Medication Reconciliation

ISMP Canada Semi-Annual Report to CPSI

Safer Healthcare Now! Medication Reconciliation Intervention

April 2008 to September 2008

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Safer Healthcare Now!
ISMP Canada Semi-Annual Report
Medication Reconciliation Intervention
Key Results for Period April 2008 to December 2008

The Institute for Safe Medication Practices (ISMP) Canada is committed to the advancement of medication safety in all healthcare settings. ISMP Canada is appreciative of the Canadian Patient Safety Institute's (CPSI) vision and commitment to patient safety across Canada. The combined effort of ISMP Canada and CPSI supports Canadian healthcare facilities to implement Medication Reconciliation in acute, long term and home care settings through the *Safer Healthcare Now!* campaign.

ISMP Canada, with support from CPSI, has been able to facilitate the implementation of medication reconciliation in acute, long term and home care settings. Pilot implementations were conducted for both the Long-Term Care and home care settings to ensure the processes were successfully tested before disseminated to facilities across Canada.

For the time period of April 2008 to September 2008, a number of key deliverables were established between ISMP Canada and CPSI related to the *Safer Healthcare Now!* Medication Reconciliation intervention (acute care, long-term care and home care). ISMP Canada is pleased to present the following results for the contract deliverables.

Medication Reconciliation in Acute Care, Long-Term Care and Home Care

Summary of Major Accomplishments

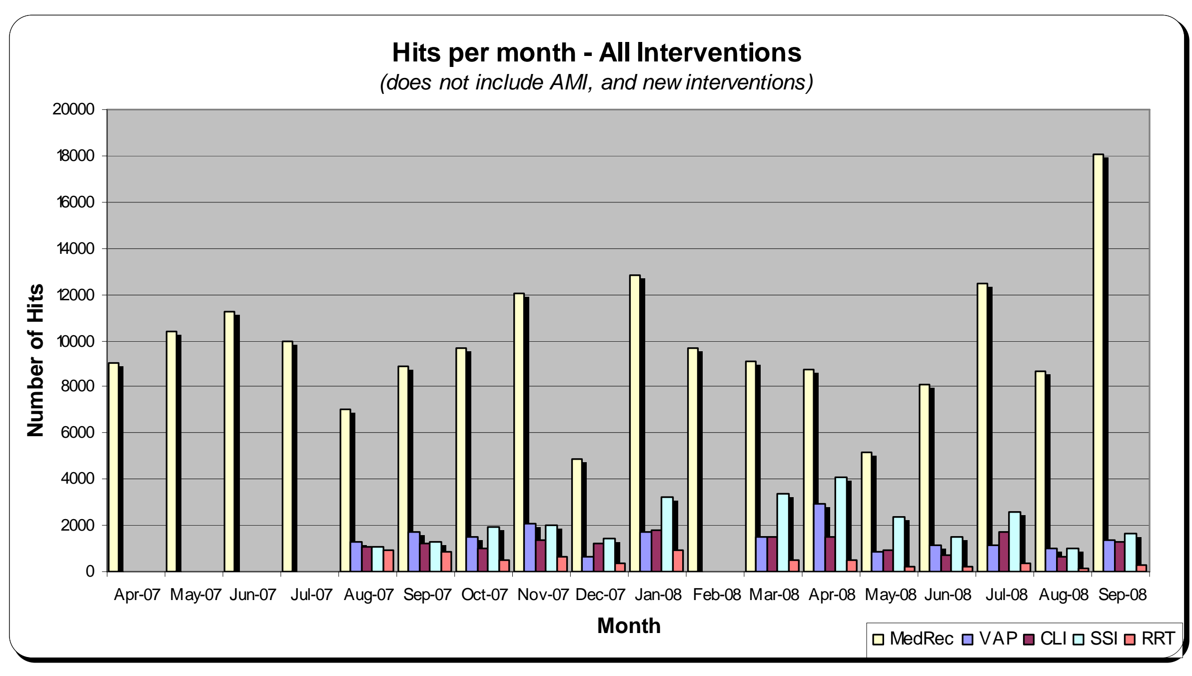
- A successful partnership and collaboration continues between ISMP Canada and CPSI and many additional partners to support *SHN!*. The Home Care Pilot Project involves a new partnership with VON Canada who is working closely with ISMP Canada to co-lead the pilot MedRec in the home care setting.
- Continued and consistent involvement in *SHN!* committee/working group meetings and partnership in planning, problem-solving, sharing with the *SHN!* network of organizations has allowed ISMP Canada and the medication reconciliation initiative to maintain its alignment with the national and strategic direction of *SHN!*. Committee/working groups include the SHN National Steering Committee, Education Resource Group, CPSW Advisory Group, Engaging Patients and Families in SHN Working Group, Western Collaborative, Atlantic LTC Collaborative and the Home Care Pilot Planning Group.
- The terms Best Possible Medication History, BPMH, Undocumented Intentional Discrepancies, Unintentional Discrepancies, Best Possible Medication Discharge Plan (BPMDP) are becoming a common language among healthcare practitioners and their meanings are understood. These terms are being used in Acute Care, LTC and Home Care to ensure consistency amongst healthcare providers. The language of unintentional discrepancies and BPMH is now being used internationally.
- Canadian teams are working together and helping one another by sharing information, forms, ideas, successes and failures strengthening the national campaign. This includes Long-Term Care (LTC) and home care teams learning from the work previously prepared by Acute Care.
- Medication reconciliation is a Required Organizational Practice (ROP) for **Accreditation Canada**. ISMP Canada continues to work closely with Accreditation Canada to develop and ensure the ROPs

are attainable. ISMP Canada also assists teams with interpretation of the standards as they relate to medication reconciliation and to assist them in meeting these standards.

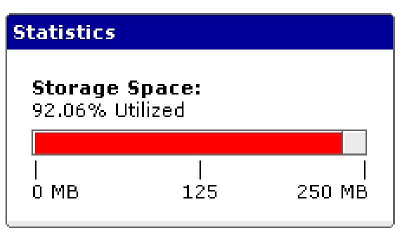
- In May and June of 2008 ISMP Canada participated in four interactive sessions with Accreditation Canada entitled 'Safer Medication Practices and Medication Reconciliation' in Vancouver, Toronto, Montreal and Halifax. These sessions focused on Accreditation Canada's new standards related to patient safety including the medication management standards. Discussions included: what is expected and how organizations can prepare to address the standards effectively. Surveyor experiences provided clarity on how organizations are interpreting ROPs in particular, the Medication Reconciliation ROPs. ISMP Canada led a presentation focussing on LTC Medication Reconciliation implementation and learning from medication reconciliation teams across the country.
- A national teleconference call with Accreditation Canada addressing expectations during site surveys and indicator data submission was completed in October 2008. This call discussed the ROPs and answered questions from teams regarding site surveyor expectations versus documented ROPs. There will also be a French version of this call scheduled in early 2009.

- The **National MedRec Faculty** has been expanded to include 2 doctors and 2 pharmacists from the Long-Term Care Sector (Appendix 1). This will enhance the knowledge base of the faculty and ensure GSK focus is consistent with the specified healthcare sector. A meeting by teleconference of all faculty members was conducted Oct 28, 2008 with the goal of having facility representation from across the country. Meeting objectives included discussion on:
  - synchronizing the SHN acute care measures with Accreditation Canada's measures for admission (% of patients receiving MedRec at admission);
  - recommendations to Accreditation Canada to ensure clarity on specific areas of ROPs and expectations;
  - feedback on the ambulatory care/community medication reconciliation framework/process;
  - response requirements by faculty members to questions on the CoP.

- The **MedRec Communities of Practice (CoP**) usage continues to grow. It is one of the most active in the campaign with 962 active members and between 5,155 and 18,067 hits per month between April and September 2008. This CoP sees teams across Canada, from different facility types and healthcare sectors, work together to help one another. This sharing of effective processes, successful strategies, information, forms, and ideas has helped to strengthen the national campaign. Teams across Canada appear to value the CoP and consistently utilize its resources.



- Current storage and usage statistics for the MedRec CoP are as follows:

Storage Space:	
Membership and Groups:	○ Total membership = 962 ○ Western Collaborative = 39 ○ MedRec in Home Care = 14 ○ Atlantic Node Collaborative = 4
Content:	○ Discussions: 708+ topics ○ Calendar: 7 calendars with 74 calendar entries ○ Tools & Resources: 606 files ○ Links: 115 links ○ Archives: 2 databases with a total of 68 records ○ Faculty Members: 9 faculty members ○ Note Board: 3 notes ○ Polls: 2 polls ○ Chat: 9 chat rooms

- ISMP Canada continues to work towards creating resources on the CoP for teams in both the English and French languages. This includes folders in the 'Tools and Resources' sections for French only items, translation of national teleconference call presentations and agendas, announcements and selected posters. All translated items are posted in both languages.

- ISMP Canada is involved in the training process for new intervention leads and coordinators on using and developing an intervention specific community of practice. This included presentations, training on an individual basis and being available to answer questions as required.

- An in-depth analysis of the MedRec CoP was conducted by Dr. Alejandro Montoya for ISMP Canada (Appendix 7). Dr. Montoya's objective was to evaluate the pattern of use looking not only at the quantity of discussion posts but also the relevancy and frequency.
  - Information posted on the CoP for the SHN Medication Reconciliation (MedRec) intervention was systematically evaluated. The number of topics, messages and frequency of access to the discussion groups for each topic was collected from intervention launch in 2006 until July 30th 2008 in order to identify the most important topics of discussion.

  - There were a total of 18 main folders which contained information covering 232 topics. These were accessed a total of 17,677 times and 708 messages were posted on discussion board over the analysis period. The majority of the topics are located in 5/18 main folders: "Acute Care, Audits & Measurement, Education and Marketing, Tools & Forms, and Staff Role in MedRec". From these 5 folders, 21 discussion topics represented 22.5% of the total activity.

  - Interesting findings determined that new teams sequentially access the same topics, and pose similar questions to seek solutions at similar intervals from the time of enrolment. As a result of this study plans are to create an FAQ document for new teams and submit an abstract to the CPSI national forum on patient safety as a research poster. The report conclusions/ recommendations indicate:
    - A systematic review of the communities of practice can help decision makers target the main concerns of teams;
    - Creating a process to share information related to the main topics of interest to new teams in advance could improve and accelerate the learning curve;
    - Using successful teams as mentors may increase the success of teams;
    - The analysis identified that only selected critical topics guided the foci of the discussion.
    - Similar retrospective analyses of established discussion boards may help future quality improvement teams by informing awareness of key topics to help direct new teams to proactively accelerate their learning curve to achieve success.
    - For intervention coordinators, it further serves to identify genuine team challenges and targets for enhancing campaign educational resources.

- ISMP Canada, along with a national working group, developed the foundation of a framework for a ***SHN!* mentorship program** which included documentation of all processes and procedures required to start a trial for the mentorship program. The work was continued in summer 2008 by a student at CPSI and in 2009 will involve testing with front-line teams across the country.

- **National teleconference calls** for MedRec are very well attended by healthcare practitioners across Canada. ISMP Canada's goal is to have one teleconference call per month with the exception of July, August and December. Calls may be geared towards a specific healthcare sector (acute care, long term care) or take on a more general nature with learning's applicable to all sectors.

  - ISMP Canada staff assisted in the preparation of a teleconference call guide for new intervention leads/coordinators and staff. This included a checklist (Appendix 2) of all steps involved in hosting successful teleconference calls.
  - The Home Care Pilot Project has monthly teleconference calls with members of the pilot project.
  - There were 4 national medication reconciliation calls for acute care and long-term care facilities between April 2008 and September 2008. These calls were very well attended with numbers of participants often reaching over 400 per call. The list of calls is in Appendix 2.
  - SHN introduced a new platform for national calls and ISMP Canada and MedRec were the first intervention to use this WebEx system. Due to time restrictions this required ISMP Canada staff to be involved in a 'crash course' training session, to create the steps for attendees and presenters to access and login to WebEx, to act as a help-desk to assist teams before, during and after the call. Good news, teams are beginning to feel comfortable using the system. The WebEx login procedures are in Appendix 2.

- ISMP Canada was involved in the organization and presentation of educational videos highlighting Canadian teams for both the 2008 LTC intervention launch and Canadian Patient Safety Week. These videos plus educational packages and videos created by Canadian teams are posted on the MedRec CoP and/or SHN website.
- The focus of **Canadian Patient Safety Week** (CPSW) in 2008 was medication reconciliation. As a result ISMP Canada spent considerable time assisting CPSI staff in recommending and preparing materials for Canadian teams enrolled in the initiative (Appendix 6). This included:
  - review of the MedRec CoP to identify tools and resources of benefit to teams;
  - creation of a presentation on the 'patient's role in medication reconciliation';
  - review of CPSW media material and provide feedback on appropriateness; identified and confirmed participation of team for media press conference (Vancouver Costal Health);
  - presentation by a multi-disciplinary panel discussing the topic 'Overcoming Challenges to Successfully Implement Medication Reconciliation – Crossing Boundaries Safely. This session was conducted at the University of Toronto and attended by over 80 healthcare practitioners during CPSW.
- Assistance in implementing the medication reconciliation process is an ongoing requirement for teams across Canada in different health care settings. As a result, ISMP Canada team members have been involved in or invited to speak at numerous educational sessions and conferences across the country. All nodes were visited and supported during the course of the year. These include QHN conferences, Atlantic Node road-trips, CSHP Pharmacy Professional Practice Conference (PPC), the Western Node Collaborative meetings, etc. See Appendix 3 for a list of some these workshops and conferences.
- The **SHN Learning Series** are well attended by teams involved in the SHN and ISMP Canada is responsible for the MedRec stream. For Learning Series 5 in Winnipeg we identified topics, recruited and supported speakers, interviewed teams, chaired sessions, as well as developed and delivered plenary sessions and workshops (Clinical Significance of Medication Reconciliation and BPMH Training). It also included organization of the LTC launch and development of a patient/family video (D. Denison).
- ISMP Canada contributed stories highlighting SHN teams and a National MedRec Faculty member in the Fall 2008 SHN! newsletter (Appendix 8).

- ISMP Canada partnered with the Manitoba Institute for Patient Safety on safety initiatives related to medication reconciliation and it's Safe to Ask Medication Card.
- ISMP Canada staff continues to promote the *Safer Healthcare Now!* campaign and the MedRec intervention at all conferences, presentations and booths we attend across the country. Displays and presentations of the MedRec initiative have been incorporated into the ISMP Canada conferences and Accreditation Canada workshops, both currently being presented across the country, the Ontario Hospital Association Health Achieve 2008 conference and all additional conferences to which we are invited.

As this intervention continues to be a priority among healthcare practitioners' world-wide, evidence is growing and shows that the MedRec process is working and being incorporated into daily practice by healthcare professionals. The medication reconciliation intervention is aimed .at decreasing medication discrepancies to support a reduction in the potential for Adverse Drug Events (ADEs).

"What Worked Well"

- Teleconference calls were well attended and people seem to look forward to them. These national calls profile Canadian teams and successes.
- CoP became a main venue for communication and sharing amongst teams. The CoP includes hands-on experience, proven processes, procedures and forms; gets questions answered and has high usage statistics. Storage space continues to be an issue resulting in requests for more space on an almost monthly basis.
- National intervention leadership for medication reconciliation supporting nodes and connecting and sharing the work of teams builds national capacity for the intervention. The understanding that we have gained is now being utilized to develop processes to implement medication reconciliation across the continuum into LTC and homecare.
- The Medication Reconciliation National Faculty are quite engaged, are willing to participate in teleconference calls, present at conferences and answer questions on the CoP when requested. The faculty appears to work better when there is a face-to-face meeting during the year. A face-to-face meeting helps to re-engage and reconnect members.
- The patient testimonial/ experience sharing video created for Learning Series 5 in which a patient's family member speaks about the significant impact of a medication reconciliation failure on a family has proven to be a valuable tool for teams.
- ISMP Canada assisted the Western Collaborative home care teams to create and test measures and is using the learning in the next project with VON Canada.
- Role playing skits were used in two nodes to demonstrate the medication reconciliation process and getting a BPMH.

Potential Areas for Improvement/ Growth

- Enhanced / optimized engagement of physicians, nurses and pharmacists to incorporate medication reconciliation into everyday practice consistently and in a sustained fashion.
- Strategies to support teams to effectively address the time commitment for sustained implementation medication reconciliation intervention across the system.
- Improved understanding of the complexity of effectively spreading across an organization.

- Enhanced implementation of medication reconciliation at transfer and discharge as teams move beyond the admission reconciliation interface.
- Addressing sustained and consistent measurement/ data submission
- Continued and enhanced leadership and support of medication reconciliation in Long-Term Care facilities and Home Care.
- Enhanced attention to SHN mentorship program for medication reconciliation to facilitate more experienced teams supporting new teams in a structured format.
- Addressing the synchronization challenges of various medication reconciliation measures and endpoints required by SHN, Accreditation Canada and various provincial quality organizations.
- Engagement of existing provincial and national organizations such as CMA, CSHP, CNA to support the implementation and expectation of, MedRec across the system.

Key Next Steps

- Continue to support Canadian medication reconciliation teams by planning, attending and speaking at conferences, workshops held by *SHN!* and other Canadian associations. Dr. Olavo Fernandes from the University Health Network in Toronto joined ISMP Canada on a secondment in July 2008 and as a result has enhanced our capacity to respond to requests for support and presentations, and strategically plan for medication reconciliation across Canada. He is also assisting with the WHO High Fives project and MedRec in Home Care Pilot.
- Continue to reorganize the CoP to include sections for Acute Care, Long Term Care, Home Care, and Community Pharmacy. Having one central CoP for Medication Reconciliation has seen an increase of sharing amongst teams regardless of their facility type. Continue to maintain and monitor the CoP to ensure all material within is organized, content is appropriate and questions are answered in a timely manner.
- Continue to hold national teleconference calls, one per month with the exception of July, August and December. Topics for each call will be dependent on the needs of the teams. Suggested topics and schedule is in Appendix 2.
- Continue to inform administrators, leaders and team members about the realistic resource commitment needed to implement and sustain medication reconciliation, which continues to be a priority area.
- Engage leadership – continue to support greater CEO and senior leader engagement in MedRec, *SHN!* Activities, conferences etc
- Continue to offer face-to-face meetings with teams, especially in the Long-term Care sector (one planned January 09 in Ontario).
- Facilitate faculty involvement. A yearly face-to-face meeting would be very beneficial, but if not feasible, a biannual teleconference calls will continue.
- Involve patients in supporting medication reconciliation. The patient is the only constant participant across the system and is critical to the success of this major system change. A communication strategy to reach patients and families via public education continues in 2009 through CPSW.
- Contribute to seamless care across *all* healthcare settings via medication reconciliation. Collaboration with community pharmacists, Long-Term Care facilities and homecare is mandatory to ensure appropriate medication monitoring is present across all transition points. ISMP Canada is currently working on a separate project with community pharmacists and acute care hospitals to

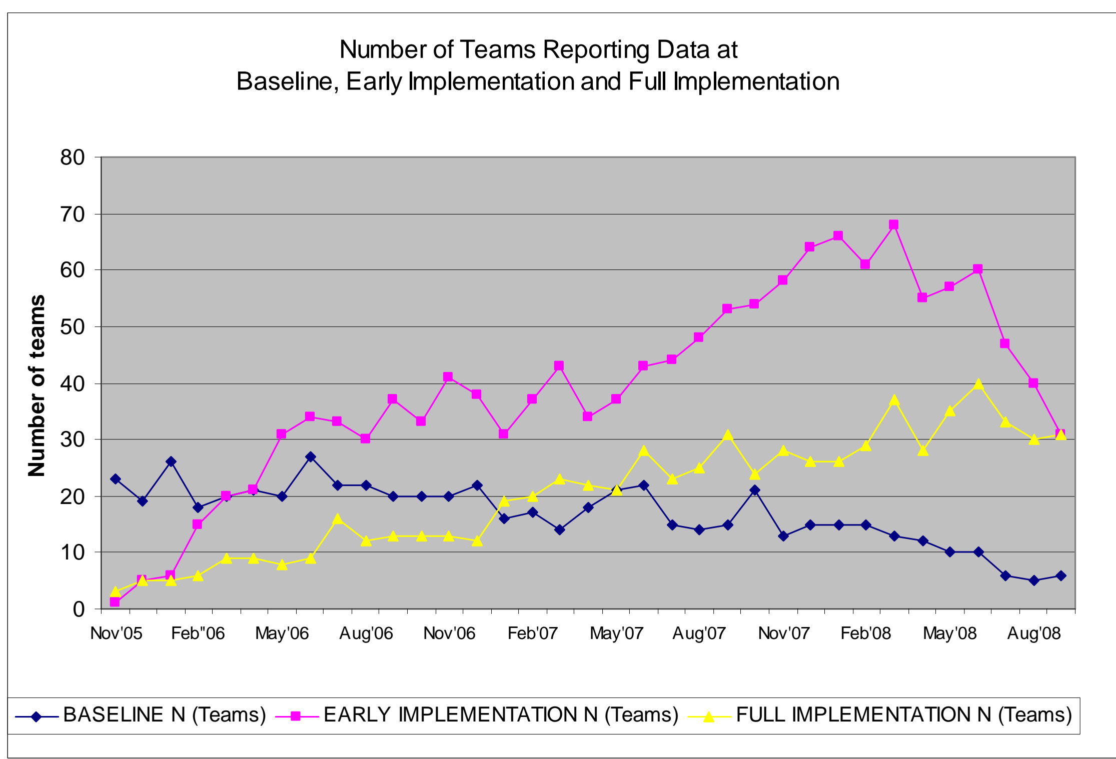
incorporate the Ontario MedsCheck program into daily practice. This will enhance the effectiveness of medication reconciliation in acute, LTC and home care settings in Ontario.

