided an increase in time from marginal to approximately an additional 20 minutes with the average increase in time between 10 & 15 minutes per visit. Clinicians report this extra time is spent primarily interviewing the client and gathering of information from sources.

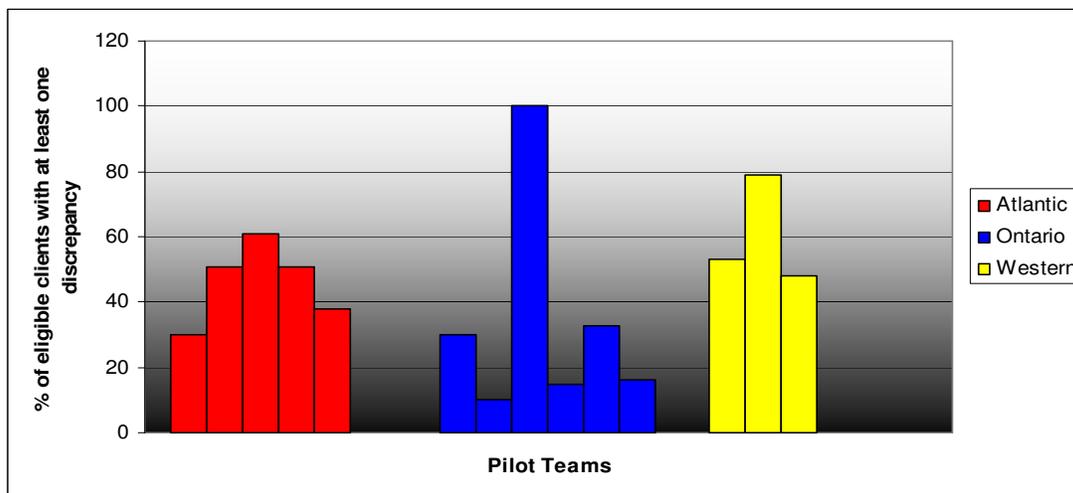
“Some of the clinicians felt that there was no real significant difference in the time to complete BPMH as compared to the current process; however others felt that it did take longer to do the BPMH as it was a more thorough history. The ones who did see a difference in the time did state it was only in a matter of approximately 15 minute.”⁷

Gina Cross RN

Percentage of Eligible Clients with at Least One Discrepancy Requiring Clarification:

The data reveals the national pilot discrepancy rate is 45.2%. This means that of 611 clients sampled, 276 clients had discrepancies that required clarification by a physician / primary care practitioner on admission to the home care organization. The pilot project range on this measure was 10% to 100%. The graph below displays the average percentage of discrepancies of each team over the course of the pilot:

⁷ SHN! Medication Reconciliation in Home Care Pilot Project Scrapbook of Testimonials



Factors that impact the percentage of discrepancies are similar to the previous measures. Listed below are factors that clinicians identified as impacting the presence of discrepancies related to clients' medication on admission to the home care agency:

- Chronic disease: Clients with multiple chronic diseases with complex medication regimens demonstrated a higher number of discrepancies.
- Client Health Literacy: The client's ability to understand his/her medication regimen impacts compliancy.
- Client Financial Status: Clinicians indicated that omissions of medications related to the lack of funds to purchase was notable throughout the pilot period.
- Lack of information from referring source: Information from the referring source limited the clinician's ability to confirm a client's medication regimen.
- Clinician knowledge and skills: Clinician knowledge of the medication reconciliation process and medications did impact the ability of the clinician to identify discrepancies.

It is important to note that discrepancies were not only present in clients with complex medication regimens. Data from the pilot project also revealed that all clients discharged from the acute care setting are at risk for discrepancies. Some pilot teams targeted all referrals from the acute care facilities regardless of any identified risk and found that discrepancies still existed in clients regardless of their risk level. To that end, team leader Kelly Budgell of the VON Lunenburg pilot team stated:

“The most interesting discovery by our team on this pilot was that all clients are at risk for discrepancies. We did a BPMH on all clients discharged from an acute care setting and found that approximately 51% had discrepancies. So therefore, we feel all clients, not just those identified as high risk, would benefit from a well done BPMH”⁸

⁸ SHN! Medication Reconciliation in Home Care Pilot Project Scrapbook of Testimonials

Classification or Categorization of Identified Discrepancies:

The pilot project teams used the table below provided by the pilot project planning group to categorize each discrepancy identified:

Drug (A) (i.e. Diltiazem CD)	Dose(B) 120 mg	Route(C) PO	Frequency(D) once daily
A	Drug	A1- Medication not currently prescribed (omission) Prescription medications which the client has been taking but has not been currently prescribed by the prescriber (includes prescribed sample prescription medications and prescribed over-the-counter medications). Also includes a medication omissions (has a valid clinical indication but prescriber not included in current medication orders) A2- Client no longer taking medication (commission) The client is no longer taking prescribed medication but it has been prescribed (no valid current clinical indication) A3- OTC not taken as directed Client has not been not taking OTC medication as prescribed A4- Allergy Client has a clinically significant medication allergy to prescribed medication A5- Duplication Inadvertently two medications from the same therapeutic class A6- Drug Interaction Client has a clinically significant drug interaction to prescribed medication A7- Formulation (i.e. sustained release vs. immediate release)- incorrect or Omitted	
B	Dose	B1- Dose Different: <ul style="list-style-type: none"> ▪ Dosage client has been taking is different than what has been prescribed ▪ Not adjusted for renal function (only if info available) 	
C	Route	C1- Route Different: <ul style="list-style-type: none"> ▪ Route of the medication the client has been taking is different than what is prescribed 	
D	Frequency	D1- Frequency Different: <ul style="list-style-type: none"> ▪ Frequency of the medication the client has been taking is different from what is prescribed ▪ Not adjusted for renal function (only if info available) 	
E	Other (please specify)	E1- Other discrepancies not identified above which may cause harm to the client (includes illegible orders)	

When selecting categorization codes, each medication order will have one discrepancy categorization. Clinicians can select whichever they think is the most important. It is often helpful to defer to the alphabetical order (e.g. is for a medication order in which there may be an incorrect medication, an incorrect dose and an incorrect route...the clinician can select A drug)⁹

In a telephone focus group of pilot team members, the participants were asked for examples of discrepancies identified and in what category it was placed. The top categories of the pilot along with examples given by clinicians are listed below:

⁹ SHN! Medication Reconciliation in Home Care Pilot Project Information and Tool Kit Narrative, November 2008

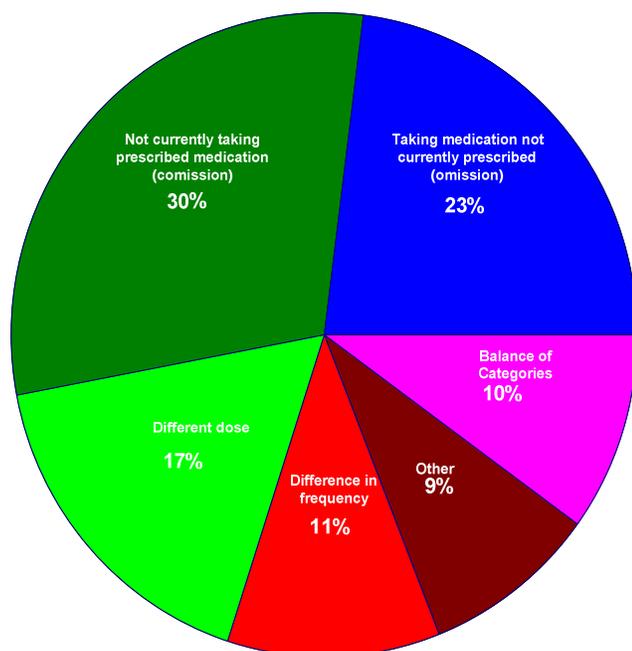
1. Client no longer taking medications as prescribed (commission)
 - Prescription not given to client on discharge.
 - Prescription not filled unintentionally.
 - Prescription not filled related to financial status.
 - Used as default category when discrepancies did not fit any other category.