- Electronic systems that simplify the medication reconciliation process are required and ISMP Canada has a leader in this regard in Olavo Fernandes.
- Participation in medication reconciliation at High 5's – a WHO/ Joint Commission International effort.

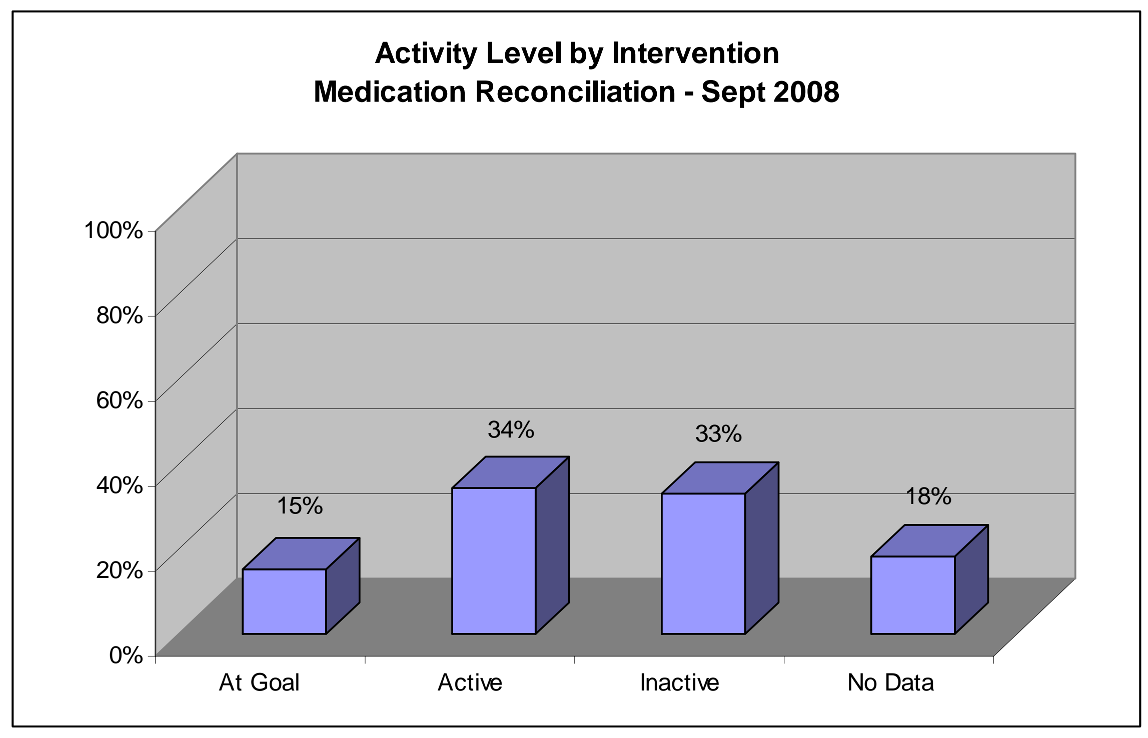
Medication Reconciliation in Acute Care

Major Accomplishments

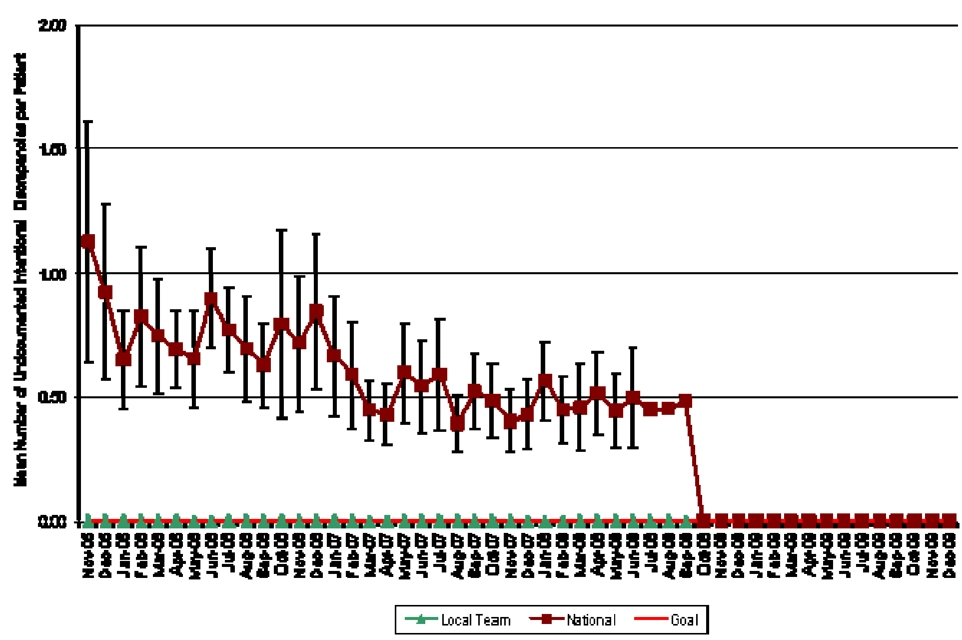
- Worked with the Canadian Society of Hospital Pharmacists (CSHP) to develop a position statement and on medication reconciliation tol be approved by CSHP Council in December 2008.
- The medication reconciliation Communities of Practice (CoP) is one of the most active in the campaign with 932 active members and between 7,000 and 12,803 hits per month. This CoP has seen teams across Canada work together and assist one another, sharing information, forms, and ideas and as a result has helped to strengthen the national campaign. ISMP Canada continues to monitor the MedRec CoP, continually populating it with new items related to medication reconciliation. Teams across Canada appear to value the CoP. ISMP Canada is also creating a bilingual CoP for some key materials.
- The ISMP Canada team identifies priority issues and responses, tools and approaches that work, resources and training, roles that are effective and common answers to questions for Canadian teams.
- ISMP Canada, along with the National MedRec Faculty revised the one-page summary of MedRec to include transfer and discharge. This has assisted teams with an easy-to-read overview of the process involved for medication reconciliation (Appendix 4) and is available in both English and French.
- The number of teams enrolled in the *SHN!* MedRec in Acute Care intervention has increased from 210 – 374 over the period of April 2007 – March 2008. This total includes 333 Acute Care teams and 16 Paediatric teams and 15 Home Care teams.
- As the months progress the trend for teams reporting baseline data will decrease as teams move into the early implementation stage. We are beginning to see a decrease occur in teams reporting in the early implementation stage as they progress to full implementation.

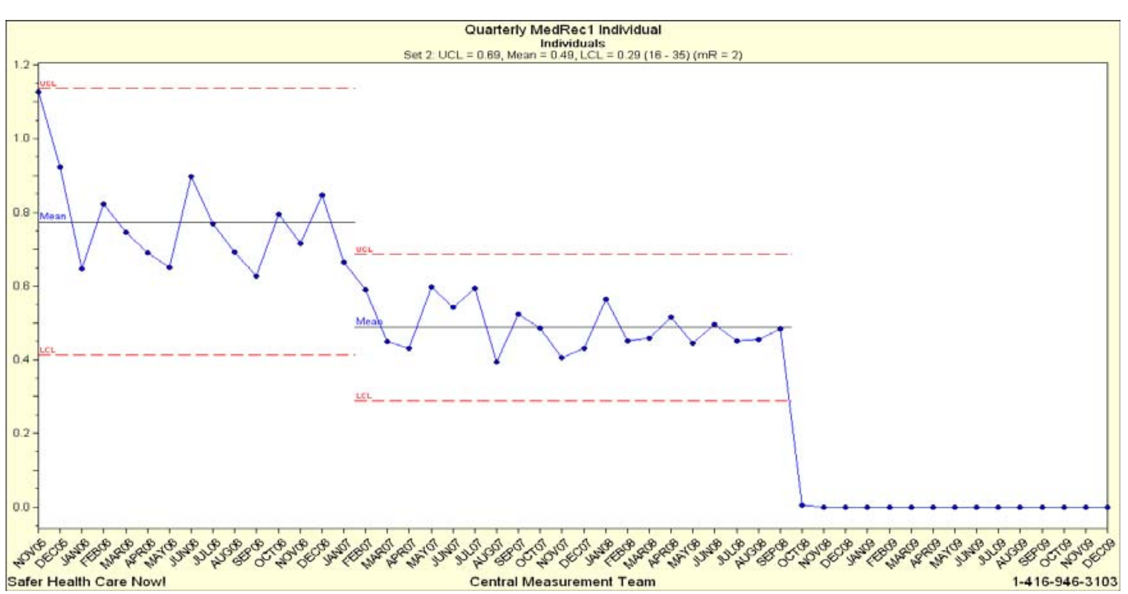


- The activity level of teams submitting data shows that 41.9% of teams enrolled in MedRec are actively reporting data. The 26.9% of teams who have not submitted data in the last 6 months and are considered 'inactive'. The decrease in active teams is also reflective to the number of sites that may be amalgamating and their data is now rolled into one.



- *<u>Undocumented Intentional</u> Discrepancies continue to* decrease. This data is for teams in the early or full implementation stage and who are submitting data to the Central Measurement Team.



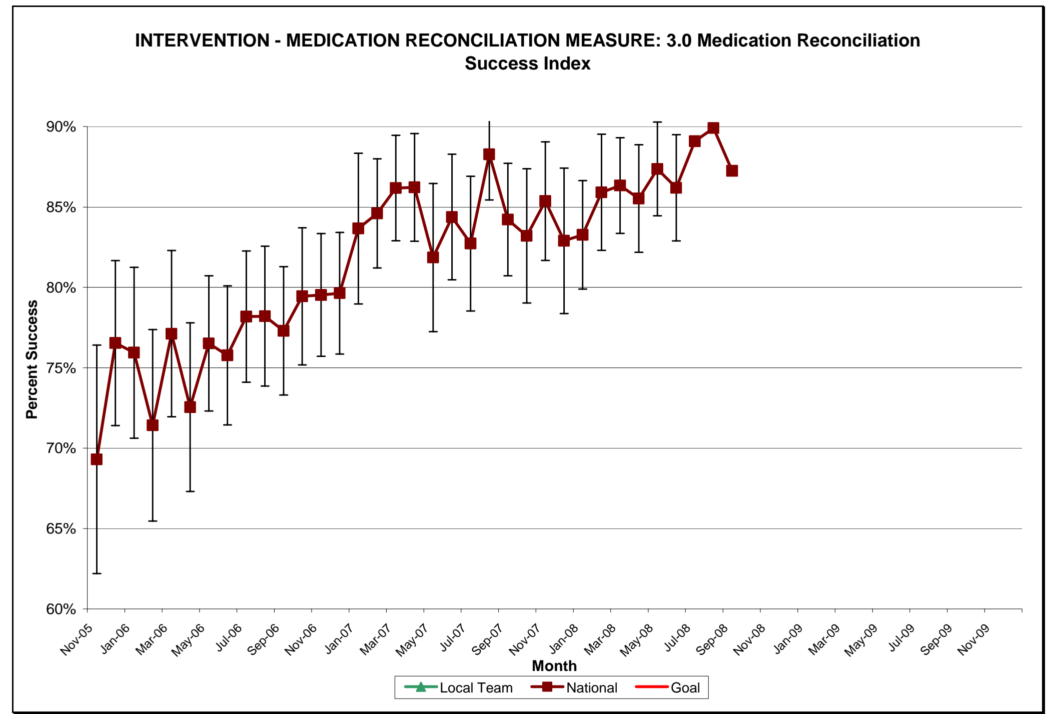


Control Chart MedRec1 Undocumented Intentional Discrepancies (above): At the beginning of the intervention there was a high mean number of undocumented intentional discrepancies and a large variation in results. Around January of 2007 when there were concerted efforts to influence medication reconciliation implementation, for example the Western Node Collaborative, there was a significant shift in the mean number of undocumented intentional discrepancies and a real change in the amount of variation. This can be interpreted in different ways. It may mean that we need to plan another concerted effort to reduce the discrepancies or it may mean that it is only possible to reduce the discrepancies to about one in every two patients and that there will always be these type of discrepancies.

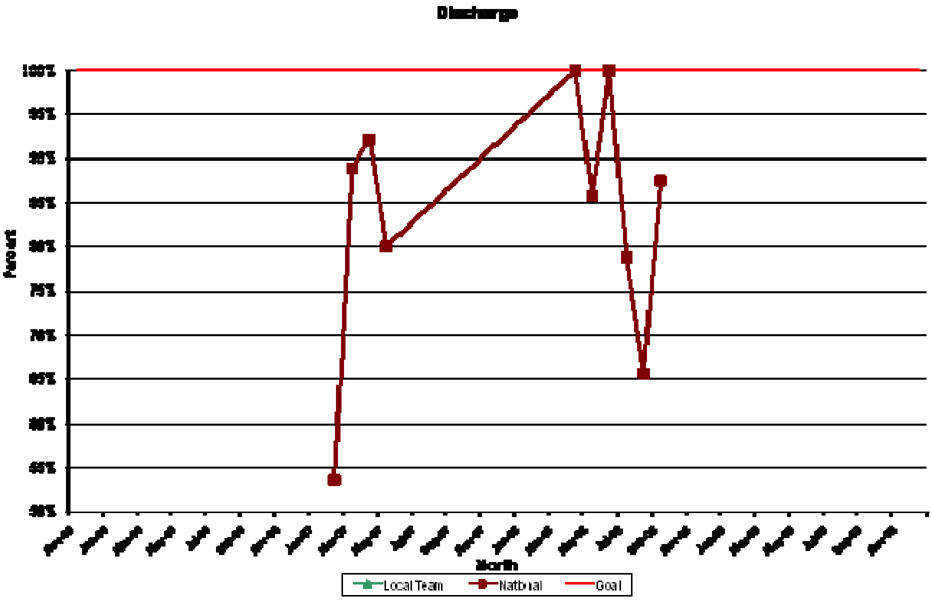
- *Unintentional Discrepancies* are decreasing and this illustrates shows that more ADEs are being caught and that MedRec is working.

Control Chart MedRec2: Unintentional Discrepancies (above: As in the above control chart, the unintentional discrepancies showed a very real shift in mid 2007, and at the same time the upper and lower control limits became very narrow. In the second part of the chart the variation was greatly reduced, showing much tighter and improved results. The mean shifted in 2007 and appears to be coming down but the next few months will be needed in order to know whether it is consistent over time.

- The MedRec Success Index indicates that Canadian teams are much more successful at reducing discrepancies as time goes on.



- Teams are starting to implement MedRec at discharge with the goal is that 100% of patients to be reconciled at discharge. This is a slow process as teams must first implement MedRec at admission before they can implement it at discharge. There is wide variation in results and the teams that are reaching goal will be invited to assist teams that are just getting started.



- The number of teams who have implemented or started to implement MedRec at admission is close to 100 of those submitting data. Teams implementing MedRec at transfer and discharge is low due to teams wanting to have the MedRec process working well at admission and spread to all areas of

their facility before starting on the next phase. Accreditation Canada is requiring hospitals to have medication reconciliation implemented at internal transfer and discharge interfaces of care, so we predict an increase in teams participating in these interfaces.

- The quarterly report data shows an approximate **reduction of 60% in mean number of discrepancies. This has the potential to reduce ADE's**. About 25-35% of teams report quarterly according to the quarterly reports.

Key Next Steps Planned

- Continue to educate teams about the core principles about medication reconciliation including the fact that it is not simply about "forms: but rather about an effective communication and processes to support safe and accurate patient medication information transfer at health care interfaces.
- Continue to identify and address issues related to medication reconciliation to support teams. If necessary, review and revise the GSK for Acute Care to ensure information is up-to-date and correct. All revisions, if necessary, to the GSK will involve the MedRec National Faculty and teams as appropriate. Under consideration is incorporation of updated Accreditation Canada ROPs, potential revision of medication reconciliation definition, and measures. The Oct 2008 National Faculty call has begun to address these issues.
- Consideration of including the 'appropriateness' of medications as part of the medication reconciliation definition (or at least not excluding an appropriateness assessment as part of the medication reconciliation process).
- Enhanced team participation for medication reconciliation processes at transfer and discharge interfaces along with ambulatory care clinics.
- Work with National Faculty to provide input on :
    - Consideration of synchronization of SHN acute care measures with Accreditation Canada measures Admission MedRec: % of patients receiving MedRec at admission (to align with Accreditation Canada Requirements);
    - Feedback on Ambulatory care/ community medication reconciliation framework/ process discussion;
    - Consideration for SHN MedRec Faculty to provide recommendations to Accreditation Canada for Clarity on specific areas of ROPs and expectations- working group formed on call to meet in January to draft formal recommendations.

Medication Reconciliation in Long Term Care

ISMP Canada prepared the Getting Started Kit for Medication Reconciliation in Long-Term Care with input from the national faculty and clinical practitioners who work in the Long-Term Care (LTC) sector across Canada. The kit was released to national teams at the Learning Series 5 in Winnipeg on April 2, 2008.

Although the kit uses the same concepts and terminology as the Acute Care GSK it was determined early on that these are two very different work environments. In general, long-term care facilities provide living accommodation for people who require on-site delivery of 24-hour, 7 days a week supervised care, including professional health services, high levels of personal care and services. They accommodate varying health needs with on-site supervision for personal safety.[1]

[1] Adapted from: Health Canada. What is Long-Term Facilities-Based Care? [cited 18Dec2007] Available from: http://www.hc-sc.gc.ca/hcs-sss/home-domicile/longdur/index_e.htm l.

Long-term care facilities have a higher resident to nurse or RPN/LPN ratio and on-site pharmacist/physician services that vary from daily to weekly or monthly basis. The acuity of long-term care residents, while usually less than acute care patients, has been increasing steadily, but long-term care residents are typically in more stable condition, except in specialized programs. Therefore, changes to a resident's care or medication regimen occur less frequently than in acute care. Residents in long-term care are often prescribed multiple medications and are usually serviced by a community or in-house pharmacy with multi-dose packaging.

Because of the above differences and needs in LTC, ISMP Canada recruited new members for the national medication reconciliation faculty to ensure clinical practitioners who work within the Long-Term Care sector were included. It was also very important to have the GSK reviewed by clinical experts working in the LTC sector. As a result, the kit was reviewed over a period of 6 months by 20 practitioners from across Canada.

Major Accomplishments

- Continue to recruit clinical experts from the Long-Term Care (LTC) sector to join the medication reconciliation faculty (Appendix 1). This group now include experts from the Acute Care and Long-Term Care sectors and continues to be a valuable resource to Canadian teams.
- Launched the MedRec in LTC Getting Started Kit at the Learning Series 5 in Winnipeg MB on April 2, 2008. This kit is available in both French and English.
- Revised the Measurements for medication reconciliation in Long-Term Care to include the 'Mean number of unintentional discrepancies', the 'Mean number of undocumented intentional discrepancies' and the 'Percentage of Residents Reconciled on admission'. It is too early to see the impact of MedRec in LTC as teams are just starting to collect baseline data.
- Contacted all provincial Long-Term Care associations across Canada. These associations agreed to distribute the announcement about the LTC initiative and encourage teams to join the campaign. Appendix 5 contains the launch announcement. A teleconference call with provincial associations was held in June 2008. Although attendance was low those on the call were enthusiastic about the initiative and are working on ways to begin the process within their homes.
- Revised the Communities of Practice to accommodate Long Term Care. This revision is ongoing and will continue as required. It was decided to use the existing medication reconciliation CoP for LTC as this will give them access to forms, tools, education packages already created and used by acute care facilities. This will help to decrease the LTC developmental workload.
- Actively participate in the Communities of Practice website, answering various questions about medication reconciliation from Long-term Care facilities.
- Promotion and engagement of Directors/Pharmacists from various long-term care facilities regarding the Medication reconciliation implementation and the *Safer Healthcare Now!* Campaign at ISMP Canada conferences and booths.
- Contact via phone contact with various pharmacists regarding questions pertaining to medication reconciliation implementation in their long-term care facility. Most of the discussions were regarding measurement and process.
- Assisted Long-Term Care facilities interested in computerized medication reconciliation connect with and arrange tours with advance practice institutions that had already done so.
- To date 71 long-term care teams have joined the intervention. We anticipate this will increase in the next year particularly with a LTC conference in Toronto in January 2009.

Key Next Steps Planned

- Teleconference calls for LTC will be planned and scheduled. At times some calls may be applicable to both LTC and Acute Care. The proposed schedule can be found in Appendix 2.
- Further development and sharing of processes for and measurement of medication reconciliation across the continuum of care – from acute care to homecare, nursing homes, community practice, etc. will be reviewed and defined as applicable.
- Continue to support teams through face-to-face visits, telephone and on the Community of Practice
- Increased sharing of team successes and processes that work across all sectors in the care continuum.
- Participation in LTC Collaborative in the Atlantic Node.

Medication Reconciliation in Home Care

The home care setting is a practice setting with unique medication information and patient safety challenges as it is centred around a high risk population with complex medication issues and drug related problems. Although, medication reconciliation is required by Accreditation Canada standards, best practices as well as optimal sustainable models are not clearly defined.

The SHN Home Care Medication Reconciliation Pilot is jointly led by ISMP Canada & VON Canada and has a Pilot Advisory Steering Committee (Appendix 9). It was designed to take into full consideration the varied organizational structures across Canada as well as to Incorporate and build on learning from 2007 Western Node homecare pilot. Key partners have included: VON Canada, ISMP Canada, the SHN Secretariat – CPSI, all SHN nodes as well as the Western Node Collaborative medication reconciliation homecare teams.

Objectives of the SHN Home Care Medication Reconciliation Pilot

- Introduce medication reconciliation to a broader ambulatory/ community based home care audience
- Design and test strategies for implementation of medication reconciliation in home care across Canada
- Validate the key steps of the process for front-line clinicians and teams in this unique setting
- Measure actual patient results
- Develop a structured and sustainable process for home care

A process for identifying "medication discrepancies that require clarification" in the home care setting was developed with input from front-line clinicians.

Additional aims of the medication reconciliation framework in homecare include a structured process to:

- Clarify medications patient is actually taking (BPMH)
- Identify and resolve discrepancies between what providers perceive client is taking and BPMH
- Create and communicate clear and accurate medication lists to patients, families and homecare clinicians
- Support the reduction of potential ADE's

Teams have begun to develop and test reconciliation processes in their environment. The learning is documented and will be shared for consideration of greater homecare implementation in Canada.

Major Accomplishments

There are a total of 15 teams involved in the pilot (Appendix 9), covering Canada from coast to coast. Teams were selected according to the following criteria:

- Expressed interest
- Senior leadership support
- Must agree to guidelines set out by steering committee
- Basic understanding of quality improvement
- Commitment to timelines, data submission, conference calls etc
- Pan Canadian representation

Node/Campaign	Teams
Atlantic	5
Quebec	0
Ontario	7
Western	3
TOTAL	15

- Biweekly planning meetings have been held since prior to July 2008 involving ISMP/ VON/ Node Leaders/ Central Measurement Team
- Comprehensive implementation toolkit circulated to all teams. This includes a summary of team commitment to the project, criteria for patient selection, sample charters, summary of key dates, background information, *SHN!* framework for Medication Reconciliation in Home Care; risk assessment tool samples, measurement descriptions, data collection sheets/ tools with samples, workflows, measurement worksheets, quick reference guides; collection of teleconference PowerPoint presentations; BPMH interview guide/ top 10 tips for conducting a BPMH, and PDSA forms.
- Target for first team data submission is December 2008
- Measures – core measures finalized in September with one discrepancy categorization measure
  1) Percentage of Eligible Clients with a Best Possible Medication History (BPMH) conducted by a Home Care clinician
  2) Time to complete Best Possible Medication History (BPMH) in Home Care
  3) Percentage of Eligible clients with at least one discrepancy that requires clarification
  4) Classification or characterization of actual discrepancies that require clarification
- ISMP additional roles
  - Co-lead planning meetings
  - Review of team information packages/ organization letters
    - Face to Face Meeting with VON Canada to facilitate pilot launch/ optimization (Oct 2008)

Key Next Steps Planned

Three national teleconferences calls are planned for all teams in the pilot. ISMP Canada will co-host these calls with VON Canada

a) October 2009: Process / Framework for Medication reconciliation; education on how to do a comprehensive BPMH; stepwise approach
b) November 2009: Measurement definitions; Measurement worksheets Implementation toolkit, CoP tool introduction
c) December 2009: Western Node Front line teams sharing their experience and open mike.

Financial Report

ISMP CANADA

Summary of Costs for CPSI Grant
for the six month period ending September 30, 2008

	Budget	Actual	Variance
Personnel	89,500	90,093	(593)
Translation	3,750	3,000	750
Travel	2,500	1,774	726
Supplies	250	506	(256)
	96,000	**95,373**	**627**

Report prepared by Brenda Carthy, Project Coordinator, Marg Colquhoun, National Intervention Lead and Olavo Fernandes, Safety Specialist, ISMP Canada. *Submitted December 22, 2008.*

Appendix 1

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

ISMP Canada Annual Report: Medication Reconciliation Intervention, April 2007 to March 2008

National Medication Reconciliation Faculty

Medication Reconciliation National Faculty

Province	Name	Facility	Position	Area of Expertise
AB	Hilary Adams		Quality Improvement Physician, Department of Family Medicine	Quality & Risk, Physician
ON	Chaim Bell	University of Toronto, St Michaels Hospital	Assistant Professor of Medicine and Health Policy, Management, & Evaluation, Staff General Internist	LTC & Physician
ON	Margaret Colquhoun	ISMP Canada	ISMP Canada Project Leader, Medication Reconciliation National Lead	SHN Intervention Lead
ON	Patti Cornish	Sunnybrook Health Sciences Centre	Pharmacist, Patient Safety Service	Pharmacy
NS	Paula Creighton	Nova Scotia Health	Geriatric Physician	LTC & Physician
NFLD	Scott Edwards	Eastern Health	Clinical Pharmacotherapy Specialist	Pharmacy & Research
ON	Edward E. Etchells	Sunnybrook Health Sciences Centre	Director, Patient Safety Service	Physician, Quality, Research
ON	Olavo Fernandes	University Health Network, ISMP Canada	Pharmacy Practice Leader	Pharmacy, Research
ON	Virginia Flintoft	Safer Healthcare Now! Central Measurement Team	Project Manager	measurement
MB	Nick Honcharik	Winnipeg Regional Health Authority	Regional Pharmacy Manager, Professional Practice Development, Clinical Pharmacist	Pharmacy
AB	Kathy James Fairbairn	Good Samaritan Society	Consultant Pharmacist	LTC & Pharmacy
ON	James Lam	Providence Healthcare	Director, Pharmacy Services	LTC & Pharmacy
NS	Neil J. MacKinnon	Dalhousie University	Associate Director for Research & Associate Professor, College of Pharmacy, Associate Professor, School of Health Services Administration and Department of Community Health and Epidemiology	Pharmacy, Research
AB	Peter Norton	University of Calgary Medical Centre	Professor and Head of the Department of Family Medicine, Faculty of Medicine	Quality, physician, family practice
BC	Fruzsina Pataky	VCH-PHC Regional Pharmacy Services	Medication Safety Coordinator	Pharmacy
AB	Judy Schoen	Foothills Medical Centre, Calgary Health Region,	Pharmacy Patient Care Manager	Pharmacy
ON	Kim Streitenberger	The Hospital for Sick Children	Quality Analyst, Quality & Risk Management	Nursing, Quality, Paediatrics

Appendix 2

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

ISMP Canada Annual Report: Medication Reconciliation Intervention, April 2007 to March 2008

National Medication Reconciliation Teleconference Calls

National Medication Reconciliation Teleconference Calls

Wed, Apr 16, 2008 12:00 PM to 1:00 PM	**Getting Started with MedRec in LTC** To discuss the new Getting Started Kit for MedRec in Long Term Care. This teleconference call will be of interest to all MedRec teams in Long-Term Care facilities. Acute Care facilities are also encouraged to join in. You will learn about this new exciting initiative and find out how you can help make MedRec work across the continuum of care.
Wed, May 14, 2008 12:00 PM to 1:00 PM	**Finding MIMO - MedRec in LTC** Fruzsina Pataky, National MedRec Faculty member and Medication Safety Coordinator at Providence Health Care in BC will talk about finding MIMO (Moving in Medication Orders). in long term care. The MIMO is remotely printed to the receiving LTC facility for residents moving in or returning from an acute care site. It lists all the medications resident was receiving on discharge.
Wed, Jun 18, 2008 12:00 PM to 1:00 PM	**"Creating an Education Package for BPMH Training" - Who needs to know what?** This national teleconference call is intended for all medication reconciliation teams in Long-Term Care and Acute Care. Linda Cawthorn is a project coordinator for MedRec implementation in suburban rural communities in the Capital Health region of Alberta. Linda's presentation will identify strategies she has used to successfully train staff on how to get a BPMH.
Wed, Sep 17, 2008 12:00 PM to 1:00 PM	**Fraser Health's online learning module for MedRec at Admission through both the Emergency Department and the Pre-Admission Clinic** This webinar will be of benefit to all teams in acute care and Long-Term Care settings. It will be broadcast via the web and phone in combinations so a computer terminal will be required. Janice Munroe will demonstrate their online learning module for MedRec at Admission through both the Emergency Department and the Pre-Admission Clinic'. We will be doing this session as a webinar to better demonstrate the Fraser Health's module. A computer and phone will both be used.

Note: All times = Eastern Standard Time

Medication Reconciliation Teleconferences by Node

CAPHC Calls

Thu, Jun 12, 2008 12:00 PM to 2:00 PM	The CAPHC-SHN Paediatric Medication Reconciliation Collaborative Seventh Interactive Teleconference MedRec Reality Check - Moving from intervention to practice This teleconference will include: • An overview of Required Organizational Practices for safe management of medications • Accreditation Canada surveyor observations – the challenges and success factors of MedRec • Update on Paediatric Implementation Data – moving from intervention to practice • Using your data to improve your MedRec process – determining “Tests of Change” • Rapid fires from paediatric teams on BPMH education

Western Node Calls

Tue, Aug 19, 2008 12:00 PM to 1:00 PM	MedRec (Acute Care) Western Node Connection Call
Tue, Aug 19, 2008 2:00 PM to 3:00 PM	MedRec (LTC) Western Node Connection Call

National MedRec Calls - Proposed Schedule

Proposed National Teleconference Calls September 2008 – March 2009

Proposed Date	Proposed Topic	Proposed Speaker
October 8, 2008	Getting Started with the Quality Improvement Model	Dannie Currie
October 22, 2008	Accreditation Canada's Expectations for MedRec	Jennifer Langley
November 19, 2008	Pharmacist Directed Medication Reconciliation Plus in a LTC facility - MedRec Spread - Acute Care, Sharing Experiences and Lessons Learned	Don Kuntz
January 21, 2009	How can pharmacy students effectively support sustained medication reconciliation?	
February 18, 2009	TBD	TDB
March 18, 2009	TBD	TDB

Note: TBD indicates topics and speakers are open dependent on needs of teams

Additional Potential Topics
May pertain to a specific sector or combined and used as required

Proposed Topic	Proposed Speaker
Overcoming Barriers with MedRec	Doris Nessim, North York General Hospital
MedRec in the Emergency Department – Our Success Tips	Nancy Kay, Chatham-Kent, ON or TBD
MedRec at Discharge – Our Success Tips	Olavo Fernandes and other teams TBD
Accreditation Canada Expectations for MedRec in Acute Care French version	Accreditation Canada Representative
Implementing MedRec in our Long-term Care facility	Kathy James-Fairbairn

Home Care Proposed Calls

October 2009	Process / Framework for Medication reconciliation; education on how to do a comprehensive BPMH; stepwise approach
November 2009	Measurement definitions; Measurement worksheets Implementation toolkit, CoP tool introduction
December 2009	Western Node Front line teams sharing their experience and open mike

Coordinating a National Teleconference Call

This was developed prior to WebEx however most steps still applicable.

Before the Call

The role of the Intervention Lead or Assistant or SIA:

- ❑ Determine Topic, Speaker and Date and coordinate (line up speaker).
- ❑ Determine Objectives and Create Agenda using the link below. Include fields as indicated in the file and send to Angela Thiessen angela.thiessen@hqca.ca . *Angela will obtain a dial-in number, attach a time zone map, send to the CPSI Web Coordinator for posting on the SHN site and post on the applicable CoP. Angela will also give you a 'speakers dial in line'.* https://communities.saferhealthcarenow.ca/edres?go=1855580
- ❑ Create CoP Calendar entry for call. Link to/Attach agenda and any other applicable information.
- ❑ Send an email broadcast through Outlook or CoP to all teams enrolled in the intervention. Include the date and time of call and attach agenda. *An Email broadcast via the CoP is an excellent way to reach teams and is available through the 'administrator' tab on the CoP.*
- ❑ Post the presentation and handouts on the CoP at least 2-3 days prior to call. If possible create handouts in PDF format as 1 slide per page.
- ❑ 2-3 days prior to call send a 'Reminder' broadcast email and attach agenda and presentation handouts. Do not attach actual presentation unless the file size is small 1-2 MB max.

During the Call

- ❑ Have the facilitator and speaker(s) dial in approximately 15 minutes prior to the call. Use this time to organize how the call will be executed.
- ❑ Talk with the operator also at this time and let them know what you will like.

After the Call

- ❑ Post link to the audio of the call on the CoP. Make sure you link the audio to the presentation and any additional material as appropriate
- ❑ Upload any files from the speaker onto CoP as appropriate. Link these files to the audio link and also any other tools currently present on the CoP which are related to the topic.

Lessons Learned

- ❑ Schedule times to best accommodate healthcare practitioner work schedules.
- ❑ Remember time zone differences (times before 9 am PT are often not well attended)
- ❑ Limit presentation to 25-35 minutes to allow for Q&A session
- ❑ Have call operator assisted (include this request in email to Angela)
- ❑ Have call recorded (include this request in email to Angela
- ❑ Teams love to be selected to present on the national calls. It is an honour to them to be chosen so don't be afraid to ask.
- ❑ When selecting speaker ensure speaker has good presentation skills and topic will be interesting to teams. Good rule of thumb to review speaker's presentation 1 week prior to ensure the content is appropriate.
- ❑ Have speaker number slides so they can be referred to during the presentation
- ❑ Have operator say the title of the call and explain how call will proceed – 25-35 minute presentation followed by Q&A. *Number of questions per person/site depends on number of questions in the queue, number of sites on the call, etc. Generally one question per site seems to work best.*
- ❑ Facilitator role is to introduce the topic and the speaker at the beginning of the call; assist in answering questions as appropriate; close the call at the end, thank speaker, etc. This is an excellent time to make announcements of upcoming events, promote CoP, etc. You have a large audience so make the most of it.
- ❑ Put schedule of calls into CoP calendar as soon as possible. The more advance notice you can give – the more successful the calls.

WebEx Agenda – revised to incorporate steps for webinars

Date:	**Date**
Time:	**9:00 a.m. – 10:00 a.m. (PDT or PST)** **10:00 a.m. – 11:00 a.m. (MDT or MST)** **11:00 a.m. – 12:00 p.m. (Saskatchewan)** **11:00 a.m. – 12:00 p.m. (CDT or CST)** **12:00 p.m. – 1:00 p.m. (EDT or EST)** **1:00 p.m. – 2:00 p.m. (ADT or AST)** **1:30 p.m. – 2:30 p.m. (NDT or NST)**
Sponsor:	Canadian Patient Safety Institute
Guest Speakers:	**speaker name,** position
Facilitator:	**facilitator name,** *position*
Purpose of the call:	1-2 lines

For those of you unable to join the call we are planning to post a recording at the www.saferhealthcarenow.ca website for your review.

This is a Webinar – a computer terminal and telephone connection will both be required. *Please ensure you are connected to the session on your computer before dialing the phone number. Attendees can join the call 10 minutes prior to the start time.*

Before the Session

Verify your computer has the correct version of the WebEx software. If you have previously downloaded the software this will not be required again.

1. Open a web browser.
2. https://cpsi-icsp.webex.com/ec0600l/downloadUrl.do?url=https://cpsi-icsp.webex.com:443/client/T26L/atecie.msi

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To Join the Session

Note: please login to the computer using the link (step 2) before dialling the teleconference number

1. Open a web browser.
2. Go to https://cpsi-icsp.webex.com/cpsi-icsp/onstage/g.php?d=960043252&t=a
3. Enter your name and email address.
4. Click ***Join now***.
5. Follow the on-screen instructions to join the teleconference. This will pop up on your computer screen.

   Dial the number 1-866-699-3239
   (*operator will ask you to input the event number and attendee number all followed by the # sign - these are at the bottom of the pop up screen*)

   Input Event No: 960 043 252

   Input Attendee No: (given individually)

Support Phone Numbers

If you are having problems go to http://support.webex.com/support/phone-numbers.html or call 1-866-229-3239.

Appendix
3

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

ISMP Canada Annual Report: Medication Reconciliation Intervention, April 2007 to March 2008

National Conference Speaking Engagements

National Conference Speaking Engagements & Site Visits

Apr 01 - Apr 02, 2008	Learning Series 5 - Building Momentum for the Future: Winnipeg, MB
April 14, 2008	Ontario Long Term Care Association Conference
May 1 & 2, 2008	Ontario Trailblazers/ QHN MedRec Conference
May 8, 2008	ISMP Canada Conference for LTC – medication reconciliation presented and booth contained SHN! MedRec brochures, announcements, posters, etc.
May 12, 2008	Full day MedRec conference in Toronto
May 14, 2008	CCHSA Conference – Medication Reconciliation and Accreditation Canada Standards – Toronto
May 28, 2008	CCHSA Conference – Medication Reconciliation and Accreditation Canada Standards – Vancouver
June 12, 2008	CCHSA Conference – Medication Reconciliation and Accreditation Canada Standards – Halifax
June 17, 2008	CCHSA Conference – Medication Reconciliation and Accreditation Canada Standards – Montreal
August 2008	Site Visit PEI Hillsborough Hospital- linked to Acute and Long Term Care (Aug 08)
September 2008	Site Visit - Westpark – Online Educational Model
September 2008	Site Visit - South Lake Regional- Ambulatory Care

Focus on Patient Safety

The Canadian Council on Health Services Accreditation and the Institute for Safe Medication Practices Canada (ISMP) have developed three workshops focusing on patient safety and the new accreditation program. The workshops will be offered over three consecutive days in four cities across Canada (Toronto on May 13 - 15, Vancouver on May 27 - 29, Halifax on June 11 - 13, and Montreal on June 16 - 18).

Day 1: Patient Safety and Qmentum

During this workshop participants will obtain critical information needed for improving patient safety and meeting the standards and Required Organizational Practices (ROPs) and other key requirements of CCHSA's new accreditation program (Qmentum).

Introducing 6 new ROPs for 2009 Surveys

Key concepts, practices, strategies and tools for improving patient safety will be examined through presentations, discussions and exercises. Participants will be given the opportunity to share and learn from each other about their experiences with patient safety initiatives. Subject to participant interest, ISMP Canada will provide a lunchtime presentation on the systems approach and human factors engineering.

Day 2: Safer Medication Practices and Medication Reconciliation

This workshop will focus on CCHSA's new standards related to patient safety including the medication management standards. Discussions will include: what is expected and how should organizations ensure that they are prepared to address the standards effectively. Surveyor experiences will provide clarity on how organizations are interpreting ROPs and particularly the Medication Reconciliation ROP. ISMP Canada will lead a presentation focussing on Medication Reconciliation implementation and learning from medication reconciliation teams across the country.

Day 3: Proactive Risk Assessment Tools

During the third workshop, ISMP Canada will provide an overview of proactive risk assessment tools including: Errors of Omission, Simulation, Fault Tree Analysis, Hazard Analysis, Worst-Case Analysis, Hazard Analysis and Critical Control Point (HACCP) and Failure Mode and Effects Analysis (FMEA). Focus will be placed on FMEA. Participants will learn about FMEA using the Canadian Failure Mode and Effects Analysis Framework© and conduct an abbreviated FMEA on a healthcare process.

Who should attend?

These sessions will be of interest to Patient Safety Officers, Accreditation Coordinators, Occupational Health and Safety officers, Pharmacy Personnel, Directors of Care, Infection Control nurses and members of infection prevention and control committees.

To register, please refer to http://www.cchsa.ca/default.aspx?page=351.

Appendix

4

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

ISMP Canada Annual Report: Medication Reconciliation Intervention, April 2007 to March 2008

Medication Reconciliation in Acute Care One-Page Summary

The 10 SHN interventions

- **AMI** - Acute Myocardial Infarction
- **CLI** - Central-line associated Bloodstream Infections
- **Falls** - Falls Collaborative in Long-term care
- **MedRec** - Medication Reconciliation (Acute-care)
- **MedRec** - Medication Reconciliation (Long-term care)
- **MRSA** - Antibiotic-resistant organisms (AROs)/Methicillan-resistant *Staphococcus aureus*
- **RRT** - Rapid Response Teams
- **SSI** - Surgical Site Infections
- **VAP** - Ventilator-associated Pneumonia
- **VTE** – Venous thromboembolism

Goal

Prevent adverse drug events (ADEs) by implementing a medication reconciliation process upon admission, transfer and discharge.

Background

- ADEs occur frequently. Communication problems between healthcare professionals in different care settings are a significant factor. A 2004 Canadian study found drug and fluid-related events were the second most common type of procedure or event related to adverse events.[1]
- In a Canadian investigation, Forster et al. found that 23% of hospitalized patients discharged from an internal medicine service experienced an adverse event; of the 23%, 72% were ADEs.[2]
- Chart reviews reveal over half of all hospital medication errors occur at the interfaces of care.[3]
- A Canadian study by Cornish and colleagues found that 53.6% of the study population had at least one unintended discrepancy, of which 38.6% were judged to have the potential to cause moderate to severe discomfort or clinical deterioration. Most discrepancies (46.4%) included the omission of a regularly used medication.[4]

Medication reconciliation is a process designed to prevent medication errors at patient transition points. It includes:

- Creating the most complete and accurate list or Best Possible Medication History (BPMH) of all home medications for each patient.
- Using that list when writing medication orders.
- Comparing the list against the physician's admission, transfer, and/or discharge orders; identifying and bringing any discrepancies to the attention of the physician; and, if appropriate, making changes to the orders ensuring the changes are documented.

Accreditation Canada includes medication reconciliation as part of its required organizational practices which includes:

- Reconciling the clients' medications upon admission to the organization, with the involvement of the patient/client.
- Reconciling medications with the patient/client at referral or transfer and communicating the clients' medications to the next provider at referral or transfer to another setting, service, service provider or level of care within or outside the organization.[5]

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[1] Baker GR, Norton PG. The Canadian Adverse Events Study: the incidence of adverse events among hospitalized patients in Canada. Can Med Assoc J. 2004; 170(11):1678-1686.

[2] Forster AJ. Clark HD. Menard A, Dupuis N, Chernish R. et. al., Adverse events among medical patients after discharge from hospital. Can Med Assoc J. 2004; 170(3):345-349

[3] Rozich JD, Resar RK. Medication Safety: One organization's approach to the challenge. J Clin Outcomes Manage.2001;8(10):27-34. 4

[4] Cornish PL, Knowles SR, Marchesano R, Tam V, Shadowitz 5, Juurlink DN, Etchells EE. Unintended medication discrepancies at the time of hospital admission. Arch Intern Med. 2005;165:424-429.