2. Medication not currently prescribed (omission)
 - Resumption of medication as before hospital admission that has been discontinued.
 - Resumption of medication that client is taking ongoing but has not been re ordered at discharged from hospital.
 - Medication not administered while in hospital. No documentation on referral regarding medication.

3. Difference in dose
 - Client is taking different dose that is prescribed.
 - New dose ordered in hospital, client resuming medication at pre admission dose.

4. Difference in frequency
 - Resumption of medications at the same freq as previous to admission.

The total number of discrepancies identified over the course of the pilot was 631. The total number of clients with at least one discrepancy was 276. This equated to 2.3 discrepancies per client. The graph below breaks the discrepancies down by category:



Categories of Identified Discrepancies

There was mixed feedback on the use of the categorization chart. Some teams indicated they would not use this ongoing as it does not accurately capture all discrepancies, while others found it an effective way to communicate the type of discrepancy identified.

An overall review of the data did reveal some common themes. Listed below are themes and or trends identified to date:

- Discrepancies are significant even in lower risk populations.
- High discrepancy rate and time to complete BPMH are correlated.
- Duplication of documentation impacts the time per visit (time it takes for a clinician to perform all the required / ordered activities and services during a client visit). Within some agencies the pilot tools were used in addition to the current agency tools creating unnecessary duplication of documentation and effort.
- The pilot determined BPMH and related tool was client centered and facilitated client involvement in the medication reconciliation process.
- Teams with interdisciplinary members had a higher recorded time to complete BPMH than teams comprised of solely nurses.
- Non private organizations recorded higher times to complete BPMH than private agencies (regardless of profit or not for profit status).

For detailed data on individual teams, please refer to Appendix A.

PROJECT SUCCESSES

The pilot teams consistently identified common themes of reported successes throughout the project:

- Positive impact on clinicians and clients during the pilot project as reported by clinicians
- Improved clinician engagement and awareness of client safety issues
- Common goal/willingness to share across all participant organizations.
- Ongoing strategy development and testing resulted in more effective outcomes.
- Improved medication reconciliation process and tool development across agencies.
- A decrease in time to complete the BPMH as clinicians become more familiar with the process

The pilot project planning team and the pilot project team participants unanimously concluded that the data demonstrates that medication reconciliation is needed in the home care sector in order to address key client safety issues.

Clinician Engagement:

It was a general belief that clinicians in home care have been using a fragmented form of the medication reconciliation process in an informal manner for some time in an attempt to ensure clients are compliant with their medication regimen. This was most commonly referred to as a medication review or even called medication reconciliation, without consisting of a structured format or tools. Clinicians involved in the pilot welcomed this process as a means of formalizing the approach to client medication management.

“Home Care had been doing a form of reconciliation for some/many of it's clients for many years, the big difference is that now we are going to be looking at all clients, and with a very formal organized approach which will definitely improve our ability to support our clients by decreasing the potential for and very real harm from medication errors.”¹⁰

*Mary Jane Callaghan
Pilot Team Leader
Continuing Care PEI*

Education in medication reconciliation including sharing the benefits through testimonials on how this process has positively impacted clients was successful in securing clinician engagement. Testimonials such as the one below were shared:

“I was seeing a client twice daily with severe orthostatic hypotension in which VON was to monitor her blood pressure and provide nursing support. The client was finding it difficult to cope and unable to live her life normally due to extreme dizzy spells when standing/walking. Through medication reconciliation, I realized that she was on multiple blood pressure medications that required reassessment. Her family doctor was notified and there was a change made to her medication regime. Her blood pressure stabilized and she no longer requires any home nursing care.”¹¹ Lindsay Bellavance RN, VON Perth Huron Team Member

¹⁰ SHN! Medication Reconciliation in Home Care Pilot Project Scrapbook of Testimonials

¹¹ SHN! Medication Reconciliation in Homecare Pilot Project Scrapbook of Testimonials

Common Goals/Willingness to Share:

It was evident early on in the pilot that team members shared the project's common goal and were willing to share successes and lessons learned throughout the pilot project. Tools were regularly uploaded to the SHN Medication Reconciliation in Home Care Community of Practice for sharing in addition to sharing during engaging and interactive pilot team teleconferences.

Medication Reconciliation Process and Tool Development:

A variety of agencies expressed excitement when tool development worked effectively for their particular organization. Discussions with team members regarding what information was necessary, was key to the success of the tools. The main strategy in this regard was to keep tools and processes as simple as possible. Listed below are additional learnings in this area:

- A strategy for tool development was to review tools from local acute care and long term care facilities for visual and functional effectiveness. This may serve to support physician buy in as the tool will look familiar to them.
- Caution was expressed when using shaded areas to draw attention to the physician as legibility may be an issue once the BPMH is faxed a few times.
- Clinician trust in the tools precipitated reduction in duplication of documentation. Success was reported with carbon copying of tools where appropriate. However caution was identified not to use this to share with the client if literacy, dementia and / or sensory challenges are evident as this form of documentation may be a barrier for understanding.

Strategy Development for Physician Engagement:

Pilot teams did report some successful strategies in securing physician engagement in the process:

- The use of standard, concise information on a cover sheet to accompany the BPMH including directions for hand off back to either the agency or client supported the continuation of the process from beginning to end.
- Obtaining feedback from the physicians directly, asking for their input on tool development and the process was identified as helpful.
- Keeping the tools familiar looking to the physician by reviewing tools used in acute and long term care increased involvement.
- Accessing formal linkages to inform physicians of the implementation of medication reconciliation in their community was successful for some agencies.

Data Collection:

Regular data was received from 93% of the pilot teams. The data also demonstrates that 45.2% of eligible clients with a BPMH completed have discrepancies. This gives solid evidence that Medication Reconciliation is needed in the homecare setting. It also demonstrates that as the clinician becomes proficient the average time to complete the BPMH is reduced.