[5] Accreditation Canada. Required Organizational Practices. Accessed July 2008. Available at: http://www.accreditation-canada.ca/default.aspx?page=355&cat=30

Intervention Measures

The core measures are:

Admission and Transfer:

1. Mean # of UNDOCUMENTED INTENTIONAL Discrepancies [Documentation Accuracy]
   Target: Reduce baseline in area of focus by 75%
2. Mean # of UNINTENTIONAL Discrepancies [Medication Error]
   Target: Reduce baseline in area of focus by 75%

Discharge:

1. Percentage of patients reconciled at discharge with a Best Possible Medication Discharge Plan (BPMDP)
   Target: 100% of all eligible patients

Note: A BPMDP is created by using the BPMH and the 24-hour medication administration record (MAR) as references. It evaluates and accounts for: new medications started in hospital, discontinued medications, adjusted medications, unchanged medications that are to be continued, medications held in hospital, formulary adjustments made in hospital, new medications started upon discharge and additional comments as appropriate - e.g., status of herbals or medications to be taken at the patient's discretion.

Success Stories:

- Kwan et al. conducted randomized controlled trial with 464 surgical patients at the University Health Network in Toronto, Ontario. They demonstrated that multidisciplinary medication reconciliation (pharmacists, nurses and physicians partnering with the patient) in a preadmission clinic resulted in a 50% reduction in the number of patients with discrepancies linked to home medications. Furthermore, the collaborative intervention also resulted in more than halving the number of patients with discrepancies with the potential to cause possible or probable harm compared to standard of care (29.9% vs. 12.9%).[6]
- A multidisciplinary team at the Royal Jubilee Hospital (Vancouver Island Health Authority) developed a sustained practice medication reconciliation model in a surgical pre-admission clinic serving four surgical wards. During a 6 month review of 615 patients with 3570 medications reconciled, the team estimated 591 potential discrepancies were avoided with the intervention.
- Pincher Creek Hospital, within the Chinook Health Region, has implemented a system to ensure the community pharmacy was contacted for a current medication list. To date, 90% of complex medical clients are admitted with a current medication history.
- New evidence is emerging on a continual basis.

6 Kwan Y, Fernandes OA, Nagge JJ, Wong GG, Huh J, Hurn DA , et al. Pharmacist medication assessments in a surgical preadmission clinic. *Arch Intern Med* 2007;167:1034-1040.

MEDICATION RECONCILIATION
From Admission to Discharge

1 ADMISSION

AT ADMISSION:

The goal of admission medication reconciliation is to ensure there is a conscious decision on the part of the patient's prescriber to continue, discontinue or modify the medication regime that a patient has been taking at home.

Compare:

Best Possible Medication History (BPMH)

vs.

Admission Medication Orders (AMO)

to identify and resolve discrepancies

2 TRANSFER

AT TRANSFER:

The goal of transfer medication reconciliation is to consider not only what the patient was receiving on the transferring unit but also any medications they were taking at home that may be appropriate to continue, restart, discontinue or modify.

Compare:

Best Possible Medication History (BPMH)

and the

Transferring Unit Medication Administration Record (MAR)

vs.

Transfer Orders

to identify and resolve discrepancies

3 DISCHARGE

AT DISCHARGE:

The goal of discharge medication reconciliation is to reconcile the medications the patient is taking prior to admission and those initiated in hospital, with the medications they should be taking post-discharge to ensure all changes are intentional and that discrepancies are resolved prior to discharge.

Compare:

Best Possible Medication History (BPMH)

and the

Last 24 hour Medication Administration Record (MAR)

plus

New medications started upon discharge

to identify and resolve discrepancies and prepare the Best Possible Medication Discharge Plan (BPMDP)

Adapted from Barnsteiner, J. H. (2005). Medication Reconciliation. American Journal of Nursing, 3(suppl), 31-36. Created by the Institute for Safe Medication Practices Canada (ISMP Canada) for the *Safer Healthcare Now!* campaign.

Campagne québécoise
Ensemble, améliorons la prestation sécuritaire des soins de santé!

SSPSM 10 stratégies :

- **BCM** - Bilan comparatif des médicaments (sons de courte durée)
- **BCM** - Bilan comparatif des médicaments (sons de longue durée)
- **CHUTES** - Collectif sur les chutes en milieu de soins de longue durée
- **CIC** - Prévention des infections reliées aux cathéters intravasculaires centraux
- **EIR** - Déployer des équipes d'intervention rapide
- **IAM** - Soins améliorés en cas d'infarctus aigu du myocarde
- **ISO** - Prévention des infections du site opératoire
- **ORA** - Organismes résistant aux antibiotiques / staphylocoque aureus résistant à la methicilline (SARM)
- **PVA** - Prévention de la pneumonie sous ventilation assistée
- **TEV** - Thromboembolie veineuse

Objectif

Prévenir les accidents liés à la médication en mettant en œuvre un processus de bilan comparatif des médicaments à l'admission, au transfert et au congé.

Contexte

- Il est bien connu que l'incidence des accidents lies à la médication survient de façon fréquente et que les problèmes de communication entre les professionnels de la santé provenant des différents milieux de soins représentent un des facteurs contributifs importants. Une étude canadienne en 2004 a trouvé que les événements associés aux médicaments et aux solutés correspondent au deuxième type d'événement indésirable le plus fréquent.[1]
- Dans une étude canadienne, Forster et *al.* ont trouvé une incidence d'événements indésirables (EI) de 23% chez les patients qui ont eu leur congé du service de médecine interne, et de ces EI, 72% étaient des accidents évitables liés à l'utilisation des médicaments. [2]
- Une révision des dossiers de patients révèle que plus de la moitié des accidents liés à la médication qui arrivent dans un centre hospitalier surviennent aux points de transfert.[3]
- Dans une étude canadienne faite par Cornish et *al.*, il a été trouvé que 53.6% des patients éligibles à l'étude (qui prennent >4 médicaments) avaient au moins une divergence non intentionnelle et que 38.6% des divergences avaient le potentiel de générer un malaise modéré à grave ou une détérioration clinique. La plupart des divergences (46%) ont consisté en l'omission d'un médicament administré sur une base régulière. [4]

Le bilan comparatif des médicaments est un processus conçu pour prévenir les accidents liés à la médication aux points de transfert. Ce processus comprend :

- L'obtention d'une liste complète et précise des médicaments ou le Meilleur Schéma Thérapeutique Possible (MSTP) de tous les médicaments pris à domicile pour chaque patient.
- L'utilisation de cette liste pour rédiger une ordonnance.
- La comparaison de cette liste avec les ordonnances émises à l'admission, au transfert et au congé; de plus, il est nécessaire d'identifier les divergences, de les porter à l'attention du médecin et le cas échéant, d'apporter des modifications aux ordonnances en s'assurant qu'elles soient documentées.

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[1] Baker GR, Norton PG. The canadian adverse events study : the incidence of adverse events among hospitalized patients in Canada. CMAJ. 2004; 170(11): 1678-1686.

[2] Forster AJ, Clark HD, Menard A, Dupuis N, Chernish R, et. al., Adverse events among medical patients after discharge from hospital. CMAJ. 2004;170(3):345-349.

[3] Rozich JD, Resar RK. Medication Safety: One organization's approach to the challenge. J Clin Outcomes Management. 2001; 8(10): 27-34.

[4] Cornish PL, Knowles SR, Marcheso R, Tam V, Shadowitz S, Juurlink DN, Etchells EE. Unintended medication discrepancies at the time of hospital admission. Arch Intern Med. 2005;165:424-429.

Le bilan comparatif des médicaments fait partie des pratiques organisationnelles requises d'Agrément Canada. Ceci comprend :

- La réconciliation des médicaments du client lors de son admission dans un établissement en impliquant ce dernier.
- La réconciliation des médicaments avec le patient/client lors de la référence ou du transfert et la communication des médicaments pris par le client au prochain professionnel de la santé référé ou dans un autre milieu, service, prestataire de service ou niveau de soins à l'intérieur ou à l'extérieur de l'établissement.[1]

Mesures associées à la stratégie

Les mesures de base sont les suivantes :

Admission et transfert :

1. Le nombre moyen de divergences intentionnelles non-documentées (précision au niveau de la documentation).
   Objectif : Réduire le taux obtenu à la phase préliminaire de 75%
2. Le nombre moyen de divergences non intentionnelles (accident lié à la médication).
   Objectif : Réduire le taux obtenu à la phase préliminaire de 75%

Congé :

1. Pourcentage de patients dont le processus de bilan comparatif des médicaments est complété lors du congé et qui ressortent avec un Meilleur Plan Médicamenteux Possible au Congé (MPMPC).

   Objectif : 100% de tous les patients éligibles.

Note : Un MPMPC est crée en utilisant le MSTP et le registre d'administration des médicaments des 24 dernières heures comme sources de référence. Il évalue et tient compte : des nouveaux médicaments prescrits à l'hôpital, les médicaments qui ont été cessés, les médicaments dont la dose a été ajustée, les médicaments qui n'ont pas été changés et qui doivent encore être pris par le patient, les médicaments qui ont été mis de côté lors du séjour à l'hôpital, les ajustements au formulaire qui ont été faits à l'hôpital, les nouveaux médicaments qui doivent être commencés au congé et d'autres commentaires, si nécessaires, p.ex., les produits naturels ou des médicaments qui sont pris à la discrétion du patient.

Histoires à succès

- Kwan et *al.* ont effectué un essai clinique randomisé avec 464 patients en chirurgie au University Health Network de Toronto. Ils ont démontré qu'en faisant un bilan comparatif des médicaments interdisciplinaire (avec le pharmacien, l'infirmière, le médecin en partenariat avec le patient) à la clinique de pré admission, ceci a permis de réduire de 50% le nombre de patients qui ont une divergence associée avec les médicaments pris à domicile. De plus, cette collaboration a permis de diminuer de moitié le nombre de patients qui pourraient avoir un préjudice potentiel comparé aux normes de pratique (29,9% vs 12,9%). [1]
- Une équipe multidisciplinaire du Royal Jubilee Hospital (Vancouver Island Health Authority) a développé un modèle durable de bilan comparatif des médicaments dans une clinique de pré admission en chirurgie qui dessert quatre unités de chirurgie. En effectuant une révision de dossiers de 615 patients qui ont eu 3570 médicaments réconciliés pendant une période de six mois, l'équipe estime qu'environ 591 divergences potentielles ont été évitées grâce au bilan comparatif des médicaments.
- Le Pincher Creek Hospital qui se trouve dans le Chinook Health Region, a mis en œuvre un système pour assurer que la pharmacie communautaire soit contactée pour obtenir la liste des médicaments la plus récente. Jusqu'à ce jour, 90% des patients qui ont un régime posologique complexe sont admis avec une liste des médicaments à jour.
- Des nouvelles données probantes sortent de manière continuelle.

BILAN COMPARATIF DES MÉDICAMENTS
de l'admission au congé

1 ADMISSION

LORS DE L'ADMISSION :

Le but du bilan comparatif des médicaments lors de l'admission est de s'assurer que le médecin prescripteur décide de manière éclairée de poursuivre, d'interrompre ou de modifier les médicaments que le patient prenait à la maison.

Comparer :

le meilleur schéma thérapeutique possible (MSTP)

avec les

ordonnances émises à l'admission (OÉA)

pour identifier et résoudre les divergences

2 TRANSFERT

LORS D'UN TRANSFERT :

Le but d'un bilan comparatif des médicaments lors d'un transfert est de prendre en considération, non seulement les médicaments que le patient reçoit lors du transfert, mais aussi tous les médicaments qu'il prenait à la maison et qui doivent être maintenus, interrompus ou modifiés.

Comparer :

le meilleur schéma thérapeutique possible (MSTP)

et le

Registre d'administration des médicaments dans l'unité de transfert

avec les

ordonnances émises lors du transfert

pour identifier et résoudre les divergences

3 CONGÉ

LORS D'UN CONGÉ :

Le but du bilan comparatif des médicaments lors d'un congé est de comparer les médicaments pris par le patient avant l'admission (MSTP) et ceux pris à l'hôpital avec les médicaments qui doivent être pris après le départ du patient de l'hôpital, pour s'assurer que tous les changements sont intentionnels et que les divergences sont résolues avant le congé.

Comparer :

le meilleur schéma thérapeutique possible (MSTP)

et le

Registre d'administration des médicaments dans les 24 dernières heures,

ainsi que les

nouveaux médicaments prescrits lors du congé

pour identifier et résoudre les divergences et élaborer le meilleur plan médicamenteux possible *lors d'un congé (MPMPC)*

Adapted from Barnsteiner, J. H. ([illegible]). Medication Reconciliation. American Journal of Nursing, [illegible].

Appendix

5

Medication Reconciliation Posters

Top 10 Practical Tips

How to Obtain an Efficient, Comprehensive and Accurate Best Possible Medication History (BPMH)

1. **Be proactive.** Gather as much information as possible prior to seeing the patient. Include primary medication histories, provincial database information, and medications vials/ lists.

2. **Prompt questions about non-prescription categories:** over the counter drugs, vitamins, recreational drugs, herbal/traditional remedies.

3. **Prompt questions about unique dosage forms:** eye drops, inhalers, patches, and sprays.

4. **Don't assume patients are taking medications according to prescription vials** (ask about recent changes initiated by either the patient or the prescriber).

5. **Use open-ended questions:** ("Tell me how you take this medication?").

6. **Use medical conditions as a trigger** to prompt consideration of appropriate common medications.

7. **Consider patient adherence with prescribed regimens** ("Has the medication been recently filled?").

8. **Verify accuracy:** validate with at least two sources of information.

9. **Obtain community pharmacy contact information:** anticipate and inquire about multiple pharmacies.

10. **Use a BPMH trigger sheet** (or a systematic process / interview guide). Include efficient order/optimal phrasing of questions, and prompts for commonly missed medications.

Adapted with permission from O. Fernandes PharmD, University Health Network, 2008

Medication Reconciliation

What is Medication Reconciliation?

It is a formal process comparing:

An accurate and comprehensive medication history from the patient and other sources (called the Best Possible Medication History)

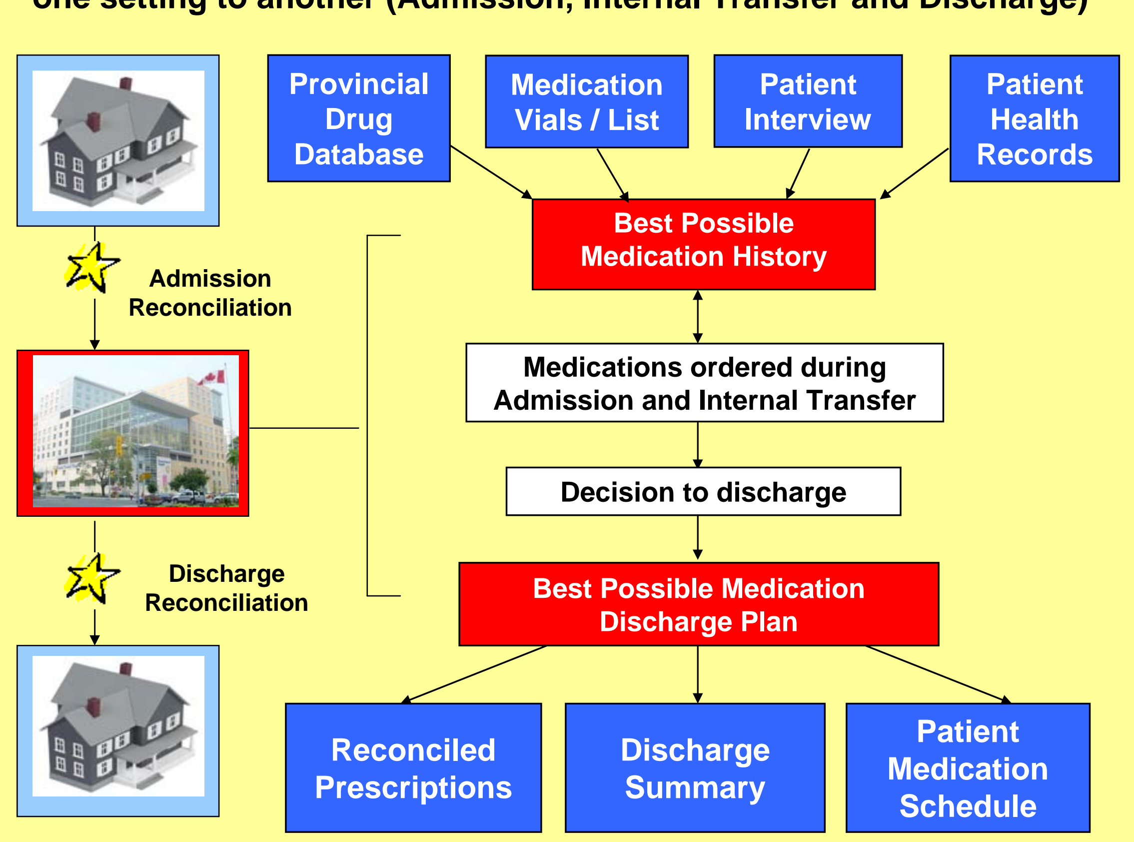
VERSUS

Medications prescribed at Admission, Transfer and Discharge

Discrepancies are identified and brought to the attention of the healthcare team.

When is it done?

Medication Reconciliation is performed whenever a patient moves from one setting to another (Admission, Internal Transfer and Discharge)



Why is it done?

- To improve patient safety and quality of care
- To minimize medication discrepancies and adverse drug events
- To meet Accreditation Canada Standards
- Medication Reconciliation is a *Safer Healthcare Now!* Initiative (a national campaign for patient safety)

Developed by Philip Lam and Morgan Harrison BScPhm Candidates, Olavo Fernandes PharmD, Alejandro Montoya MD, Debra Davies BSc, RN, Manager ED, University Health Network and Brenda Carthy BSc ISMP Canada.

Best Possible Medication History Interview Guide

Introduction

- Hello Mr./Mrs./Ms./Miss. __________________________ (client/ patient/ resident)
- My name is ________________, (introduce self / 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? ❑ YES ❑ NO 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. potassium, glucosamine, St. John's Wort)? If yes, how do you take __ ?

- 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

- 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.

***DRAFT** – to be finalized Jan 09*

Shiwani Chhibbar BScPhm Candidate and Sara Ingram BScPhm, ACPR, Olavo Fernandes PharmD, University Health Network and Alice Watt BScPhm, Margaret Colquhoun ISMP Canada.
Please kindly do not reproduce / adapt without permission olavo.fernandes@uhn.on.ca

Appendix

5

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

ISMP Canada Annual Report: Medication Reconciliation Intervention, April 2007 to March 2008

Canadian Patient Safety Week (CPSW) Material

SHN Newsletter Volume 4, Issue 3

Fall 2008

Canadian Patient Safety Week to focus on medication reconciliation

Knowledge is the Best Medicine. Ask. Talk. Listen.

Medication reconciliation is the theme of the fourth annual **Canadian Patient Safety Week (CPSW)**, scheduled to take place **September 29 to October 4, 2008.**

CPSW - the only designated Canadian week of its kind – will focus on sharing safety advancements with healthcare providers, patients and their families. It will raise awareness of patient safety issues, programs and projects related to medication reconciliation happening across Canada, nationally, provincially, regionally and at local organization levels. The week also encourages patients and their families to be involved in their own healthcare by knowing their medications, keeping records of them, and sharing accurate medication information with all of their healthcare providers.

According to the Canadian Institute for Health Information (CIHI), one in nine patients receive the wrong medication or wrong dose. Approximately 50 per cent of Canadian patients have at least one medication error upon admission to hospital and about 39 per cent of these errors have the potential to cause moderate to severe harm.[1]

"To help ensure the best care possible, one of the most important actions patients can do to is to keep an updated list of their medications (both prescription and non-prescription drugs) and to always take this list with them when they visit a healthcare provider," says Phil Hassen, CEO of the Canadian Patient Safety Institute. "If a patient is unable to keep this list updated, having an advocate, such as a family member, be aware of the medications they are taking and keeping an updated list for them is essential."

The *Safer Healthcare Now!*(SHN) medication reconciliation (MedRec) intervention is being implemented in acute and long-term care facilities across the country. In addition, approximately 20 Canadian home care teams will celebrate the offical launch of the MedRec in home care pilot project during CPSW. The goal is to build awareness around the frequency of adverse drug events within home care settings, and to increase the home care teams responsiveness and involvement in the pilot.

Medication reconciliation begins with creating a complete and accurate list (Best Possible Medication History - BPMH) of medications that patients are currently taking and comparing the list to medication orders at transition points (e.g. admission, transfer and discharge), in order to ensure that all changes are intentional and communicated effectively. Over 350 teams are enrolled in the SHN medication reconciliation intervention and are developing strategies to improve communication. The logical next phase is to engage patients, as they are the only constant at each transition point.

"We hope that CPSW will increase awareness of and involvement in medication reconciliation," says Marg Colquhoun of the Institute for Safe Medication Practices Canada (ISMP Canada) and the intervention lead for medication reconciliation. "*Safer Healthcare Now!* and Canadian Patient Safety Week provides people with tools they can use to improve medication safety at transition points in patient care."

Over 200 healthcare organizations and frontline professionals from across the country have already signed up to help promote CPSW and share information about medication reconciliation within their organizations and communities. The Canadian Patient Safety Week website (www.patientsafetyweek.ca) contains tools and resources to assist organizations in planning local events, with more added weekly as the event approaches. Public Service Announcements (PSAs) promoting medication reconciliation will also be heard on radio stations across the country during CPSW.