LESSONS LEARNED DURING PROJECT

There were several crucial lessons learned during the course of the pilot. Listed below is a summary of the most prevalent ones:

Resource and Time Intensity:

All pilot teams acknowledged that at the initial onset, the implementation of medication reconciliation is labor intensive and can be time consuming. Most of the time spent at the beginning is in relation to planning and education. This component is considered key to the success of implementing medication reconciliation into the daily operations of the organization. Retrospectively, teams felt that the time invested initially was well worth it. As clinicians became more knowledgeable about the process and familiar with the tools the actual time to engage in medication reconciliation was reduced.

Implementation:

Organizations took various approaches to implementing the pilot project internally. Most identified a team leader who then selected a small group of clinicians and support staff to be involved in the pilot, while others engaged entire departments. The range in pilot team size was 4 to 15 members. The key lesson communicated by most organizations was to 'start small'. Those who engaged a larger group found it extremely labor intensive at the onset and found it difficult to gain consensus at times to move forward. Smaller teams worked more efficiently as changes and testing could be done without too much difficulty.

Identified Pilot Challenges:

The challenges identified during the medication reconciliation pilot project were not all unique to the homecare setting. Communication, human resources, and system challenges are recognized to be common across the health care continuum. However, in the home environment there are unique factors that intensify these challenges and add a layer of complexity which needs to be considered when implementing medication reconciliation into the home care setting.

Tool and Process Development:

Clinicians throughout the pilot report that it was difficult at times to maintain a client centered approach to care when challenges such as workload become overwhelming in their everyday work. They also acknowledged that the pilot project tools developed to support the medication reconciliation process and medication reconciliation process itself is inherently client centered and therefore supports a client centered approach to their practice. Clinicians from various organizations also reported that most current agency medication review tools and processes are not sufficient to identify discrepancies and prevent adverse events in the community.

Available Resources/Formal Linkages:

It became very evident throughout the pilot that the availability of resources to the pilot teams is not standard. Organizations directly linked to provincial Health Departments and those home care services offered through Regional / District Health Authorities reported having increased accessibility to a variety of resources and formal linkages to specialists, pharmacists, and primary care providers than the private (for profit and not for profit) agencies.

Communication Within the Client Circle of Care:

Communicating the benefits of sending the BPMH to the most responsible physician / primary care provider proved to be a successful strategy for some organizations in the identification of medication discrepancies. Some teams elected to forward the completed BPMH to the physician even if there were no discrepancies identified in order to enhance their awareness and improve client care. Importantly, several of the BPMHs came back with medication changes as the physician identified discrepancies that were not picked up by the home care clinician. The physician also had the most up to date medication list for the client. Caution was also expressed here by clinicians not to inundate physicians with unnecessary “paperwork” as it might negatively impact physician engagement in the process.

Changing the Perception of Medication Reconciliation in Home Care:

Medication reconciliation has existed in the homecare sector in an informal manner for years, usually understood and practiced as a medication review that occurred at admission, though not always consistently or formally. The application of the pilot project approach to the management of medications through the use of standardized processes and tools in the home care setting is a means of formalizing the process and making it more consistent across the sector.

High Risk Client Identification/Screening:

The literature and experience from the pilot project identified that all clients taking medications are at risk for adverse events related to their medication regimen when transferring from one care setting to another regardless of the acuity. It has also been found that clients are at higher risk during specific points of care within the home care setting such as after transfers, specialist appointments and physician / NP appointments in which new medications are ordered or their medication regimen changes.

Data Collection:

Data collected during the term of the pilot project supports both the need for, and importance of a formal medication reconciliation process and protocol in home care. Clients are at significant risk for adverse events related to their medication regimen on transfer from the acute care setting and admission to the home care environment as well as during subsequent transfers and medication regimen changes as outlined above.

THE MEDICATION RECONCILIATION PROCESS IN HOME CARE - FRAMEWORK

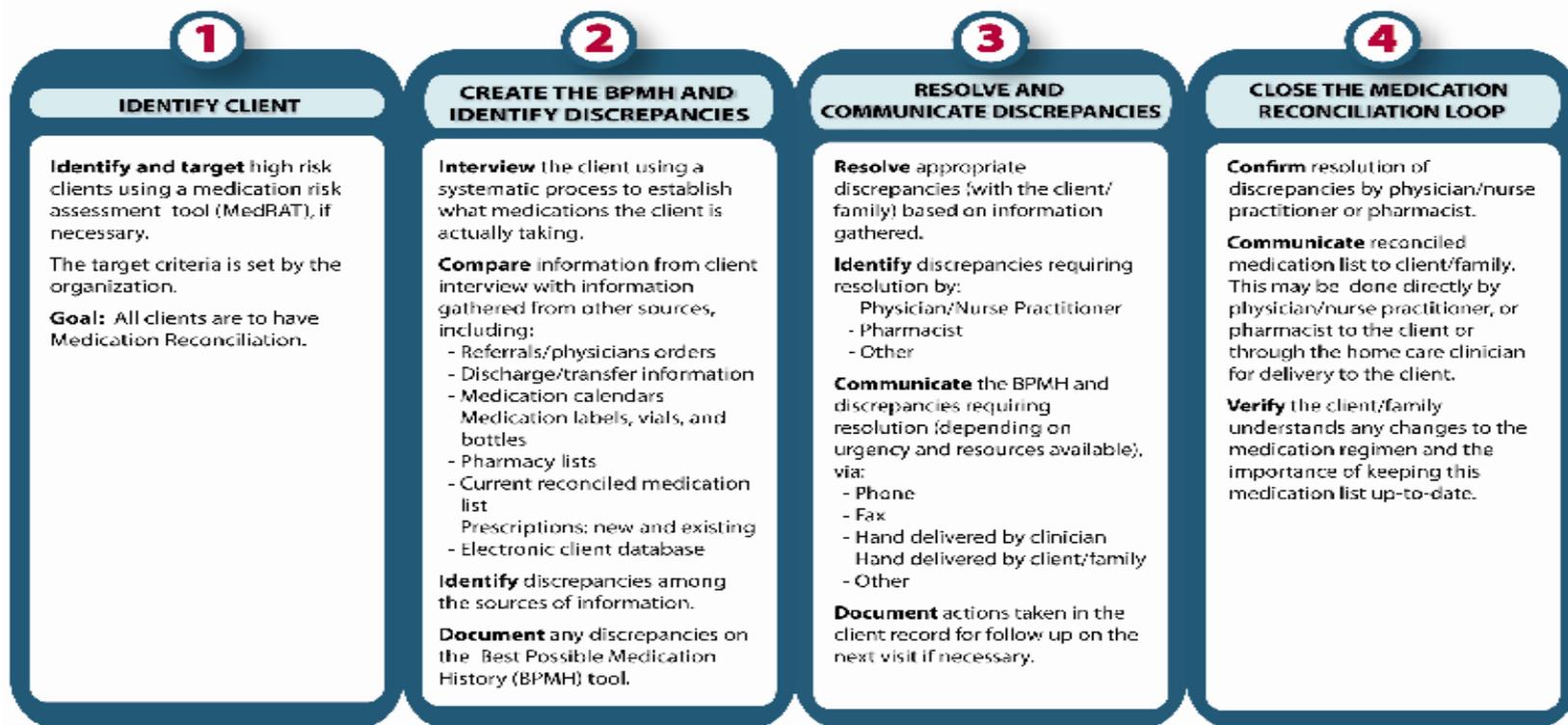
Four basic steps were identified within most of the pilot team flow charts for medication reconciliation in their respective organizations. This was key in the development of this broad medication reconciliation process and framework for home care as outlined below.

This framework does not specify when to apply the process but rather focuses on the flow of communication amongst team members within the client's circle of care in order to ensure the client has an up to date reconciled medication list in the home thus reducing the potential for adverse events related to medications.

The timing for initiation of this process is client specific with standards of expectations set by individual organizations and accreditation and regulatory bodies such as Accreditation Canada. As the home care clinician progresses through the process, strategies are applied to manage identified challenges in order to ensure that the end result is an up-to-date reconciled medication record in the hands of the client and family in a language (including terminology) which they understand.

FRAMEWORK - MEDICATION RECONCILIATION PROCESS IN HOMECARE

The Medication Reconciliation Process in Home Care



Created by ISMP Canada and VON Canada for Safer Healthcare Now!

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¹² [Conrad, Deborah](#), VON Canada, SHN! Medication Reconciliation in Home Care Pilot Project Coordinator; [Catherine Butler](#), VON Canada, SHN Medication Reconciliation in Home Care Pilot Project Co-Lead; [Marg Colquhoun](#), ISMP Canada, SHN Medication Reconciliation in Home Care Pilot Project Co-Lead; [Brenda Carthy](#), ISMP Canada; [Alice Watt](#), ISMP Canada; [Fernandez, Olavo](#), ISMP Canada Updated: Feb'10

In order to identify exactly what Medication Reconciliation is in home care, the following key questions needed to be considered:

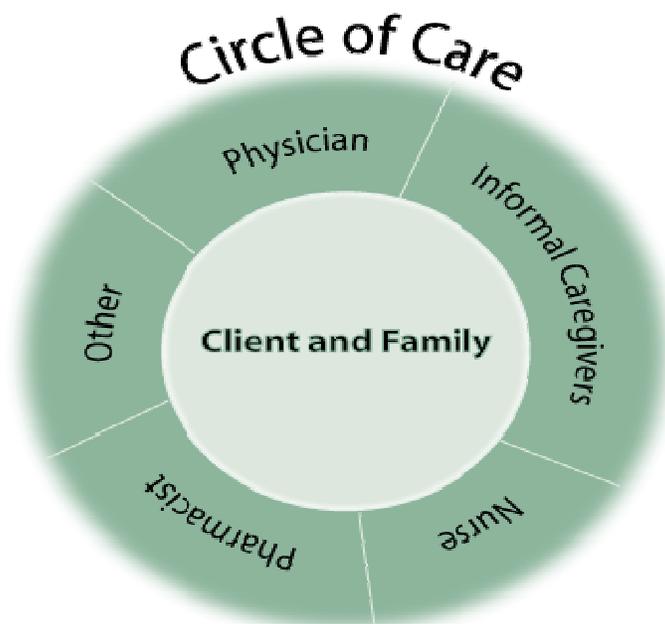
1. What is Medication Reconciliation in home care?

Overall, medication reconciliation in home care is a process of communication between all members of the client's circle of care, and includes the client at the centre. The process provides a means of obtaining the most up to date and accurate list of medications the client is taking (prescription and non prescription, including herbal remedies and supplements). This list is clearly communicated throughout the team. The BPMH is the tool of choice in this communication process to most accurately record the information and to move the information collected through the process.

2. Who is involved in the medication reconciliation process?

In order to successfully undertake medication reconciliation in home care, the client's circle of care needs to be identified at the onset of service and continuously updated to reflect changes. This circle of care involves formal and informal caregivers, the client/family, physicians / nurse practitioners, pharmacists, case managers, care coordinators and any other health professional involved in the client's care.

CLIENT CIRCLE OF CARE



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¹³ VON Canada, SHN! Medication Reconciliation in Homecare Pilot Project Co - Lead September 2009.

3. What are the responsibilities of those within the client circle of care?

- All members of the client's circle of care have a shared responsibility to promote client safety related to medications and the reduction of medication adverse events.
- Each member must be accountable to do their part to ensure the completion of the medication reconciliation process.
- It is the responsibility of each member to know their scope of practice and know when to appropriately 'hand off' to someone else within the circle of care in order to keep the process moving and to ensure the highest possible level of client safety.
- The circle of care begins and ends with the client to support a client centered focus.

4. When is it time to 'hand off' the process to another member within the client's circle of care?

When to transfer or 'hand off' the process is always client specific and dependent on who owns and is overseeing the process at any given point. Listed below are points along the process when medication reconciliation may be appropriately transferred to another member within the client's circle of care:

- When the action required is outside the clinician's scope of practice.
- When there is insufficient information for the clinician to carry on further along the process.
- When the clinician/organization is no longer within the circle of care.
- To promote continuation and/or completion of the process.
- When the client chooses not want to engage in the process.

5. Which member within the circle of care do clinicians 'hand off' the process to?

The medication reconciliation process should be transferred or 'handed off' to the most appropriate member of the client's circle of care who will ensure safe transfer of the information and move the medication reconciliation process along.

This depends on some of the following points:

- Membership within the individual client's circle of care.
- Consideration of what point(s) along the process the 'hand off' should ideally occur.
- The client's level of self care and understanding.
- The client's available informal support network/caregivers.
- Availability of community resources for individual clients.
- At the clients request.

6. How is the process 'handed off' between members of the client circle of care?

Transfers / 'hand offs' are identified as being risk points for errors and medication adverse events along the medication reconciliation process. If communication is not

clear and precise the risk of process failure is possible and client safety can be compromised. It is recommended that standard strategies should be put in place by home care organizations to reduce risks at all transfer and ‘hand off’ points. Methods of ‘hand offs’ also depend on resources available to the clinician at that moment in time along with the urgency of the request. Common methods of ‘hand off’ identified during the pilot project are listed below:

- Fax a copy of the BPMH to a member of the circle of care (e.g. family physician or NP).
- Provide a paper copy of the BPMH to the client to take to a member of the circle of care (e.g. family physician or NP; specialist).
- Place a phone call to a member of circle of care to provide information.
- Referral to community resources related to medication safety (e.g. community pharmacist).
- Face-to-face discussion with the client/family to encourage them to access community resources to increase their knowledge about medication safety.

7. **When is the right time to undertake medication reconciliation in home care?**

The right time to undertake medication reconciliation in the home is when clients are at specific points of care where there is risk for potential discrepancies. It has been documented that clients are most at risk when care is transferred from one setting to another. In order to manage this risk it is suggested that medication reconciliation should be undertaken at admission, transfer and discharge within health care organizations.

The unique factors within the home care environment discussed earlier may put home care clients at additional risk for discrepancies. Due to the presence of multiple service providers and delivery settings there are many points of care at which the client is at increased risk for medication adverse events. It is up to the clinician to assess and identify when the client might be at increased risk and take action. Triggers for undertaking medication reconciliation in the home care setting might include:

- Initial admission to a health care organization
- Client visits to physicians /nurse practitioners / clinics / hospital / specialists.
- A change in client health status.
- Interruption in care; external transfer or discharge
- Transfer to an alternate level of care within the organization.
- As determined by clinician assessment.