To find out more about CPSW or to register as a leader, visit www.patientsafetyweek.ca or send an email to CPSW@cpsi-icsp.ca

References:

[1] Cornish PL, Knowles SR, Marchesano R, Tam V, Shadowitz S, Juurlink DN, Etchells EE. Unintended medication discrepancies at the time of hospital admission *Archives of Internal Medicine.* 2005; 165 (4): 424-429. Full text available from: http://archinte.ama-assn.org/cgi/content/full/165/4/424

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Objectives

1. Define medication reconciliation and its importance to enhancing patient safety
2. Highlight selected key activities health care professionals across Canada perform to ensure medication reconciliation for patients
3. Outline the patient's role in medication reconciliation
   - Tips and strategies for patients to optimize safe medication use

Why are we concerned?

Canadian Adverse Events Study

In the Hospital:

- 7.5% (or 187,500) patients in Canadian hospitals were seriously harmed by their care.
- As many as 9,250 to 23,750 people died in a Canadian hospital as a result of medical errors.
- 37% of adverse events were determined to be preventable.
- 24% related to medication or fluid administration

Source: Baker GR, Norton PG, Flintoft V, et al. CMAJ. 2004;170(1):1678-1686. Available online at www.cmaj.ca

In the community and at home:

- Adverse drug events can account for 1 in 16 hospital admissions (UK)[1]
- Predictors of medication discrepancies in outpatient practice[2]
  - involve all classes of medications

  Risk Factors:
  - Increasing age
  - Increasing number of prescribed medications

[1] Pirmohamed M, et al. *BMJ* 2004;329:15-19
[2] Bedell SE, et al. *Arch Intern Med* 2000;160:2129-2134

Discharge from hospital to home:

- 23% (study of 328 patients) experienced at least one adverse event after discharge
  - 72% of all adverse events were related to medications

Ref: Forster AJ, et al. *CMAJ* 2004;170(3):345-349

Why should patients/ families be aware about medication safety ?

Unfortunately, medication errors/ mistakes happen

- They can happen at home, in hospitals, and in your community pharmacy
  - Sometimes can cause harm
- The more information you have, the better able you are to prevent medication errors
- Patients are key partners with healthcare professionals to ensure medications are used safely and appropriately

Reference: ISMP / www.ismp.org

What is Canada doing to prevent medication errors?
Safer Healthcare Now!
safer healthcare
now!
ismp
safer healthcare
now!

safer healthcare
now!
• A national campaign to enlist Canadian healthcare organizations in implementing ten targeted interventions
• The campaign is committed to the advancement and improvement of patient safety through reducing the number of injuries and deaths related to adverse events
• Each of the interventions has an evidence base
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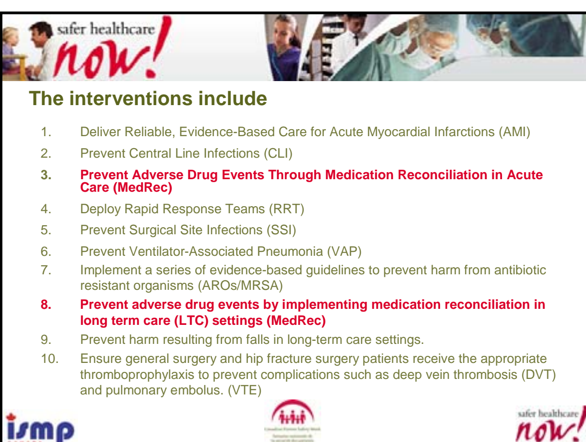
safer healthcare
now!
The interventions include
1. Deliver Reliable, Evidence-Based Care for Acute Myocardial Infarctions (AMI)
2. Prevent Central Line Infections (CLI)
3. Prevent Adverse Drug Events Through Medication Reconciliation in Acute Care (MedRec)
4. Deploy Rapid Response Teams (RRT)
5. Prevent Surgical Site Infections (SSI)
6. Prevent Ventilator-Associated Pneumonia (VAP)
7. Implement a series of evidence-based guidelines to prevent harm from antibiotic resistant organisms (AROs/MRSA)
8. Prevent adverse drug events by implementing medication reconciliation in long term care (LTC) settings (MedRec)
9. Prevent harm resulting from falls in long-term care settings.
10. Ensure general surgery and hip fracture surgery patients receive the appropriate thromboprophylaxis to prevent complications such as deep vein thrombosis (DVT) and pulmonary embolus. (VTE)
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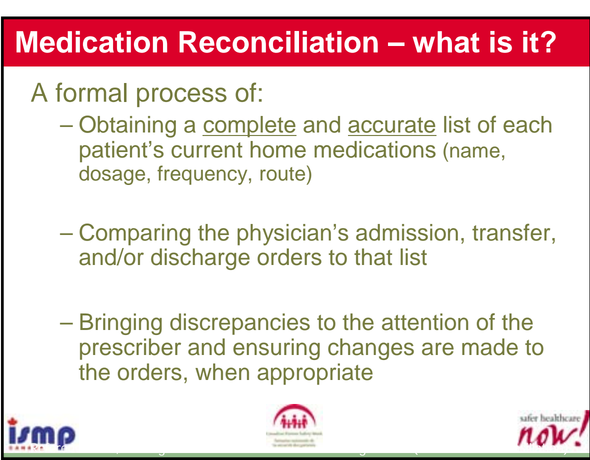
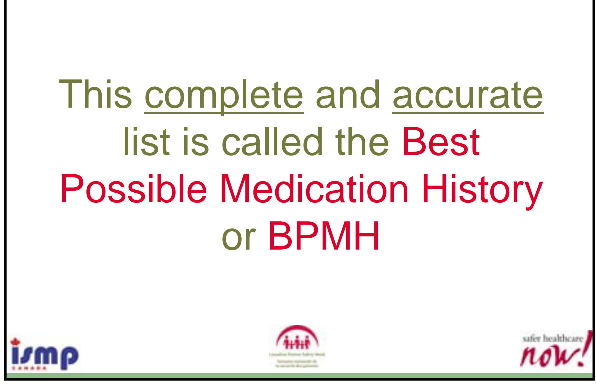

Medication Reconciliation – what is it?
A formal process of:
– Obtaining a complete and accurate list of each patient's current home medications (name, dosage, frequency, route)
– Comparing the physician's admission, transfer, and/or discharge orders to that list
– Bringing discrepancies to the attention of the prescriber and ensuring changes are made to the orders, when appropriate
ismp
safer healthcare
now!


This complete and accurate list is called the Best Possible Medication History or BPMH
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now!

The process of resolving discrepancies between your BPMH and the doctor's orders is called Medication Reconciliation
Accreditation Canada requires all Canadian Hospitals to do Medication Reconciliation
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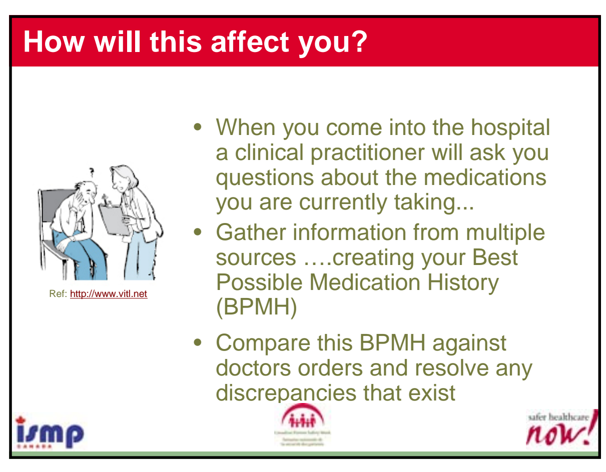
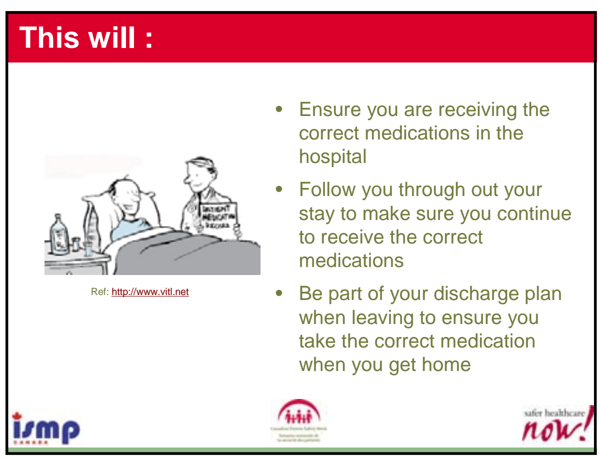
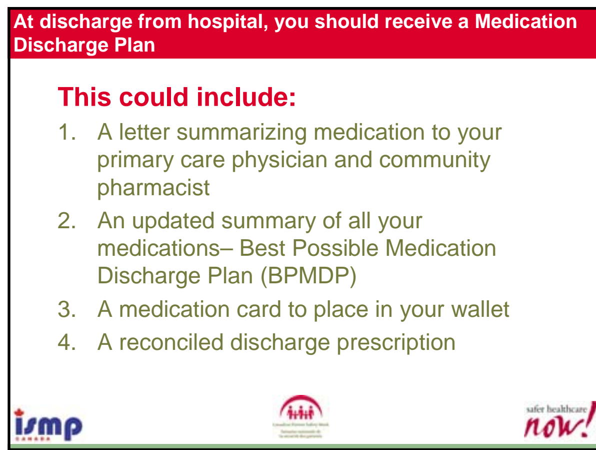
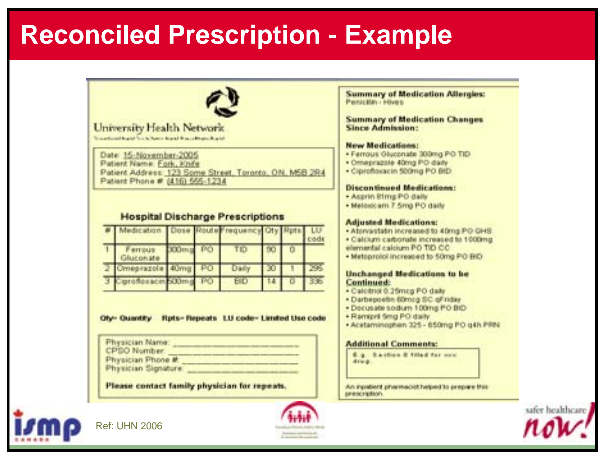








University Health Network

Date: 15-November-2005
Patient Name: Fork, Knife
Patient Address: 123 Some Street, Toronto, ON, M5B 2R4
Patient Phone # (416) 555-1234

Hospital Discharge Prescriptions

#	Medication	Dose	Route	Frequency	Qty	Rpts	LU code
1	Ferrous Gluconate	300mg	PO	TID	90	0	
2	Omeprazole	40mg	PO	Daily	30	1	295
3	Ciprofloxacin	500mg	PO	BID	14	0	336

Qty= Quantity Rpts= Repeats LU code= Limited Use code

Physician Name: ____________
CPSO Number: ____________
Physician Phone #: ____________
Physician Signature: ____________
Please contact family physician for repeats.

Summary of Medication Allergies:
Penicillin - Hives

Summary of Medication Changes Since Admission:

New Medications:
- Ferrous Gluconate 300mg PO TID
- Omeprazole 40mg PO daily
- Ciprofloxacin 500mg PO BID

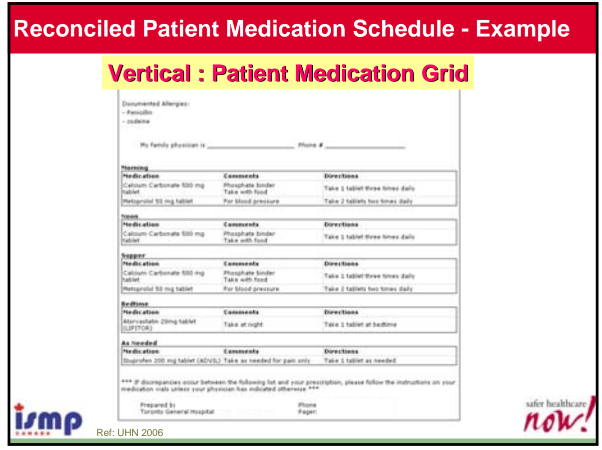
Discontinued Medications:
- Asprin 81mg PO daily
- Meloxicam 7.5mg PO daily

Adjusted Medications:
- Atorvastatin increased to 40mg PO QHS
- Calcium carbonate increased to 1000mg elemental calcium PO TID CC
- Metoprolol increased to 50mg PO BID

Unchanged Medications to be Continued:
- Calcitriol 0.25mcg PO daily
- Darbepoetin 60mcg SC qFriday
- Docusate sodium 100mg PO BID
- Ramipril 5mg PO daily
- Acetaminophen 325 - 650mg PO q4h PRN

Additional Comments:
E.g. Section 8 filled for xxx drug.

An inpatient pharmacist helped to prepare this prescription.



Documented Allergies:
- Penicillin
- codeine

My family physician is ____________ Phone # ____________

Morning

Medication	Comments	Directions
Calcium Carbonate 500 mg tablet	Phosphate binder Take with food	Take 1 tablet three times daily
Metoprolol 50 mg tablet	For blood pressure	Take 2 tablets two times daily

Noon

Medication	Comments	Directions
Calcium Carbonate 500 mg tablet	Phosphate binder Take with food	Take 1 tablet three times daily

Supper

Medication	Comments	Directions
Calcium Carbonate 500 mg tablet	Phosphate binder Take with food	Take 1 tablet three times daily
Metoprolol 50 mg tablet	For blood pressure	Take 2 tablets two times daily

Bedtime

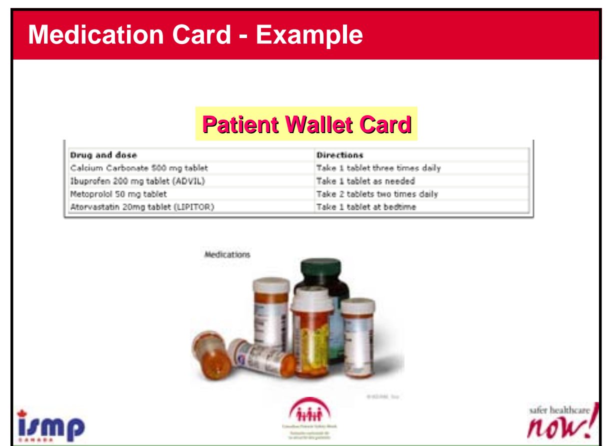
Medication	Comments	Directions
Atorvastatin 20mg tablet (LIPITOR)	Take at night	Take 1 tablet at bedtime

As Needed

Medication	Comments	Directions
Ibuprofen 200 mg tablet (ADVIL)	Take as needed for pain only	Take 1 tablet as needed

*** If discrepancies occur between the following list and your prescription, please follow the instructions on your medication vials unless your physician has indicated otherwise ***

Prepared by: Toronto General Hospital Phone: Pager:



Drug and dose	Directions
Calcium Carbonate 500 mg tablet	Take 1 tablet three times daily
Ibuprofen 200 mg tablet (ADVIL)	Take 1 tablet as needed
Metoprolol 50 mg tablet	Take 2 tablets two times daily
Atorvastatin 20mg tablet (LIPITOR)	Take 1 tablet at bedtime

Why are we doing this?
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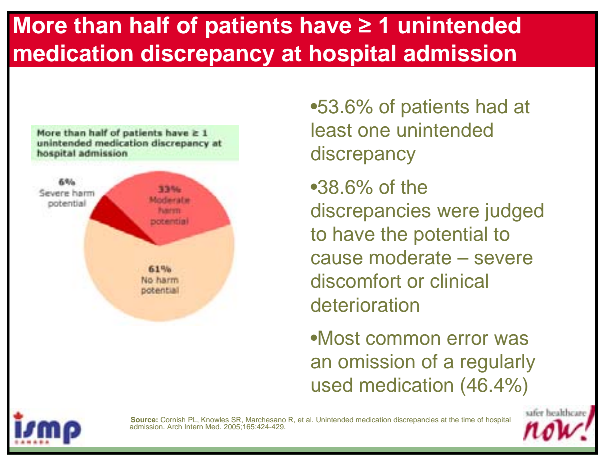
safer healthcare now!


More than half of patients have ≥ 1 unintended medication discrepancy at hospital admission
More than half of patients have ≥ 1 unintended medication discrepancy at hospital admission
6% Severe harm potential
33% Moderate harm potential
61% No harm potential
•53.6% of patients had at least one unintended discrepancy
•38.6% of the discrepancies were judged to have the potential to cause moderate – severe discomfort or clinical deterioration
•Most common error was an omission of a regularly used medication (46.4%)
Source: Cornish PL, Knowles SR, Marchesano R, et al. Unintended medication discrepancies at the time of hospital admission. Arch Intern Med. 2005;165:424-429.
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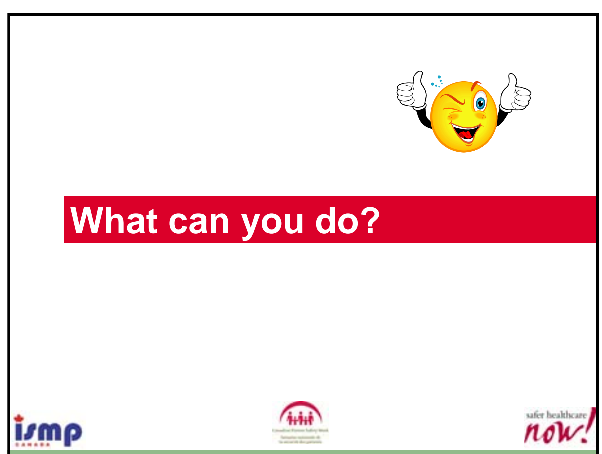
What can you do?
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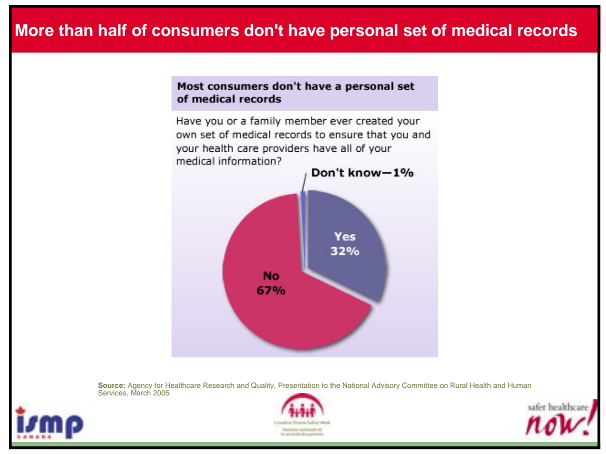
More than half of consumers don't have personal set of medical records
Most consumers don't have a personal set of medical records
Have you or a family member ever created your own set of medical records to ensure that you and your health care providers have all of your medical information?
Don't know—1%
Yes 32%
No 67%
Source: Agency for Healthcare Research and Quality, Presentation to the National Advisory Committee on Rural Health and Human Services, March 2005
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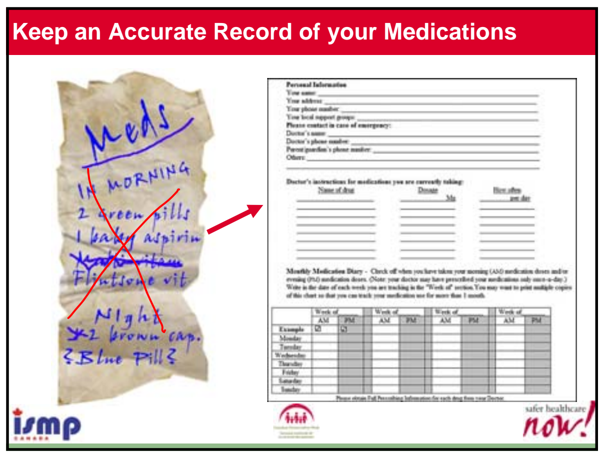
Keep an Accurate Record of your Medications
Meds
In morning
2 green pills
1 baby aspirin
Flintstone vit
Night
2 brown cap.
Blue Pill
Personal Information
Monthly Medication Diary
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Medication Use Safety:
What Patients Can Do
Image: http://www.jcrinc.com
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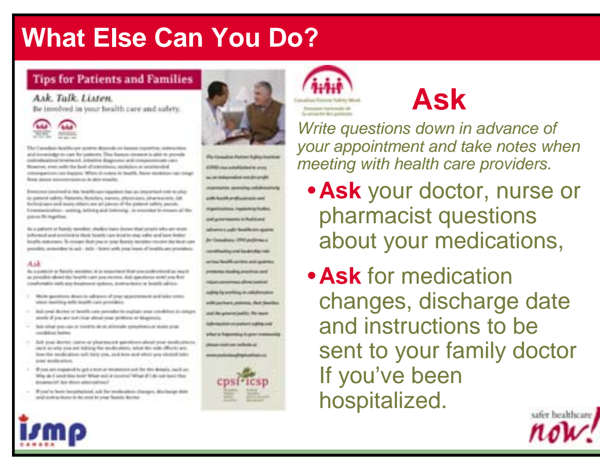
Follow these Top 5: Tips for Patients*

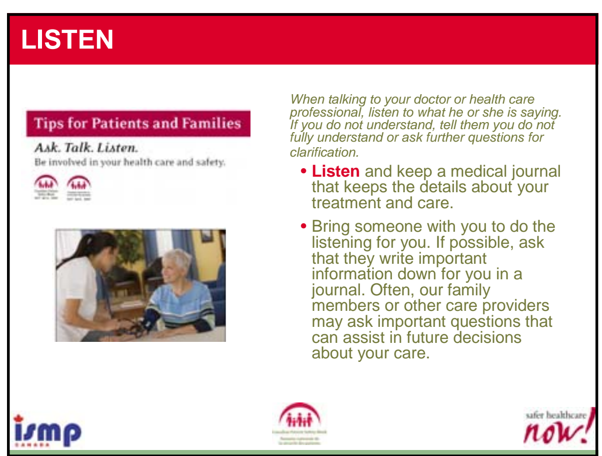
At Home

1. **Make a list of medications you are taking**
   - Name, dose, how often you take them
   - Change and update your list
   - List your medication / food allergies, over-the-counter (non-prescription) medications, vitamins, nutritional supplements or herbal products
2. **Keep medications in their original containers**
   - Many pills look alike
   - Read the label every time you take a dose to double check
   - Avoid storing medications in bathroom cabinet or direct sunlight
   - Store medications where children can't reach them
   - Don't chew, crush or break capsules unless instructed

* Reference: ISMP / www.ismp.org

ismp CANADA — safer healthcare now!