The following diagram identifies potential opportunities for clinicians to engage in medication reconciliation in the home care setting. It is up to the individual organization to review minimum standards set by Accreditation Canada in addition to organizational policy when developing expectations for medication reconciliation as a standard of practice.

8. What does medication reconciliation in home care look like?

As previously indicated, the medication reconciliation process in home care is specific to the client and the individual client situation. The client can be at risk at many points along the process; these are identified by changes, transfers or “hand offs”. It is at these points along the process when effective strategies are important to ensure safe transitions to subsequent members of the client circle. The following diagrams provide examples of what medication reconciliation might look like at admission to the home care organization.

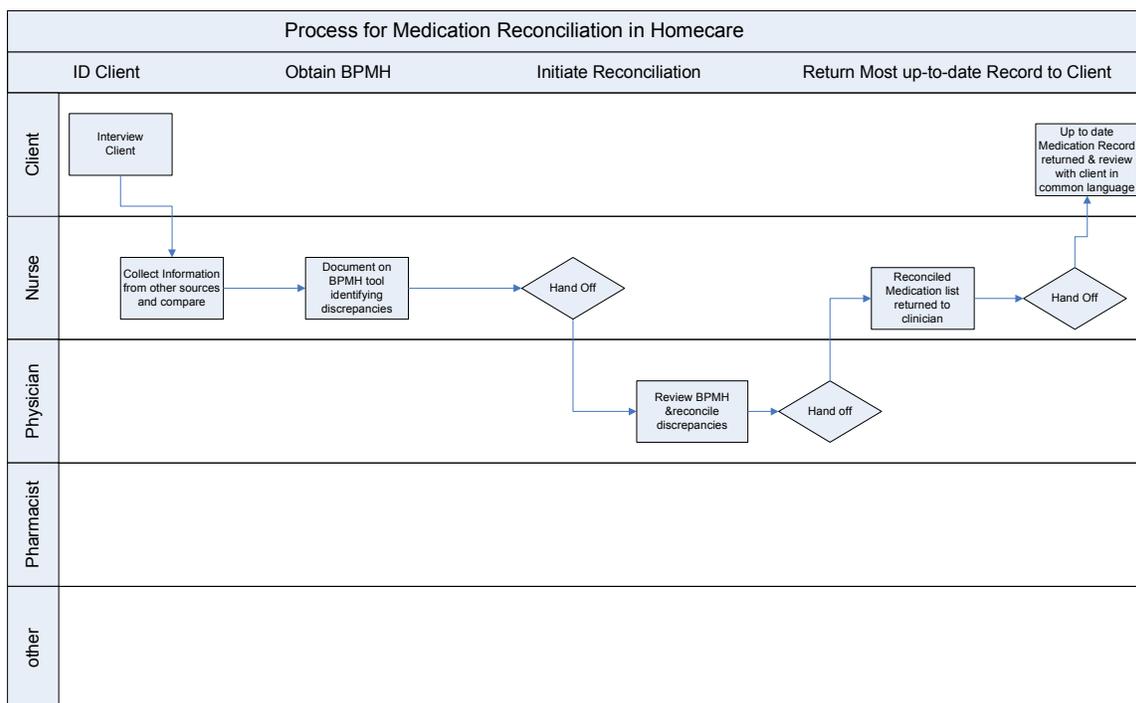
EXAMPLE ONE

Who? Client Circle of Care:

Client, physician / nurse practitioner, home care nurse

When? Admission to Home Care Organization:

The client is admitted to the home care organization for ongoing service. The nurse obtains the BPMH and hands it off to the most responsible physician / nurse practitioner for reconciliation.



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¹⁵ SHN! Medication Reconciliation in Home Care - Presentation May, 2009

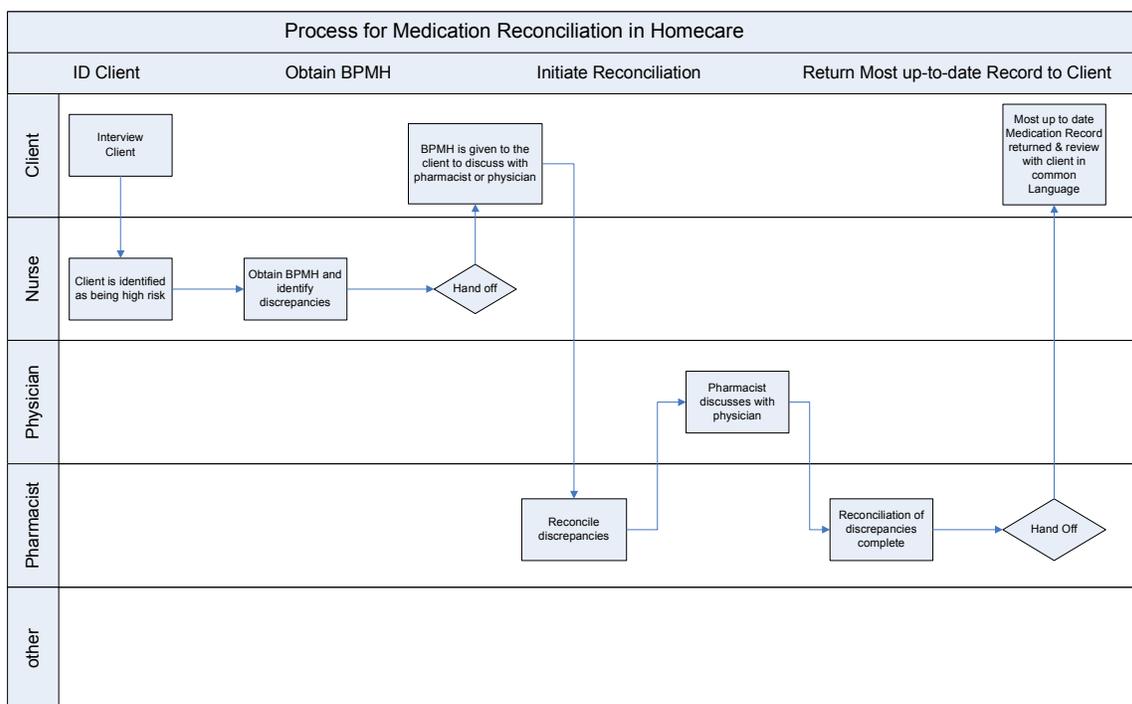
EXAMPLE TWO

Who? Client circle of care:

Client, pharmacist, physician / nurse practitioner, home care nurse

When? Admission to Home Care Organization:

The client is admitted to the home care organization for short stay care. The BPMH is completed and handed off to the client as the agency will no longer be providing services to the client. The client is then referred to a community resource for reconciliation. The example below accesses the community pharmacist. The client may choose to take the BPMH directly to the physician for reconciliation.