Patient Tips

- Make your doctor aware if you have seen or are seeing more than one doctor about your problems.
- When you visit the doctor or go to the hospital, bring you medications – or an updated list – with you.
- Ensure your doctor knows all the medications, herbal supplements or vitamins you are taking - over-the-counter medications can have an effect on prescription medications.

Patient Tips

- Make sure any prescriptions your doctor writes are legible and that you know the name of the drug prescribed.
- Take your medications as prescribed. Ensure you understand what the medicine is for, how you are supposed to take it and any possible side effects. Talk to your doctor or pharmacist immediately if you are unclear about a medication or are concerned about side effects
- Keep track of any adverse reactions or allergies you have to the medications.
- If you're being discharged from the hospital, ask your doctor to write down any treatment plans or instructions you will need at home. This information should be shared with your family doctor as well.

To find out more… go to these useful websites

- Safer Healthcare Now!
  www.saferhealthcarenow.ca/
- Canadian Patient Safety Institute
  www.patientsafetyinstitute.ca
- Institute for Safe Medication Practices Canada
  www.ismp-canada.org

Crossing Boundaries Safely: Overcoming Challenges to Successfully Implement Medication Reconciliation

To celebrate patient safety week, join us for a panel discussion on overcoming medication reconciliation challenges and lessons learned.

Everyone Welcome. Breakfast will be served.

Panel:

- **Dr. Edward Etchells (Medicine)**, Sunnybrook Health Sciences Centre
- **Emily Musing (Pharmacy)**, University Health Network
- **Kim Streitenberger (Nursing)**, Hospital for Sick Children
- **Moderators:** Margaret Colquhoun and Olavo Fernandes **,** ISMP Canada/ *Safer Healthcare Now!*

When: Thursday October 2nd, 2008 0730-0900 (breakfast)

Where: Leslie Dan Faculty of Pharmacy, University of Toronto

144 College Street (College and University) - 8th Floor Room 850

RSVP: Kelly Lane at **kelly.lane@uhn.on.ca** or 416-340 4800 x4765

*** Please RSVP by Sept. 30th - Registration capped at 100 attendees**

National Canadian Patient Safety Week Panel:

Crossing Boundaries Safely: Overcoming Challenges to Successfully Implement Medication Reconciliation

October 2, 2008

National Canadian Patient Safety Week Panel:

Dr. Edward Etchells (Medicine), Sunnybrook Health Sciences Centre
Emily Musing (Pharmacy), University Health Network
Kim Streitenberger (Nursing), Hospital for Sick Children

Moderators:
Margaret Colquhoun and Olavo Fernandes ,
ISMPCanada/ *Safer Healthcare Now!*

Outline

- Introduction / Background
  - Margaret Colquhoun and Olavo Fernandes

Three Challenges we will be Focusing on :

- 1. Challenge: How do we actually "get started and sustain" implementation?
  - Emily Musing
- 2. Challenge: Where do we get the "resources" to implement and sustain medication reconciliation?
  - Dr. Edward Etchells
- 3. Challenge: How do we effectively spread medication reconciliation organization wide?
  - Kim Streitenberger

Interactive Discussion and Questions

Crossing Boundaries Safely: Overcoming Challenges to Successfully Implement Medication Reconciliation

Margaret Colquhoun
ISMP Canada Project Lead
Medication Reconciliation Intervention Lead Safer Healthcare Now!

October 2, 2008

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Medication Reconciliation

- Formal and consistent process in which most accurate list of patient's home medications are compared at transitions of care: admission, transfer, discharge, LTC, homecare
- Discrepancies are identified, brought to attention of physician, required changes are made and communicated
- Intended to minimize potential patient harm from unintended discrepancies

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1. Deliver Reliable, Evidence-Based Care for Acute Myocardial Infarctions (AMI)
2. Prevent Central Line Infections (CLI)
3. **Prevent Adverse Drug Events Through Medication Reconciliation (MedRec) - Acute Care**
4. Deploy Rapid Response Teams (RRT)
5. Prevent Surgical Site Infections (SSI)
6. Prevent Ventilator-Associated Pneumonia (VAP)
7. Antibiotic Resistant Organisms (ARO/MRSA)
8. **Medication Reconciliation (MedRec) in Long-Term Care**
9. Falls in Long Term Care
10. Venous Thromboembolism (VTE)

What is Happening in Medication Reconciliation

- Canadian Patient Safety Week www.patientsafetyinstitute.ca/cpsw
- SHN! medication reconciliation implementation
  - Acute and LTC (separate GSKs available)
  - Homecare being tested by 20 new teams
  - Working to develop new systems and processes for moving medication reconciliation across the continuum
- International - High Fives
  - Canadian Patient Safety Institute/ISMP Canada
- Accreditation Canada

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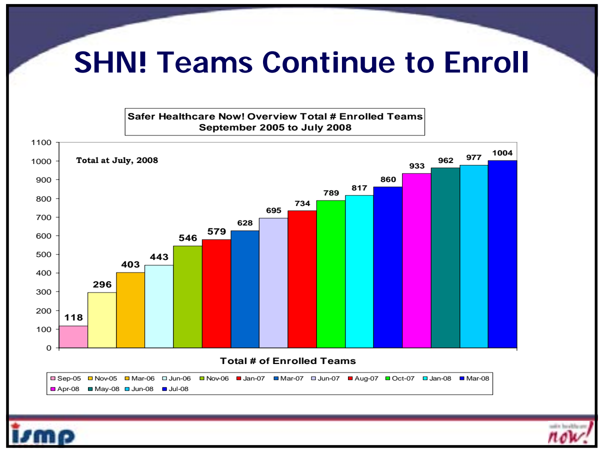
SHN! Teams Continue to Enroll



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Safer Healthcare Now! Enrollment by Province & Territory

Province/Territory	Number of Teams
New Brunswick	40
Newfoundland & Labrador	30
Nova Scotia	78
Prince Edward Island	15
Quebec	60
Ontario	463
Alberta	81
British Columbia	126
Manitoba	73
Northwest Territories	1
Saskatchewan	37
Yukon	0
Total	1004

Total at July 29, 2008

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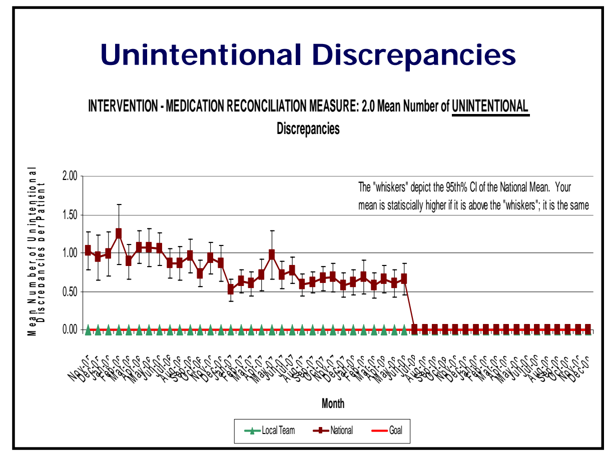
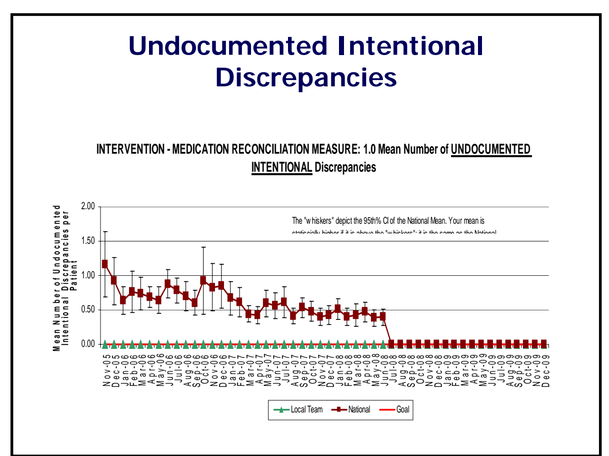




Status of Teams in SHN!

- Multiple models: proactive, reactive and combo
- Most successful at admission, some complete at all transitions, many have not moved to discharge
- Without medication reconciliation at discharge patients continue to be vulnerable

What Have We Learned?

- Ontario has an incredible opportunity with MedsCheck
- Medication reconciliation is complex, requires time, leadership and commitment
- It is worth it to patients
- It is not about LISTS and/or FORMS
- It facilitates care through communication

Challenges??

- "Patients are astounded when they find out how fragmented our system can be"
- "After seeing the data, I couldn't go back to my old way of practice"
- "Champions who were once skeptical have an aha moment when they pick up discrepancies and resolve them – seeing is believing"
- "Once it works clinicians ask why we aren't doing it for all patients"
- "Patient stories are the driver of this initiative"

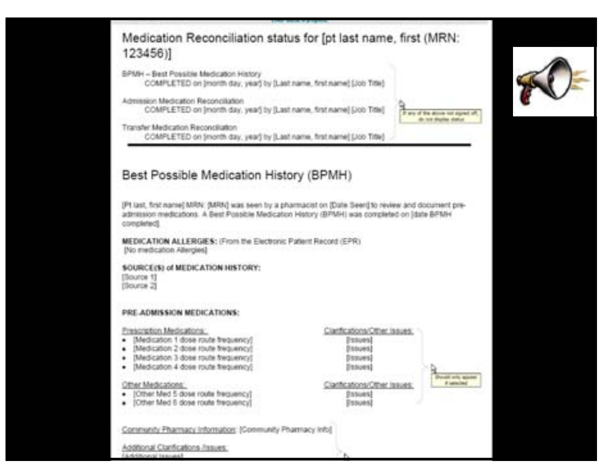
Medication Reconciliation
Taking that first step...

A Helping Hand: Five Strategies

- Leadership
- People
- Coordination
- Communication
- Tools/Systems

Clinician Validation Program

- Interactive Learning/ Education Session
- Readings
- Standardized Patient Validation Program
  - Obtaining BPMH from a standardized patient-actor
  - Admission reconciliation to identify discrepancies
  - Coding of discrepancies
  - Interactive discussion on areas of strength / improvement



Medication Reconciliation status for [pt last name, first (MRN: 123456)]

BPMH – Best Possible Medication History
COMPLETED on [month day, year] by [Last name, first name] [Job Title]

Admission Medication Reconciliation
COMPLETED on [month day, year] by [Last name, first name] [Job Title]

Transfer Medication Reconciliation
COMPLETED on [month day, year] by [Last name, first name] [Job Title]

Best Possible Medication History (BPMH)

[Pt last, first name] MRN: [MRN] was seen by a pharmacist on [Date Seen] to review and document pre-admission medications. A Best Possible Medication History (BPMH) was completed on [date BPMH completed].

MEDICATION ALLERGIES: (From the Electronic Patient Record (EPR)
[No medication Allergies]

SOURCE(S) of MEDICATION HISTORY:
[Source 1]
[Source 2]

PRE-ADMISSION MEDICATIONS:

Prescription Medications:
- [Medication 1 dose route frequency]
- [Medication 2 dose route frequency]
- [Medication 3 dose route frequency]
- [Medication 4 dose route frequency]

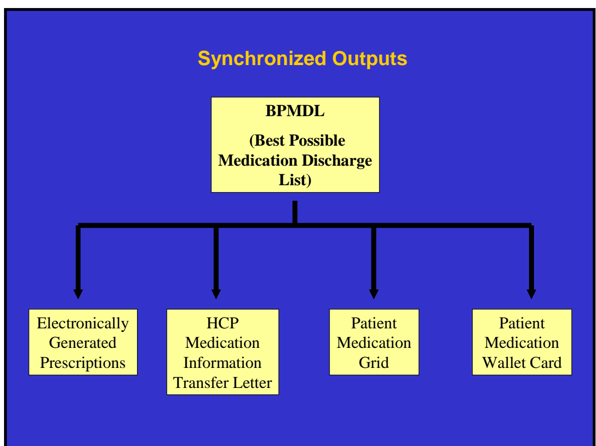
Clarifications/Other Issues:
[Issues]
[Issues]
[Issues]
[Issues]

Other Medications:
- [Other Med 5 dose route frequency]
- [Other Med 6 dose route frequency]

Clarifications/Other Issues:
[Issues]
[Issues]

Community Pharmacy Information: [Community Pharmacy Info]

Additional Clarifications /Issues:



Electronically Generated Prescription

University Health Network

Date: 15-November-2005
Patient Name: Fork, Knife
Patient Address: 123 Some Street, Toronto, ON, M5B 2R4
Patient Phone #: (416) 555-1234

Hospital Discharge Prescriptions

#	Medication	Dose	Route	Frequency	Qty	Rpts	LU code
1	Ferrous Gluconate	300mg	PO	TID	90	0	
2	Omeprazole	40mg	PO	Daily	30	1	295
3	Ciprofloxacin	500mg	PO	BID	14	0	336

Qty= Quantity Rpts= Repeats LU code= Limited Use code

Physician Name: ____________________
CPSO Number: ____________________
Physician Phone #: ____________________
Physician Signature: ____________________

Please contact family physician for repeats.

Summary of Medication Allergies:
Penicillin - Hives

Summary of Medication Changes Since Admission:

New Medications:
- Ferrous Gluconate 300mg PO TID
- Omeprazole 40mg PO daily
- Ciprofloxacin 500mg PO BID

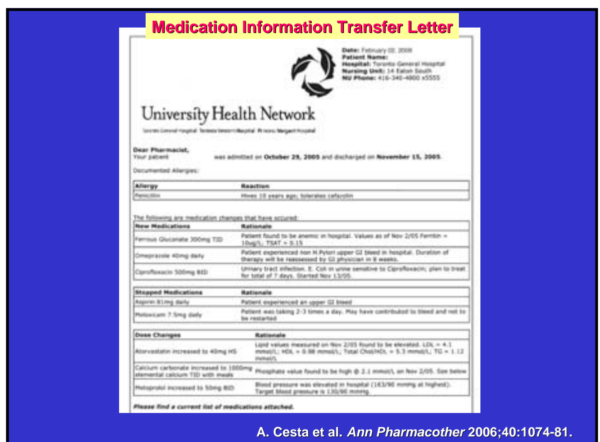
Discontinued Medications:
- Asprin 81mg PO daily
- Meloxicam 7.5mg PO daily

Adjusted Medications:
- Atorvastatin increased to 40mg PO QHS
- Calcium carbonate increased to 1000mg elemental calcium PO TID CC
- Metoprolol increased to 50mg PO BID

Unchanged Medications to be Continued:
- Calcitriol 0.25mcg PO daily
- Darbepoetin 60mcg SC qFriday
- Docusate sodium 100mg PO BID
- Ramipril 5mg PO daily
- Acetaminophen 325 - 650mg PO q4h PRN

Additional Comments:
E.g. Section 8 filled for xxx drug.

An inpatient pharmacist helped to prepare this prescription.



Medication Information Transfer Letter

University Health Network

Date: February 02, 2008
Patient Name:
Hospital: Toronto General Hospital
Nursing Unit: 14 Eaton South
NU Phone: 416-340-4800 x5555

Dear Pharmacist,
Your patient was admitted on **October 29, 2005** and discharged on **November 15, 2005**.

Documented Allergies:

Allergy	Reaction
Penicillin	Hives 10 years ago; tolerates cefazolin

The following are medication changes that have occurred:

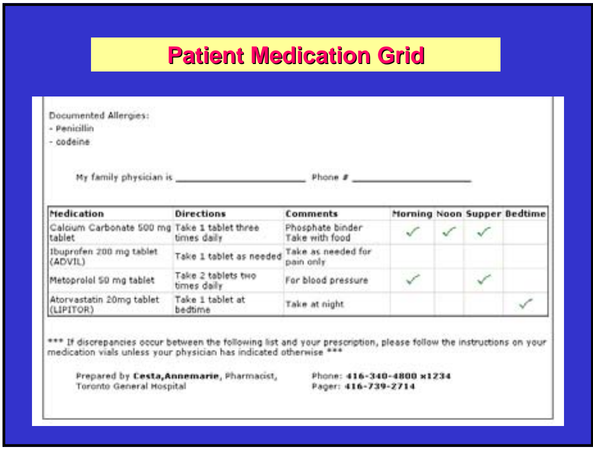
New Medications	Rationale
Ferrous Gluconate 300mg TID	Patient found to be anemic in hospital. Values as of Nov 2/05 Ferritin = 10ug/L; TSAT = 0.15
Omeprazole 40mg daily	Patient experienced non H.Pylori upper GI bleed in hospital. Duration of therapy will be reassessed by GI physician in 8 weeks.
Ciprofloxacin 500mg BID	Urinary tract infection. E. Coli in urine sensitive to Ciprofloxacin; plan to treat for total of 7 days. Started Nov 13/05.

Stopped Medications	Rationale
Aspirin 81mg daily	Patient experienced an upper GI bleed
Meloxicam 7.5mg daily	Patient was taking 2-3 times a day. May have contributed to bleed and not to be restarted

Dose Changes	Rationale
Atorvastatin increased to 40mg HS	Lipid values measured on Nov 2/05 found to be elevated. LDL = 4.1 mmol/L; HDL = 0.98 mmol/L; Total Chol/HDL = 5.3 mmol/L; TG = 1.12 mmol/L
Calcium carbonate increased to 1000mg elemental calcium TID with meals	Phosphate value found to be high @ 2.1 mmol/L on Nov 2/05. See below
Metoprolol increased to 50mg BID	Blood pressure was elevated in hospital (163/90 mmHg at highest). Target blood pressure is 130/80 mmHg.

Please find a current list of medications attached.

A. Cesta et al. *Ann Pharmacother* 2006;40:1074-81.



Patient Medication Grid

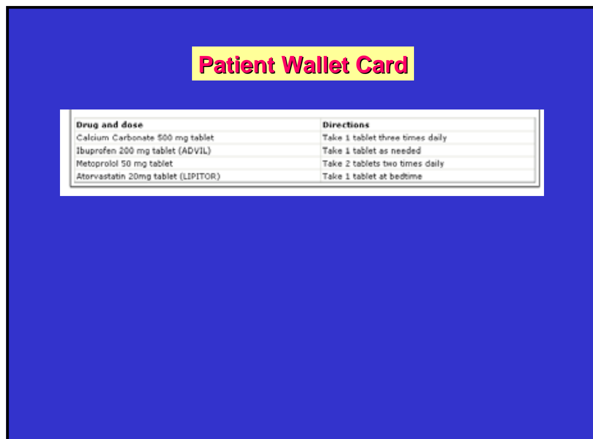
Documented Allergies:
- Penicillin
- codeine

My family physician is ____________ Phone # ____________

Medication	Directions	Comments	Morning	Noon	Supper	Bedtime
Calcium Carbonate 500 mg tablet	Take 1 tablet three times daily	Phosphate binder Take with food	✓	✓	✓	
Ibuprofen 200 mg tablet (ADVIL)	Take 1 tablet as needed	Take as needed for pain only				
Metoprolol 50 mg tablet	Take 2 tablets two times daily	For blood pressure	✓		✓	
Atorvastatin 20mg tablet (LIPITOR)	Take 1 tablet at bedtime	Take at night				✓

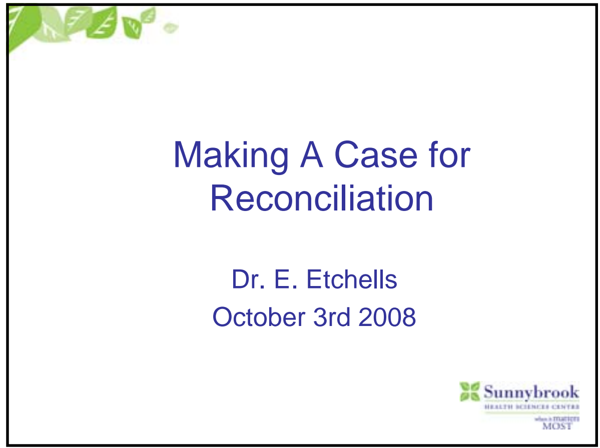
*** If discrepancies occur between the following list and your prescription, please follow the instructions on your medication vials unless your physician has indicated otherwise ***

Prepared by **Cesta,Annemarie**, Pharmacist, Toronto General Hospital
Phone: **416-340-4800 x1234**
Pager: **416-739-2714**



Patient Wallet Card

Drug and dose	Directions
Calcium Carbonate 500 mg tablet	Take 1 tablet three times daily
Ibuprofen 200 mg tablet (ADVIL)	Take 1 tablet as needed
Metoprolol 50 mg tablet	Take 2 tablets two times daily
Atorvastatin 20mg tablet (LIPITOR)	Take 1 tablet at bedtime



Get Local Data

1. Inclusion criteria
2. Consecutive eligible patients
3. Measures:
   1. How many patients screened for eligibility?
   2. How many eligible patients reconciled?
   3. Errors detected by reconciliation

Get Local Data

- 167 admissions/3 weeks
- 127 (77%) screened
- 86/127 high risk

- Of high risk patients (n=86)
  - 75% reconciled
  - 11% not reconciled for a reason
  - 17% missed

Get Local Data

- For high risk patients who were reconciled
  - 46% had at least one error (unintentional discrepancy)
- Many potentially serious errors
  - Dilantin 300 mg tid, instead of od
  - Warfarin 4 mg daily, instead of alt. days
  - Diltiazem CD 240 mg po bid, instead of od

Make Your Value Pitch

- One preventable ADE event per 7 'close calls' (potential ADE)
  - Bates DW, J Gen Intern Med 1995;10:199-205.