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¹⁶ SHN! Medication Reconciliation in Home Care - Presentation May, 2009

**POINTS FOR CONSIDERATION WITH THE IMPLEMENTATION OF
MEDICATION RECONCILIATION IN THE HOME CARE SETTING**

Over the course of the pilot project, challenges, successes and lessons learned were identified, shared and applied when appropriate amongst the project teams. Interestingly, some of the key challenges also presented themselves as opportunities for success within the pilot. Lessons learned from these successes along with feedback from various pilot team members were considered in the formulation of pilot project recommendations. Below are the key points and recommendations for organizations to consider:

- 1. Stakeholder and key partners in the home care sector must understand and acknowledge the factors unique to the home care environment in order to successfully implement medication reconciliation into the community setting.**

Successful management of challenges in the home care environment will have considered these unique factors in strategy development.

- 2. Organizations need to investigate available community resources to support the implementation of medication reconciliation.**

Identify programs related to medication reconciliation already in place in the community. For example, Ontario has the Med Check program through participating community pharmacies.

- 3. In order to successfully implement and sustain medication reconciliation, organizations must invest in sufficient education / training of clinicians in:**

- a. Medication Reconciliation as a non – negotiable client safety initiative.
- b. Clarifying and communicating the clinician’s role within the medication reconciliation process.
- c. Available community resources to support the process - specifically the role and services offered by community pharmacists.
- d. Scope of practice of key players within the client’s circle of care

The planning phase of this client safety initiative can be labor intensive but is imperative in setting the stage for successful implementation within individual organizations. Without this investment and planning, clinician engagement may very possibly give way to frustration and resistance to change. The organization and clinicians need to have a solid foundation of understanding the medication reconciliation process and tools in order to facilitate successful implementation.

Understanding available community resources and team members scopes of practice will equip clinicians with the understanding and tools to share the workload with appropriate members of the client’s circle of care.

4. Develop strategies to secure physician engagement

- a. It became evident very early on in the pilot that not all organizations have the same resources and avenues of communication available to them. Home care organizations directly overseen by provincial health departments or Regional Health Authorities reported having more formal linkages and communication through internal and external committee involvement. Such linkages were tapped into as a strategy to secure engagement from local physicians. Representatives from the organizations used these opportunities to introduce and promote the concept of medication reconciliation in home care by demonstrating the benefits to the physician.
- b. Where possible, identify a physician champion and ask for input on BPMH tool development.
- c. Work to ensure that all tools are clear, simple as possible, efficient and user friendly. Physicians / nurse practitioners may be familiar with medication reconciliation tools in the acute care and long term care setting so it may be a good idea to review tools used in these settings and to try to keep the tool similar in appearance so the view is familiar to the physician / nurse practitioner. Where possible, keep the paperwork to a minimum!
- d. Develop and send out a standard letter of introduction to physicians / nurse practitioners if possible on the medication reconciliation initiative that the organization is about to implement to build awareness.
- e. Develop and use a standard cover page to be attached to all BPMH forms when faxed to the physician / nurse practitioner for review and reconciliation. Keep the cover letter short and to the point.
- f. Investigate possible payment for physician/clinician communication as is available in British Columbia. Site the billing code on the standard cover letter.

5. Invest in strong, committed, leadership

The pilot project teams quickly identified the importance of identifying a visible leader and champion for client safety initiative. Throughout the pilot it was evident that organizations with formal leaders who were visibly committed to the success of the project had more success in implementation. Such leaders must recognize that though barriers in the form of competing priorities will always be a part of the health care system landscape (e.g. staff shortages related to sickness and resignations; labor relation issues and the threat of a major pandemic (H1N1 virus) were just a few competing priorities the pilot teams faced over the course of their involvement in this pilot project), perseverance to seeing the end result cannot be lost. Those pilot teams with strong organizational and team leadership still encountered and dealt with challenges, but appeared to be able to regain momentum quickly once the team reevaluated and regrouped. Those teams with less visible and clear leadership reported having more struggles in meeting project commitments such as data quotas.

6. Consider an ultimate goal of undertaking medication reconciliation with ALL clients admitted to service in the homecare organization

Evidence through the pilot project indicated that even clients who were not identified as high risk for adverse events still often presented with discrepancies. Some pilot teams found that in order to meet the data submission requirements, they needed to relax the eligibility criteria to include all clients admitted to the organization. When the data was reviewed and compared it was found, to our surprise, that there was no decrease in the percentage of discrepancies identified when the criteria was relaxed. As a result over the course of the pilot, the Pilot Project teams and the Steering Committee ultimately identified that the ultimate goal should be that ALL clients with medication management / administration as part of their required services, should have medication reconciliation done at the very minimum on admission to the home care organization. However, due to the time intensity and human resource challenges for many homecare organizations, this is not a realistic goal at the onset of this client safety initiative and it is advised that organizations begin by targeting those clients at highest risk using a Medication Risk Assessment Tool and over time, as clinicians become more familiar with the process and more comfortable and efficient, that the organization expand to include a broader client base in the process.

7. Start small

To build on the above discussion, before starting, the home care organization will need to be aware of the acceptable minimum standards for medication reconciliation for the sector as set by Accreditation Canada and / or relevant stakeholders such as funding bodies. As identified earlier in this report, implementation of this process can be labor intensive initially so it is advised that organizations with no current medication review processes in place, or with extremely limited resources, start small. Organizations can start with a single program, unit / department or geographic location. Once the process is adapted to individual organization policies, processes and work flows, and strategies have been identified and successfully tested to manage challenges, only then does it make sense to increase the scale of implementation. This can be done more effectively through the use of a Medication Risk Assessment Tool (appendix B). This tool is also effective in identifying further actions such as medication preload, or blister packing as an approach to client care.

8. Use a systematic standard guide for interviewing the client along with visual aids to enhance the understanding for the client/family and support communication between the family & clinician

SHN, in collaboration with ISMP Canada have developed a standard tool (appendix C) for assisting with the collection of information in completing the BPMH. This interview tool was used with success in this medication reconciliation in home care pilot project and is included in the “Getting Started Kit” for medication reconciliation in home care.

9. Standardize organizational tools, guides and processes

A variety of tools are available on the SHN Communities of Practice as tested and used by the various teams participating in the pilot project. One thing learned from the SHN

Western Medication Reconciliation Collaborative as well as this pilot project was the importance of keeping tools and processes as simple as possible to promote use. The most effective BPMH form to date is one that incorporates the history and physician order on the same form (appendix D). Development of standard tools, guides and processes within the organization will support predictable outcomes.

NEXT STEPS

As of Spring 2010 pilot teams have completed their commitment to this pilot project and are taking the next steps to implementing medication reconciliation into their various organizations. The planning group will continue with activities in line with the project plan: Listed below are the next steps:

- Formulate a report for SHN (submitted March 2011)
- Develop a “Getting Started Kit” for Medication Reconciliation in Home Care (submitted July 2010)
- Plan for ongoing support to home care organizations and teams that have expressed interest in medication reconciliation (SHN regional nodes to provide ongoing support and the Virtual Action Series offered September – December 2010 initiated more teams).
- Ongoing advocacy by CPSI, SHN and the project co- lead organizations (VON Canada and ISMP Canada) to communicate and promote the importance of medication reconciliation in home care to external stake holders and key community partners.