- We are preventing about 2 ADEs/month

	Bed Days Saved/yr	Direct Costs Saved/yr
Low	35	$39,000 USD
Medium	**82**	**$84,330 USD**
High	144	$288,000USD

- Wiffen P. June 2002 www.ebandolier.com
- Am J Health Syst Pharm. 2001 Jun 15;58(12):1126-32.
- Bates DW, JAMA 1997;277:307-11
- Classen DC JAMA. 1997 Jan 22-29;277(4):301-6.

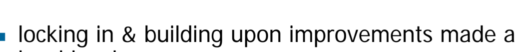
Sunnybrook HEALTH SCIENCES CENTRE

Sustaining & Spreading Local Improvements in Medication Reconciliation

Kim Streitenberger
Team Leader, Quality Program, Pediatric Intensive Care Unit
Department of Critical Care Medicine
The Hospital for Sick Children
National Medication Reconciliation Faculty

October 2, 2008

SickKids



What Is Sustainability?

- locking in & building upon improvements made at local level
- changes tested using PDSA cycles have been completed; intervention fully implemented in pilot area
- local improvements must be sustained over time before they are spread

Institute for Healthcare Improvement
Sustainability & Spread GSK, 2006

SickKids

What Is Spread?

- actively disseminating best practice & knowledge developed during initial pilot & implementing it in every available care setting within a system
- build on learning from pilot area & apply it to other care areas

Institute for Healthcare Improvement
Sustainability & Spread GSK, 2006

SickKids

Practical Tips to Sustain Med Rec

- consider sustainability & spread from the moment you start developing the med rec process in your pilot area
- consider change fatigue & competing local & corporate initiatives
- embed intervention in existing processes e.g. med rec form doubles as order form

SickKids

Practical Tips to Sustain Med Rec cont'd

- identify frontline med rec champions to provide direct implementation support e.g. prompt staff, monitoring & managing compliance, staff education, sharing results, facilitation of process at point of care
- make it difficult for people to revert to "old ways" of doing things
- provide visible leadership support
- share results with patients, families & staff

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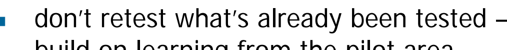

Practical Tips to Spread Med Rec

- don't retest what's already been tested – build on learning from the pilot area
- consider spreading to key intake areas first e.g. surgical preadmit clinic, ED
- consider admission, transfer & discharge processes from patient flow perspective

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Practical Tips to Spread Med Rec

- develop a formalized spread plan including measurement, education & communication strategies
- consider changes needed to infrastructure, tools & resources early on – one size doesn't always fit all!
- assess unit readiness & prioritization for spread

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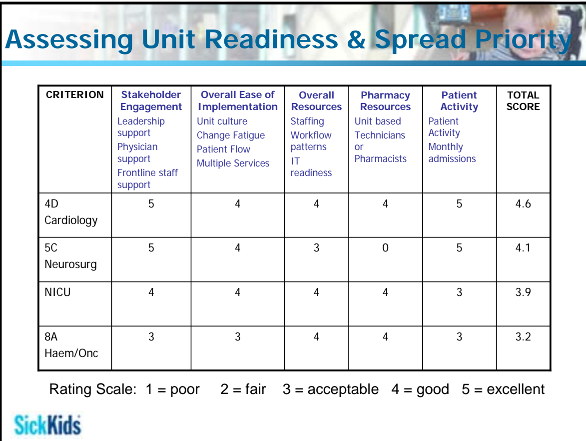
Assessing Unit Readiness & Spread Priority



CRITERION	Stakeholder Engagement Leadership support Physician support Frontline staff support	Overall Ease of Implementation Unit culture Change Fatigue Patient Flow Multiple Services	Overall Resources Staffing Workflow patterns IT readiness	Pharmacy Resources Unit based Technicians or Pharmacists	Patient Activity Patient Activity Monthly admissions	TOTAL SCORE
4D Cardiology	5	4	4	4	5	4.6
5C Neurosurg	5	4	3	0	5	4.1
NICU	4	4	4	4	3	3.9
8A Haem/Onc	3	3	4	4	3	3.2

Rating Scale: 1 = poor 2 = fair 3 = acceptable 4 = good 5 = excellent

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Final Words of Wisdom

DO NOT SPREAD WHAT ISN'T WORKING!

You need evidence of improvement before spreading – measurement is the key!

"Today's financial report is short and sweet-- we had money, now we don't."

SickKids

Resources

- IHI 100K Lives GSK: Sustainability & Spread, 2006
- Nolan et al, Using a framework for spread: the case of patient access in the veterans health administration, Joint Commission Journal on Quality & Patient Safety, 31:6, June 2005.
- NHS Modernisation Agency, Improvement leaders' guide to sustainability & spread. http://www.modern.nhs.uk/improvementguides/sustainability/fw.html

SickKids

Canadian Patient Safety Week—raising awareness of patient safety issues

During the week of September 29 to October 4, hundreds of healthcare organizations and frontline professionals from across the country exhibited their commitment to patient safety by carrying out activities and events in their provinces, regions, communities and organizations to help raise awareness of patient safety issues – in particular medication reconciliation – the focus of this year's Canadian Patient Safety Week (CPSW).

Medication errors are said to affect at least 1.5 million Canadians per year. According to the Canadian Institute for Health Information (CIHI), one in ten patients receive the wrong medication, or the wrong dose while in hospital.

"The theme of the fourth annual national campaign – *Knowledge is the Best Medicine. Ask. Talk. Listen.* – focused on sharing safety advancements with healthcare providers, patients and their families," says Phil Hassen, CEO of the Canadian Patient Safety Institute. "The goal of CPSW is to encourage patients to become involved by speaking up and asking more questions, communicating with healthcare providers, and understanding the important role they play in providing accurate information about their current medications."

Officially launched at St. Paul's Hospital in Vancouver, CPSW saw hundreds of activities and events held across the country, including everything from patient safety talks and displays within organizations and facilities, patient safety quizzes for staff and patients, information booths in public locations such as malls, and vigils for patients who were affected by adverse events. Several news stories ran in the media, and articles on CPSW were included in many organizational newsletters.

"We've really seen a groundswell of interest and participation in CPSW and patient safety initiatives across the country," notes Hassen. "This is the fourth year for the campaign, and each year we are seeing the number of individuals and organizations who register as CPSW Leaders and those who want to be involved growing steadily. Everyone wants to do better and provide the safest care possible, and I think this is evident through the involvement in campaigns and initiatives such as CPSW."

Phil Hassen, CEO, CPSI; Dianne Doyle, President and CEO, Providence Health Care; and Fruzsina Pataky, Regional Medication Safety Coordinator at Vancouver Coastal Health-Providence Health Care Pharmacy Services launch Canadian Patient Safety Week in Vancouver, October 2008

Another of CPSI's initiatives, *Safer Healthcare Now!*, has over 1,000 healthcare teams representing more than 270 healthcare organizations, participating in one or more of ten targeted interventions to reduce the number of deaths and injuries related to preventable adverse events. This quality improvement initiative has engaged over 350 healthcare teams across Canada in medication reconciliation interventions to reduce adverse events in acute and long-term care facilities. A pilot project is also being launched in home care settings in conjunction with CPSW. The goal is to build awareness around the frequency of adverse drug events within home care settings and to increase the home care teams responsiveness and involvement in the pilot.

As part of CPSW 2008, CPSI partnered with the Healthcare Insurance Reciprocal of Canada (HIROC) and Canada's Research-Based Pharmaceutical Companies (Rx&D) to develop radio public service announcements, which aired throughout Canadian Patient Safety Week. This year six provinces also signed on to purchase airtime for the PSA.

Planning has already begun for next year's Canadian Patient Safety Week. Stay tuned to CPSI's website (www.patientsafetyinstitute.ca) in the coming months for further information about how you can become involved.

Canadian Patient Safety Week
focuses on medication reconciliation

The Canadian Patient Safety Institute is pleased to announce that the fourth annual **Canadian Patient Safety Week (CPSW)** will take place **September 29th - October 4th** with the theme focused on medication reconciliation:
Knowledge is the Best Medicine. Ask. Talk. Listen.

The goal of this week is to raise awareness of patient safety issues, and programs and projects related to medication reconciliation happening across Canada, nationally, provincially, regionally and at local organization levels. The week also aims to encourage patients and their families to be involved in their own healthcare by knowing their medications, keeping records of them, and sharing accurate medication information with all of their healthcare providers.

According to the Canadian Institute for Health Information (CIHI), one in nine patients receive the wrong medication or wrong dose. Approximately 50 per cent of Canadian patients have at least one medication error upon admission to hospital and about 39 per cent of these errors have the potential to cause moderate to severe harm.[1]

"One of the most important actions patients can do to help ensure they get the best care possible is to keep an updated list of their medications (both prescription and non-prescription drugs) and to always take this list with them when they visit a healthcare provider," says Phil Hassen, CEO of the Canadian Patient Safety Institute. "If a patient is unable to keep this list updated, having an advocate, such as a family member be aware of the medications they are taking and keeping an updated list for them is very important."

CPSW's central objective is to put patient safety on the country's radar screen to support patient safety efforts underway in Canada. To that end, during the week – the only designated Canadian week of its kind – a focus will be on sharing what safety advancements are happening across the country with healthcare providers, patients and their families.

The *Safer Healthcare Now!* campaign medication reconciliation (MedRec) intervention is being implemented in acute and long-term care faciliites across the country.

It begins with creating a complete and accurate medication list (Best Possible Medication History - BPMH) of medications that patients are currently taking and comparing the list to medication orders at transition points (e.g. admission, transfer and discharge), in order to ensure that all changes are intentional and communicated effectively. Over 350 teams are enrolled in the medication reconciliation intervention and are developing strategies to improve communication. The logical next phase is to engage patients, as they are the only constant at each transition point.

"We hope that this year's CPSW campaign will increase awareness of and involvement in medication reconciliation," says Marg Colquhoun of the Institute for Safe Medication Practices Canada (ISMP Canada) and the intervention lead for medication reconciliation. In one Canadian teaching hospital, where formal medication reconciliation was not performed, Forster and others[2] found that 23 per cent of 328 discharged patients had an adverse event; 72 per cent of which were adverse drug events. Medication reconciliation addresses these types of adverse events and has the potential to prevent clinically significant harm. The campaign and Canadian Patient Safety Week provides people with tools they can use to improve medication safety at transition points in patient care."

Over 100 healthcare organizations and frontline professionals from across the country have already signed up to help promote CPSW and share information about medication reconciliation within their communities. Enthusiasm for the event is growing.

To assist those involved in making the week successful in their local area and organization, the Canadian Patient Safety Week website, www.patientsafetyweek.ca has been populated with tools and resources, with more added weekly as the event approaches.

To find out more about CPSW or to register as a leader, please visit www.patientsafetyweek.ca *or send an email to* CPSW@cpsi-icsp.ca

References:

[1] Cornish PL, Knowles SR, Marchesano R, Tam V, Shadowitz S, Juurlink DN, Etchells EE. Unintended medication discrepancies at the time of hospital admission *Archives of Internal Medicine.* 2005; 165 (4): 424-429. Full text available from: http://archinte.ama-assn.org/cgi/content/full/165/4/424

[2] Forster AJ, Clark HD, Menard A, Dupuis N, Chernish R, Chandok N, et al. Adverse events among medical patients after discharge from hospital. CMAJ 2004;170(3):345-349

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Backgrounder

About Canadian Patient Safety Week

Canadian Patient Safety week is an annual event to keep the issue of patient safety at the forefront in Canada. It is designed to raise awareness and increase dialogue about patient safety issues, related programs and projects happening across Canada. First launched in 2005 and held each Fall, Canadian Patient Safety Week is an initiative of the Canadian Patient Safety Institute. For more information, visit www.patientsafetyweek.ca

About the Canadian Patient Safety Institute

The Canadian Patient Safety Institute (CPSI) was established in 2003 as an independent not-for-profit corporation, operating collaboratively with health professionals and organizations, regulatory bodies and governments to build and advance a safer healthcare system for Canada. CPSI performs a coordinating and leadership role across health sectors and systems, promotes leading practices and raises awareness about patient safety by working in collaboration with partners, patients, their families and the general public. For more information, visit www.patientsafetyinstitute.ca

Safer Healthcare Now! (SHN)

Safer Healthcare Now! and its partner patient safety campaign in Quebec – *Together, Let's Improve Healthcare* – is a pan-Canadian initiative established to reduce adverse events in healthcare settings. The campaign is committed to assist healthcare organizations implement ten targeted interventions. Each intervention has an evidence-base and two focus on preventing adverse drug events through medication reconciliation in different settings: acute care and long term care (LTC).

Currently, *Safer Healthcare Now!* has over 1,000 teams representing more than 270 organizations participating in one or more of ten targeted interventions. Over 350 healthcare teams across Canada are involved in medication reconciliation interventions.

The Medication Reconciliation Interventions involve healthcare professionals obtaining a complete and accurate list of a patient's home medications (name, dosage, frequency, route), comparing the physician's admission, transfer and/or discharge orders to that list, bring discrepancies to the attention of the prescriber and ensure changes are made to the orders, when appropriate. This complete and accurate list is called the Best Possible Medication History or BPMH. For more information, visit www.saferhealthcarenow.ca

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Patient Safety Facts

- The Canadian Adverse Events study identified that 7.5% of patients admitted to a Canadian hospital experience adverse events. [1]
- The rate of adverse events in other countries ranges from 2.9-16.6 %. [2]
- The most common types of adverse events are:
    - Events related to surgical procedures (34%).
    - Medication or fluid-related events (24%). [1]
- The Canadian Institute for Health Information (CIHI) says:
    - One in 10 patients receives the wrong medication or wrong dose.
    - One in 10 adults contracts infection in hospital. [3]
- There are more deaths after experiencing adverse events in hospital than deaths from breast cancer, motor vehicle and HIV combined.
- As many as 9,250 to 23,750 people died in Canadian hospitals as a result of a preventable adverse event. [1]
- 37% of adverse events were determined to be preventable. [1]
- 23% (study of 328 patients) experienced at least one adverse event after discharge
    - 72% of these adverse events were related to medications [4]

[1] Baker, G. Ross, Norton, Peter G., Flintoft, Virginia. The Canadian adverse events study: the incidence of adverse events among hospital patients in Canada. *CMAJ*. 2004; 170 (11): 1678-1686.
[2] Hoffman, Carolyn, Beard, Paula, Yu, Dominique, Dingwall, Orvie. *Building a safer system: the Canadian Adverse Event Reporting and Learning System Consultation Paper.* Edmonton, AB: Canadian Patient Safety Institute; 2008 July. http://www.patientsafetyinstitute.ca/news/CAERLS.html
[3] D. Gravel, A. Matlow, M. Ofner-Agostini, M. Loeb, L. Johnston, E. Bryce, M. L. Sample, V. R. Roth, C. Goldman, G. Taylor and the Canadian Nosocomial Infection Surveillance Program, "Point Prevalence Survey of Health Care—Associated Infections Within Canadian Adult Acute-Care Hospitals," *Journal of Hospital Infection* 66 (June 18, 2007): pp. 243–248.
[4] Forster AJ, et al. CMAJ 2004;170(3):345-349

Knowledge is the Best Medicine. Ask. Talk. Listen.

Tips to ensure your medication safety:

- **Ask** your doctor, nurse or pharmacist questions about your medications. Write down questions in advance of your appointment and take notes when meeting with healthcare providers.
- **Ask** for medication changes, discharge date and instructions to be sent to your family doctor if you have been hospitalized.
- **Talk** about previous treatments or surgeries, current prescriptions or any other health care concerns with your healthcare provider.
- **Talk** about your medications. Bring an up-to-date list of all your medications, or bring them with you to your appointment.
- **Talk** about any other doctors or healthcare professionals you are receiving treatment from.

- **Talk** about any adverse reactions or allergies to previous medications.
- **Talk** to you pharmacist to ensure the medication dispensed in the one prescribed for your condition.
- **Talk** to your healthcare provider at the first sign of any discomfort or something that doesn't feel "quite right".
- **Listen** to your doctor or healthcare professional and if you do not understand what they are saying, tell them and ask further questions for clarification.
- **Listen** and keep a medical journal providing detail on your treatment and care.
- Bring someone with you to **listen** for you. Family members or other care providers can ask important questions that could assist in future decisions about your care.

Top Five: Tips for Patients

(Reference: ISMP Canada – www.ismp.org)

At Home:
Make a list of medications you are taking:
Name, dose, how often you take them
Change and update your list
List your medication/food **allergies**, over the counter (non-prescription) medications, vitamins, nutritional supplements or herbal products

Keep medications in their original containers
Many pills look alike
Read the label every time you take a dose to double check
Avoid storing medications in the bathroom cabinet or direct sunlight
Store medications where children can't reach them
Don't chew, crush or break capsules unless instructed

In Hospital:
Take your medications/lists when you go to hospital
Healthcare professionals will need to know what you are taking
Tell healthcare professionals you want to know the names of each medication and the reasons you are taking them
This way you will know to ask questions which may prevent errors
Look at all medicines before you take them
Do not let anyone give you medications without checking your **hospital ID bracelet** every time

Discharge medication review
When you are ready to go home have a doctor, nurse or pharmacist review medications with you

At the doctor's office:
Take your medication list for every doctor's visit

Ask your doctor to explain what is written on any prescription, including the drug name and how often you should take tem (this will allow you to double check at the pharmacy)
Tell you doctor you want the **purpose of the medication** written on the prescription – Knowing the purpose allows you and your pharmacist to double check/avoid look alike drug names
Advise your pharmacist about any **samples** (will allow for checks for drug interactions)

Why medication reconciliation works – some anecdotal stories:

The Saskatchewan Health Pharmaceutical Information Program (PIP) contains four months of prescription fills for all Saskatchewan residents. Providers in Saskatchewan and other provinces are finding this type of database to be an excellent foundation and source of information when preparing a best possible medication history (BPMH).

What healthcare providers in one region have found is that patients are not taking 25 to 40 per cent of their prescribed medications included in the PIP. When asked if they have told their doctor about not taking some of their medications, the common response is "*No, they don't ask,*" or "*No, I don't want to insult them.*" Patient-directed changes are addressed and resolved appropriately with medication reconciliation.

A patient underwent heart bypass surgery and had complications post-operatively, which resulted in an extended hospital stay (over two months). On discharge, when the patient was being informed about medications to continue at home, she was surprised to learn that tamoxifen, a drug for treatment of breast cancer, had been restarted during her hospitalization. She had completed the tamoxifen therapy two months prior to her surgery. It appears that her medication history had not been verified with her and that a box of pills remained in her bag of medications that she brought to the hospital.

A discharging physician in British Columbia identified the following incident at a hospital that does not have a formal process for medication reconciliation: A patient came from a care home to one hospital and then was transferred to another hospital and then transferred back to the first hospital before being discharged back to their care home. Three medications had not been recorded on the original admission notation as the hospital's medications record only covered the previous three months and consequently, did not capture all medications. On discharge, the physician reconciled the patient's medications. Almost four weeks after the original admission, the following discrepancies were identified: A steroid (prednisone) was stopped abruptly and not given throughout the four week admission; an anti-psychotic (haloperidol) and an anti-depressant (citalopram) were unintentionally not given to the patient during hospitalization; and a beta blocker (bisoprolol) was given, but at twice the pre-admission dose. The patient was put a risk when key medications were abruptly stopped and an incorrect dosage was given.

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Canadian Initiatives for Patients and their Medications

A number of initiatives have been established to address medication reconciliation across the county. For information on these programs visit the following websites:

- British Columbia – BC Health Guide – www.bchealthguide.org
- Manitoba – It's Safe to Ask – www.safetoask.ca
- Manitoba Institute for Patient Safety – www.mbips.ca
- Ontario – MedsCheck – www.medscheck.ca
- Safer Healthcare Now! – www.saferhealthcarenow.ca
- Canadian Patient Safety Institute – www.patientsafetyinstitute.ca
- Institute for Safe Medication Practices Canada – www.ismp-canada.org
- Canada's Research-Based Pharmaceutical Companies (Rx&D) – http://www.canadapharma.org/Pubs/Knowledge/index_e.html
- Also check with your local health authority for information on medication reconciliation.

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CPSW Question and Answers

What is Canadian Patient Safety Week (CPSW)?

Canadian Patient Safety Week is Canada's only national campaign to raise awareness about patient safety and related programs and initiatives. The week was founded in 2005 and is now an annual event to keep the issue of patient safety foremost in the minds of Canadians. It is sponsored by the Canadian Patient Safety Institute as part of its national mandate to build and advance a safer healthcare system for Canadians.

When does CPSW occur?

CPSW occurs in the Fall of every year. In 2008, CPSW is being held during the week of September 29 to October 4.

What is the theme of CPSW 2008?

The theme of CPSW 2008 is Knowledge Is The Best Medicine. Ask. Talk. Listen. The theme is meant to educate patients and healthcare professionals about the patient safety initiative of medication reconciliation. Through medication reconciliation we can improve communication between patients, healthcare providers, families and caregivers.

What is the goal of CPSW?

Generate awareness among healthcare providers across the country
Share information about best safety practices.
Highlight patient safety initiatives and innovations taking place across the country and champions at work and in the community.
Recognize successful patient safety programs and ideas.

Who are the intended audiences?