GLOSSARY OF TERMS

Admission: The initiation of service in a home care organization. For the purpose of this pilot this related to those new clients to the organization and those clients whose service was suspended for hospital admission with care then transferred back to the community.

Best Possible Medication Discharge Plan (BPMDP): It is the most appropriate and accurate list of medications the patient should be taking after discharge for acute care.¹⁷

Best Possible Medication History (BPMH): A current medication history obtained by the clinician which includes all regular and ‘as needed’ medication used (prescribed and non prescribed), using a number of different information sources including first and foremost the client. Possible sources for information gathering may be:

- Inspection of medication containers, bottles, vials (including herbal supplements)
- Client medication calendar
- Referrals, physician / NP orders, discharge summaries etc.
- Best Possible Medication Discharge Plan (BPMDP) from discharging facility
- Pharmacy lists
- Information gathered from discussion with members of the client circle of care

BPMH Tool: A tool to record the best possible medication history. Discrepancies are identified on the tool and delivered to the most responsible physician / NP for reconciliation of discrepancies.

Client Centered Care: Client centered care is defined by Registered Nurses Association of Ontario as follows; “An approach in which clients are viewed as whole; it is not merely about delivering services where the client is located. Client centered care involves advocacy, empowerment, and respecting the client’s autonomy, voice, self-determination, and participation in decision-making.”¹⁸

Circle of Care: The group of individuals including the client and family who are both formally and informally involved in the client’s care. This includes health care professionals/providers, formal and non formal caregivers. In home care, this is specifically those who are involved with the client’s care within the community.

Communities of Practice (COP): The SHN Medication Reconciliation COP is an online ‘neighborhood’ for healthcare professionals to discuss debate, share and get support for ideas, insights and practices related to medication reconciliation.

Discharge: The process in which the client is formally discharged from an organization’s care.

¹⁷ ISMP Canada, Assuring Medication Accuracy at Transitions in Care: Medication Reconciliation High 5s: Action on Patient Safety Getting Started Kit, 2008

¹⁸ Registered Nurses’ Association of Ontario (March 2009) Nursing Best Practice Guidelines Shaping the future of Nursing: Client Centered Care Supplemental ,Toronto Canada

Discrepancy: A difference identified between what the client is actually taking versus the information obtained from other sources. Bedell et al. defines discrepancies in the outpatient setting as, “the difference between the list of medications in the medical record (referred to as recorded medications) and what the patient actually took based on medication bottles and on self-reports (referred to as reported medications)”¹⁹

Handoff: *For the purpose of this document and in the context of medication reconciliation in home care*, the term “hand off” refers to the transfer or delivery of client information between members of the client’s circle of care in order to continue the medication reconciliation process. As handoffs may be points of increased risk, strategies are utilized to ensure deliberate, clear, and safe communication when moving information from one member to the next.

Health Literacy: The ability to read, understand and effectively use basic healthcare information and instructions.²⁰

Medication Reconciliation: A formal process in which healthcare professionals partner with clients to ensure accurate and complete medication information transfer at interfaces of care. It involves a systematic process for obtaining a medication history, and using that information to compare to medication orders in order to identify and resolve discrepancies. It is designed to prevent potential medication errors and adverse drug events.²¹ In the home care environment, the process starts and ends with the client. The end result is the reconciled home medication list/record (RHML) which is then delivered to the client/family in a way that facilitates understanding and is available to the health care team

Medication Risk Assessment Tool (MedRAT): A screening tool to identify those clients who are at risk for adverse events related to their medication regimen. This tool has been used by some pilot teams to identify their target population.

Prescribed Medication: This refers to medications in the client medication regimen that have been prescribed by a physician / nurse practitioner. This includes over the counter (non-prescription) medications that have been recommended by the physician / nurse practitioner.

Readmission: A formal process for current home care clients who are transferred to another provider of care, and then return to the home care organization’s service where the home care agency restarts service. For example, an existing client of a home care agency is discharged home into the care of the agency after a stay in an acute care facility.

Risk point: A specific point of care at which a client may be at risk for an adverse event related to their medication regimen. This may occur while the client is still under the care of the home

¹⁹ Bedell SE, Jabbour S, Goldberg R, et al. Discrepancies in the Use of Medications: Their Extent and Predictors In An Outpatient Practice. Arch Intern Med 2000; 160; 2129-2134

²⁰ Manitoba Institute of Patient Safety, www.safetoask.ca, Information for Providers

²¹ ISMP Canada, Assuring Medication Accuracy at Transitions in Care: Medication Reconciliation High5s: Action on Patient Safety Getting Started Kit, 2008

care organization, however, is at risk related to transfer of information from within the client circle of care.

Best Possible Medication History (BPMH) Interview Guide: A standard set of questions including visual cues used by the clinician during the client interview portion when obtaining the BPMH. SHN in collaboration with ISMP Canada have developed a tool which was used by the pilot teams and is available through the SHN website.

Reconciled Home Medication List/Record (RHML): The end result of the medication reconciliation process with all discrepancies identified and resolved. It is the most up to date accurate medication list for the client. All entries should be dated.

Sample population: Clients who fit the eligibility criteria for the pilot; were identified as high risk for adverse medication events in the home environment, and had a BPMH completed by a trained clinician participating in the pilot project.

Target population: Clients who fit the eligibility criteria for the pilot project and were identified as high risk by trained pilot project clinicians.

Trained Clinician: The frontline pilot clinicians applying the medication reconciliation process in the community. These professionals can be nurses, pharmacists, social workers, occupational therapists, physiotherapists, or case managers who are trained in the pilot approach to medication management.

APPENDICES

Appendix A - Pilot Team Averages

Pilot Teams			% of Eligible Clients with BPMH	Time to Complete BPMH (minutes)	% of Eligible Clients with at Least one Discrepancy
Node	Team	Sample Total			
Atlantic	NL	47	100	38	30
	PEI	62	96	44	51
	NB	68	48	88	61
	VON Lu	41	100	20	51
	VON CB	40	100	47	38
Ontario	VON P-H	55	77	36	30
	VHA	39	91	28	10
	VON M-E	37	86	40	100
	St Liz	13	100	12	15
	Can Care	49	100	28	33
	Para Med	24	100	30	16
Western	IHR K	26	93	70	53
	AL ED	77	99	72	79
	VCH	33	74	50	48
Pilot Totals/Average		611 clients	86.5%	Range 12 – 88 Median 40	46%

Last updated: September 14, 2009

Appendix B – Categorization of Identified Discrepancies

Pilots	Discrepancies Identified											
Pilot Teams	Total Discrepancies	Codes										
		A1	A2	A3	A4	A5	A6	A7	B1	C1	D1	E1
NB	145	35	26	3	0	9	3	2	28	1	32	5
PE1	51	8	14	1	0	2	0	2	11	0	4	6
VON LUN	29	11	1	0	0	1	0	0	9	0	0	8
NL	17	4	4	0	0	0	0	0	5	0	2	1
VON CB	34	15	15	0	0	0	0	7	2	0	0	5
ED, AL	178	37	72	4	0	0	0	1	27	0	20	13
IHI K	37	8	14	0	0	0	0	0	7	0	5	3
VHA - SQU	29	3	12	2	0	1	1	0	3	0	4	3
CAN CARE	41	5	6	1	0	1	20	0	2	0	4	5
PARAMED	8	3	0	0	0	0	0	0	2	0	1	2
ST LIZ	2	1	0	0	0	0	0	0	0	0	0	1
VHA HEALTH	14	2	8	0	0	0	0	0	3	0	0	1
VON M-E	29	11	1	0	0	1	0	0	9	0	0	8
VON P-H	17	1	11	0	0	4	1	0	0	0	2	0
TOTAL	631	144	184	11	0	19	25	12	108	1	70	58
Ranking		2	1	8		7	6	10	3	9	4	5

Total number of clients with at least one discrepancy: 276

Total number of discrepancies: 631

Average number of discrepancies per client: 2.3

Last updated: September 2009



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Patient Label

**MEDICATION RISK
ASSESSMENT TOOL (Med
RAT)
(Extra-Mural Program, Driscoll Unit)**

Initial Assessor: _____
Med Rec Assessor: _____
Date & Time: _____
Date & Time: _____

1. **Patient discharged from acute care at The Moncton Hospital?**

Yes No

2. **Reside in Moncton or Riverview?**

Yes No

3. **IS THE CLIENT'S MEDICATION REGIMEN:**

Simple

Complex (please see reverse for more

information)

4. **IS THE CLIENT'S MEDICATION ADHERENCE BEST DESCRIBED AS:**

Taking as prescribed

Chaotic (Tick off possible reasons below)

Impaired cognition

Impaired vision, hearing, swallowing

Lacks necessary support

Lower literacy or ESL (English second

language) issues

Side effects

Cost

Client's beliefs/expectations

Lacks basic understanding of medications

Age

Frequent admissions to hospital

Other (describe)

Document owner: VON Canada, March 2010

5. **IS THE CLIENT ON ANY HIGH RISK MEDICATIONS?**

Best Possible Medication History Interview Guide

Introduction

- Introduce self and profession
- I would like to take some time to review the medications you take at home.
- I have a list of medications from your chart/file, and want to make sure it is accurate and up to date.
- Would it be possible to discuss your medications with you (or a family member) at this time?
 - Is this a convenient time for you? Do you have a family member who knows your medications that you think should join us? How can we contact them?

Medication Allergies

- Do you have any medication allergies? If yes, what happens when you take _____?

Information Gathering

- Do you have your medication list or pill bottles (vials) with you?
- Show and tell technique when they have brought the medication vials with them
 - How do you take _____ (medication name)?
 - How often or When do you take _____ (medication name)?
- Collect information about dose, route and frequency for each drug. If the patient is taking a medication differently than prescribed, record what the patient is actually taking and note the discrepancy.
- Are there any prescription medications you (or your physician) have recently stopped or changed?
- What was the reason for this change?

Community Pharmacy

- What is the name of the pharmacy that you normally go to? (Name/Location: anticipate more than one)
 - May we call your pharmacy to clarify your medications if needed?

Over the Counter (OTCs) Medications

- Are there any medications that you are taking that you do not need a prescription for? (Do you take anything that you would buy without a doctor's prescription?) Give example, e.g. Aspirin. If yes, how do you take _____?

Vitamins/Minerals/Supplements

- Do you take any vitamins (e.g. multivitamin)? If yes, how do you take _____?
- Do you take any minerals (e.g. calcium, iron)? If yes, how do you take _____?
- Do you use any supplements (e.g. glucosamine, St. John's Wort)? If yes, how do you take them ___?

Eye/Ear/Nose Drops

- Do you use any eye drops? If yes, what are the names and how many drops do you use and how often? In which eye?
- Do you use any ear or nose drops/nose sprays? If yes, how do you use them?

Inhalers/Patches/Creams/Ointments/Injectables/Samples

- Do you use any inhalers? any medicated patches? medicated creams or ointments? any injectable medications (e.g. insulin)? For each If yes, how do you take _____? (name, strength, how often)
- Did your doctor give you any medication samples to try in the last few months?

Antibiotics

- Have you used any antibiotics in the past 3 months? If so, what are they?

Closing

- This concludes our interview. Thank you for your time. Do you have any questions?
- If you remember anything after our discussion please contact me to update the information?

Exit room, and wash hands. Proceed to document interaction in chart/file.

Note: Medical and Social History, if not specifically described in the chart/file, may need to be clarified with patient

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Medications: More Than Just Pills!!! Over-The-Counter Medicines

Prescription Medicines AND Over-The-Counter Medicines

These include anything you can only obtain with a doctor's order such as heart pills, inhalers, sleeping pills.*

*These include things that can be purchased at a pharmacy without an order from the doctor such as aspirin, Tylenol, laxatives, other bowel care products, **herbs** like garlic and Echinacea or **vitamins** and **minerals** like calcium, B12 or iron.



DON'T FORGET THESE TYPES OF MEDICATIONS



Prompt the patient to include medicines they take **every day** and also ones taken **sometimes** such as for a cold, stomachache or headache.



VON Perth-Huron

BEST POSSIBLE MEDICATION HISTORY & RECONCILIATION

NAME: _____
HEALTH CARD No: _____
PHARMACY: #1 _____ Ph: _____
#2 _____ Ph: _____

Allergy/Intolerance to Medication

- No known allergies
 Allergies, as follows: _____
 Weight: _____
 Estimate Actual
 Reaction: _____
 Height: _____
 Estimate Actual

Information Source List:

- Client Family/Caregiver Rx Vials Blister Packs Physician Rx Physician Samples Other
Type of Discrepancies (enter applicable # in the "Code" column below):
 A1 = Med'n is not currently prescribed A5 = Duplication of Med'n B1 = Dose different
 A2 = Client no longer taking med'n A6 = Drug Interaction C1 = Route Different
 A3 = OTC not taken as prescribed A& = Formulation incorrect or omitted D1 = Frequency different
 A4 = Allergy to prescribed Med'n E1 = Other (illegible orders)

	PROFESSIONAL COMPLETES	Signature	Date
Home Medications on admission to CCAC service (prescriptions, over-the-counter (OTC), herbals, patches, inhalers, eye drops, supplements, ointments, injectables, physician samples, chelation, nutraceuticals) - scheduled and PRN included	CCAC Case Manager: Medication, Dose, Route, Frequency, Ordering Physician		
	VON Nurse: Discrepancies / Time to complete: _____		
	Pharmacist: Doctor Alert (see attachment)		
	Physician: Reconciliation / Physician Orders		

SECTION 1: PRESCRIPTION MEDICATIONS ONLY

Medication	Dose (i.e. mg)	Route	Frequency	Ordering Physician (if known)	Discrepancies identified between home medication list and additional services (see codes above)		Dr. Alert (Pharm. Initials)	RECONCILIATION / PHYSICIAN ORDERS (Physician Use Only)		
					Code	Explanation		Continue	Stop	Comments/Change to (specify):

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