The message: Ask. Talk. Listen. is aimed at everyone – patients and their families, clients, healthcare providers and the public. Everyone has a responsibility to promote patient safety in healthcare settings and in the community to make sure Canadians grasp the importance of patient safety and their role in it. When it comes to a patients' care, the best decisions are made together.

How do people become involved in CPSW?

Representatives of organizations and facilities across Canada can register as CPSW Leaders on the CPSW website (www.patientsafetyweek.ca)

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In 2008, over 200 organizations from across Canada have registered leaders who will be leading activities and events in their area.

How can healthcare providers help during CPSW and all year round?

Everyone has a role to play in improving communication around patient safety. You can:

- Encourage patients to ask more questions.
- Listen to make sure patients and their families understand what is said.
- Talk with co-workers about patient safety issues.
- Get your co-workers interested and involved in patient safety.
- Become a patient safety promoter/advocate.
- Register as a CPSW Leader to bring the message of patient safety to your organization and community.
- Lead by example and practice sharing knowledge.
- Host a CPSW event.
- Include patient safety discussions at staff meetings.
- Visit www.patientsafetyinstitute.ca and use the tools and information posted online (provide a link from your website if desired)
- Use CPSW products and materials all year round to keep the message of patient safety utmost in people's minds.

Medication Reconciliation

What is medication reconciliation?

Medication reconciliation is a formal process of healthcare providers obtaining a complete and accurate list of each patient's current medications they take at home (including the name, dosage, frequency and route); comparing the physician's admission, transfer and/or discharge orders to that list; and bringing discrepancies to the attention of the prescriber and ensuring changes are made to the orders, when appropriate.

What is a medication error?

A medication error is the failure to complete a planned action as it was intended, or when an incorrect plan is used, at any point in the process of providing medications to patients.

Where to medication errors most often occur?

According to the *Preventing Medication Errors* study (2006), errors happen during prescribing, transcribing, dispensing and administration of medications. Prescribing errors happen about 39 per cent of the time, however, with about 48 per cent of those are intercepted and corrected. Transcribing errors account for 12 per cent of errors,

with 33 per cent of those being intercepted and corrected. Dispensing errors account for 11 per cent of errors, with 34 per cent intercepted and corrected. Administration of medications errors account for 38 per cent of errors, with only two per cent intercepted and corrected.

Why is medication safety important?

Unfortunately, medication errors/mistakes happen. They can happen at home, in hospitals, or at your community pharmacy and sometimes can cause harm. They can result in extended hospital stays, patients returning to hospital after discharge, or the potential for increased sickness and perhaps death.

Are hospitals required to do medication reconciliation?

Medication reconciliation is supported by Canadian accreditation requirements for hospitals. Since 2006, Accreditation Canada's required organizational practices related to medication reconciliation within the Patient Safety Area of Communication include requirements to:

- Employ effective mechanisms for transfer of information at interface points;
- Reconcile the patients'/clients' medications upon admission to the organization, and with the involvement of the patient/client; and
- Reconcile medications with the patient/client at referral or transfer and communicate the patients'/clients' medications to the next provider of service at referral or transfer to another setting, service provider, or level of care within or outside the organization.

What can patients do to increase medication safety?

Patients are not always aware of the necessity for them to know the names of drugs they are taking, frequency, dosage, and management of side effects. There are many situations where the patient is not in a position to provide an accurate list of medications. Statements such as "I take a blue pill," or "I do not remember the name," are common. Alternate sources of information (such as provincial databases, community pharmacy records, etc.) may be available, but may not be readily accessible and still require confirmation with the patient or family. Patients can play a significant role in helping to design a process as well as being active participants in medication reconciliation. The more information patients and healthcare professionals have the more they are able to prevent medication errors. Things you can do as a patient include carrying an up-to-date medication card or list with you at all times and keeping a journal with important information about your care or, if you are unable to do this, asking a family member to keep a journal for you.

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A recent study indicated that two-thirds of consumers don't have a personal set of medical records. How do you create one?

Keep a medical journal that details your doctors, surgeries, treatments and care and develop a medication card or list. To develop a medication list start by making a list of medications that you are taking. Include the name, dose and how often you take them. Next, list your medication and food allergies. Provide detail on any over-the-counter (non-prescription) medications, vitamins, nutritional supplements or herbal products. Finally, remember to change and update your list as required and to take all this information with you when you visit a doctor or go the hospital.

Why is it important to tell your doctor about herbal supplements or vitamins you are taking?

Over-the-counter medications, herbal supplements and vitamins can have an effect on prescription medications. For instance, aspirin or aspirin-containing products have been found to create problems with blood clotting and can result in significant bleeding at the time of surgery. Anti-inflammatory medications may also increase the risk of bleeding.

What are some examples of innovations and initiatives that are underway to address the issue of patient safety?

Safer Healthcare Now!

Safer Healthcare Now! and its partner patient safety campaign in Quebec – *Together, Let's Improve Healthcare* – is a pan-Canadian initiative established to reduce adverse events in healthcare settings. The campaign is committed to assist healthcare organizations implement ten targeted interventions. Each intervention has an evidence-base and two focus on preventing adverse drug events through medication reconciliation in different settings: acute care and long term care (LTC).

Currently, *Safer Healthcare Now!* has over 1,000 teams representing more than 270 organizations participating in one or more of ten targeted interventions. Over 350 healthcare teams across Canada are involved in medication reconciliation interventions.

The Medication Reconciliation Interventions involve healthcare professionals obtaining a complete and accurate list of a patient's home medications (name, dosage, frequency, route), comparing the physician's admission, transfer and/or discharge orders to that list, bring discrepancies to the attention of the prescriber and ensure changes are made to the orders, when appropriate. This complete and accurate list is called the Best Possible Medication History or BPMH. When healthcare professionals partner together with patients for medication reconciliation, medication discrepancies that lead to harm can be reduced.

News release

For Immediate Release: September 25, 2008

Canadian Patient Safety Week 2008

Knowledge is the Best Medicine. Ask. Talk. Listen.

(Vancouver, BC) – Medication errors are said to affect at least 1.5 million Canadians per year. According to the Canadian Institute for Health Information (CIHI), one in ten patients receive the wrong medication, or the wrong dose while in hospital. To raise awareness of patient safety issues, and to highlight the important initiatives and innovations related to medication reconciliation happening across the country, the Canadian Patient Safety Institute today launched its fourth annual Canadian Patient Safety Week (CPSW).

Set to take place from September 29 to October 4, CPSW 2008 will see hundreds of healthcare organizations and frontline professionals promoting and sharing information about medication reconciliation within their organizations and communities. Patients and their families will be encouraged to become involved in their own healthcare by knowing their medications, keeping records of them, and sharing accurate medication information with all of their healthcare providers.

"The theme of the fourth annual national campaign – Knowledge *is the Best Medicine. Ask. Talk. Listen.* – will focus on sharing safety advancements with healthcare providers, patients and their families," states Phil Hassen, CEO of the Canadian Patient Safety Institute. "The week will encourage patients to become involved by speaking up and asking more questions, communicating with healthcare providers, and understanding the important role they play in providing accurate information about their current medications."

"Patients are key partners with healthcare professionals to ensure medications are used safely and appropriately," says Hassen. "One of the most important actions patients can do to get the best care possible is to keep an updated list of their medications (both prescription and non-prescription drugs) and to always take this list with them when they visit a healthcare provider. If a patient is unable to keep this list updated, having an advocate, such as a family member be aware of the medications they are taking and keeping an updated list for them is essential."

Another of CPSI's initiatives, *Safer Healthcare Now!,* has over 1,000 healthcare teams representing more than 270 healthcare organizations, participating in one or more of ten targeted interventions to reduce the number of deaths and injuries related to preventable adverse events. This quality improvement initiative has engaged over 350 healthcare teams across Canada in medication reconciliation interventions to reduce adverse events in acute and long-term care facilities. A pilot project is also being launched in home care settings in conjunction with CPSW. The goal is to build awareness around the frequency of adverse drug events within home care settings and to increase the home care teams responsiveness and involvement in the pilot.

“British Columbia is working hard to reduce preventable medication errors with a number of medication reconciliation initiatives across the province, including the outstanding examples set at St. Paul's Hospital and residential care facilities run by Providence Health Care," said George Abbott, B.C. Minister of Health Services. "Increasing the awareness of medication safety is helping us deliver high-quality, safe patient care."

Medication reconciliation begins with creating a complete and accurate list (Best Possible Medication History – BMPH) of medications that patients are currently taking and comparing the list to medication orders at transition points (admission, transfer and discharge), in order to ensure that all changes are intentional and communicated effectively.

“We hope that CPSW will increase awareness of and involvement in medication reconciliation,” says Marg Colquhoun of the Institute for Safe Medication Practices Canada (ISMP Canada). “*Safer Healthcare Now!* and Canadian Patient Safety Week provides people with tools they can use to improve safety at transition points in patient care.”

“Regrettably, errors do happen,” adds Hassen. “Our goal is to learn from past adverse events in order to prevent them in the future. Our Canadian healthcare professionals are among the best educated and dedicated in the world. The problem principally lies with processes and systems that need to be improved. The Canadian Patient Safety Institute, through initiatives such as Canadian Patient Safety Week, want to raise the awareness about the challenges facing the healthcare system, and educate the patient on how they can actively participate in ensuring a positive experience by being knowledgeable about their own medication usage, and sharing that information with their caregivers.”

As part of CPSW 2008, CPSI, in partnership with Canada’s Research-Based Pharmaceutical Companies (Rx&D) and the Healthcare Insurance Reciprocal of Canada (HIROC), has developed public service announcements for radio broadcast that will air across the country. Several provinces have also signed on to purchase airtime for the PSA.

“Knowledge is the key to better health and we are proud to work with the Canadian Patient Safety Institute as well as health care professionals and all our partners to promote healthy living and the safe and appropriate use of medicines,” said Russell Williams, President of Canada’s Research-Based Pharmaceutical Companies.

“HIROC's continued support for CPSW reflects the growing groundswell of support and participation across all levels and organizations," adds Communications and Marketing Manager of HIROC, Anthony Fuchs. "When one considers that our vision is *Partnering to Create the Safest Healthcare System*, it simply made good sense to support this unique and worthwhile initiative.”

For further information, visit the CPSW website at www.patientsafetyweek.ca. For information on the *Safer Healthcare Now!* medication reconciliation intervention, visit www.saferhealthcarenow.ca

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For more information, contact:
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Canadian Patient Safety Institute
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Appendix
7

Medication Reconciliation Review of the CoP

Using a Web Based Community Of Practice To Drive Change With Medication Reconciliation

Alejandro Montoya[1], Olavo Fernandes[2,3], Virginia Flintoft[4], Margaret Colquhoun[2], Brenda Carthy BSc[2], G. Ross Baker[4]

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The Safer Health Care Now! (SHN) patient safety campaign has developed a web-based tool for centralized inter-team communication called the community of practice (CoP) which enables member collaboration nationally.

Information posted on the CoP for the SHN Medication Reconciliation (MedRec) intervention was systematically evaluated. The number of topics, messages and frequency of access to the discussion groups for each topic was collected from intervention launch in 2006 until July 30th 2008 in order to identify the most important topics of discussion.

There were a total of 18 main folders which contained information covering 232 topics. These were accessed a total of 17,677 times and 708 messages were posted on discussion board over the analysis period. The majority of the topics are located in 5/18 main folders: "Acute Care, Audits & Measurement, Education and Marketing, Tools & Forms, and Staff Role in MedRec". From these 5 folders, 21 discussion topics represented 22.5% of the total activity. It appeared that new teams sequentially accessed the same topics, and posed similar questions to seek solutions at similar intervals from the time of enrolment.

The analysis identified that only selected critical topics guided the foci of the discussion. Similar retrospective analyses of established discussion boards may help future quality improvement teams by informing awareness of key topics to help direct new teams to proactively accelerate their learning curve to achieve success. For intervention coordinators, it further serves to identify genuine team challenges and targets for enhancing campaign educational resources.

APPENDIX

8

SHN!

Newsletter Articles

Medication Reconciliation – Commitment and success

by Marg Colquhoun, ISMP Canada,
Medication Reconciliation Intervention Lead
and Brenda Carthy, ISMP Canada,
Medication Reconciliation Project
Coordinator

For change to be successful, people must believe in the change and commit to its full implementation. Requirements such as Accreditation Canada's Required Organizational Practices (ROP) may be the initial driver, but sustained commitment is critical to the durability of a change. Therefore, we are extraordinarily pleased that in collecting stories from across Canada we find that these healthcare providers embody commitment, perseverance and belief in the value of implementing medication reconciliation.

We are highlighting some of the conversations and learnings from across the country that demonstrates Canadian teams' commitment and success.

> *"I couldn't go back to my old way of practice! When you see the data it is so powerful!"*
>
> *Home care team member, VIHA*

Jo Dunderdale, Program Development & Planning Leader, Home & Community Care Vancouver Island Health Authority leads one of the pilot homecare medication reconciliation teams. "I couldn't go back to my old way of practice! When you see the data it is so powerful!" are quotes from one of their home care team members. Jo goes on to share, "the passion and commitment of clinicians involved is driven by a sense that medication reconciliation has helped communication and everyone realizes it is not one person's job, but together they are making a difference for very vulnerable clients."

> *"Patient stories are the driver of this patient safety initiative."*
>
> *Don Kuntz, Regina*

Don Kuntz, Medication Reconciliation Project Manager, Regina Qu'Appelle Quality Improvement Department recently completed a successful district-wide training session for 550 area nurses on medication reconciliation and how to create a Best Possible Medication History (BPMH). Don believes the Saskatchewan Health Pharmaceutical Information Program (PIP), which contains four months of prescription fills for all Saskatchewan residents, provides an excellent foundation for their BPMH and trained the nurses to use this as a source of information. What the nurses have since identified is that patients are NOT taking 25 to 40 per cent of their prescribed medications included in PIP. This revelation and the supporting data have increased the nurses' commitment to the process as they realize the importance of medication reconciliation in preventing potential adverse events. Don states that, "patient stories are the driver of this patient safety initiative."

When asked whether it has surprised her that it appears that 25 to 40 per cent of patients are not taking their medications as prescribed, Dr. Paula Creighton, Geriatric Medicine Specialist, Glace Bay Hospital Site, says "No, and nine times out of 10 patients have made the right decision." When asking patients if they have told their doctor about not taking some of their medications, the common responses are "No, they don't ask," or "No I don't want to insult them." These patient-directed changes are addressed and resolved appropriately with medication reconciliation.

Paula believes the medication reconciliation champions, who were once sceptical, have an "aha" moment when they pick up discrepancies and resolve them; "You have to see it to believe it." Paula, who has just joined the national medication reconciliation faculty, wants to see more consumer involvement – they need to know what we are doing. She sends copies of her dictation notes to patients and families to get them involved and does medication reconciliation on every patient every day.

> *"Medication reconciliation champions, who were once sceptical, have an 'aha' moment when they pick up discrepancies and resolve them; you have to see it to believe it."*
>
> Dr. Paula Creighton, Glace Bay Hospital

Pauline MacDonald, Performance Excellence Business Unit, coordinates the *Safer Healthcare Now!* interventions for Capital Health, Nova Scotia. In order to address the challenge of spreading medication reconciliation throughout the organization, Capital Health has formed a Spread Steering Committee. They are building success by including representatives from areas who have successfully implemented medication reconciliation and representatives from areas new to medication reconciliation. There are always novice and experienced people at the table. A "resource" team is available to assist each area for about six weeks, in educating staff. A train-the-trainer approach is used to develop subject experts on each unit.

Continued on page 3

Medication Reconciliation

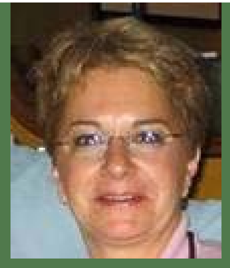
Continued from page 2

Joel Lamoure, Mental Health Pharmacist, London Health Science Centre says, "the work we did in paediatrics contributed to the successful implementation of medication reconciliation in mental health. We analyzed what worked and didn't in paediatrics, proposed a pilot for pre-admission in adult mental health, tried it and it worked." Joel believes that medication reconciliation requires three C's – collaboration, communication and competency development to make the required paradigm shift. Among other requirements is a need for strong corporate leads including management support and a clear "go-to" person.

A patient was admitted to a medical ward with a working diagnosis of community-acquired pneumonia. Appropriate antibiotics and symptom management were ordered and commenced. Two days later the patient suffered a myocardial infarction and it was found that a beta-blocker (carvedilol) had been omitted on admission.

Everyone we contacted provided meaningful patient stories. The value of stories is that they make medication reconciliation real and build commitment to the process.

Medication reconciliation is about communication and a failure in communication has the potential to result in adverse drug events. Implementing medication reconciliation helps healthcare facilities avoid these events. Our Canadian experience shows that we are developing skills, experience and expertise and reducing the potential for adverse drug events from coast to coast!



Marg Colquhoun   Brenda Carthy   Olavo Fernandes
Safer Healthcare Now! Medication Reconciliation Team

Are you one of over 1,000?

Healthcare teams across Canada continue to enroll in the *Safer Healthcare Now!* (SHN) campaign and its partner campaign in Quebec, "*Together, let's improve healthcare safety!*" Currently, 1,021 teams representing 272 organizations from across the country have signed on to implement one or more of the 10 SHN interventions.

To enroll or modify your enrollment, visit www.saferhealthcarenow.ca Click on "sign-up" located on the menu on the left-hand side of the screen.

- If you are new to the campaign, click on "participant sign-up" and follow the directions on the screen
- If you are already enrolled, but would like to add another intervention OR update your organization's information, click on "Login". From there you will require the email and password of your organization's Key Organization Contact (KOC).

For detailed instructions on enrolling or updating enrollment information, click on the link: www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=1516

Teams that sign-up are provided with tools and resources to help them implement the interventions and are invited to join a Community of Practice (CoP), an online interactive forum where participants can share information and discuss new developments.

If you are interested in improving the quality of care you provide, be one in over 1,000 and join the SHN campaign today!

For more information, contact Anne MacLaurin, Project Manager at 1-866-421-6933, or amaclaurin@cpsi-icsp.ca

Fruzsina Pataky — Lighting the beacon for patients and teams to cross boundaries safely

Fruzsina Pataky, B.Sc (Pharm), ACPR, MBA is a passionate ambassador for medication reconciliation (MedRec) on many healthcare fronts and is an active member of the National Medication Reconciliation SHN faculty. When asked what she was most inspired and excited about regarding the intervention's implementation progress, Fruzsina responds, "The great message is that we have not seen a single setting without successful improvement to date no matter where we aim to go … emergency, surgical pre-admission, residential care, and rural, community or academic healthcare centres … medication reconciliation is just a better way of doing things everywhere!"

Fruzsina currently serves as the Regional Medication Safety Coordinator at Vancouver Coastal Health-Providence Healthcare Pharmacy Services. Fruzsina first started working on MedRec interventions in 2005 and explains that, "it affects almost every part of our healthcare system and is fundamental to everything that we do. Patients are genuinely astonished when they learn that it has not been happening already and at how truly fragmented our system can be … it is absolutely essential that we have MedRec to bridge gaps in care across the continuum. What is most gratifying is that once it works, clinicians are so appreciative and ask why we aren't doing it for all our patients."

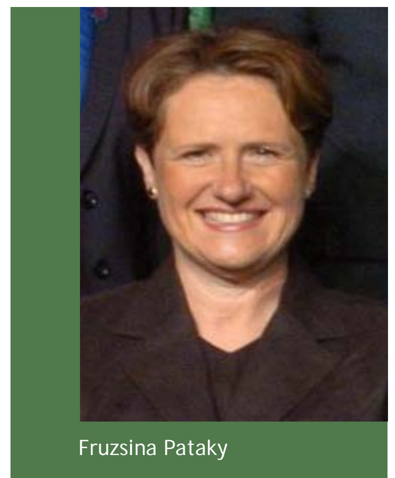
Fruzsina and her teams have successfully pioneered a number of sustainable multidisciplinary practice models in various settings.

In 2007, the Providence Healthcare Residential Care team was awarded the prestigious 3M Healthcare Quality distinction for the Moving In Medication Orders initiative. This innovative program supported effective and safe medication information transfer for patients crossing the boundary from acute to residential care.

A streamlined process was implemented to allow timely communication of acute-care medication discharge plans to admitting physicians and residential care nurses who then collaborated to efficiently prevent and resolve medication discrepancies. Other programs have involved interfacing with the provincial medication database (PharmaNet) to electronically generate pre-printed orders for clinicians to use as a BPMH interview form which then leads directly to admission medication orders.

Another innovation included a form to support patients and clinicians for safe pre-op to post-op transitions in care. Many of the program's sustainable successes are focused on the genuine multidisciplinary collaborative and everyday efforts of nurses and physicians with pharmacists available as consultants.

Fruzsina generously shares her learnings: "It is important that we don't underestimate the complexity of the intervention especially when you start peeling back the layers of why medication discrepancies occur. It is critical that teams are encouraged to persevere and not be frustrated at the first roadblock.



Fruzsina Pataky

One pearl of wisdom is to capitalize on systems that are working and not to try to re-engineer the whole process with extra steps. Identify and point out where there is duplication of effort to find efficiencies."

Fruzsina goes on to explain that, "another gem for success is that leadership support is vital to help remove some of the obstacles. Constantly listening to the frontline is important, as they often have the good ideas and solutions to overcome challenges. Also, it is important to keep tools simple and similar in most areas so clinicians don't have to relearn new systems. Be pro-active and do MedRec concurrently at the time of ordering."

Fruzsina received her undergraduate degree from UBC, followed by a hospital pharmacy residency at Lions Gate Hospital in Vancouver and an MBA from the University of Calgary. She has had extensive experience in Pharmacy services and held leadership positions in multi-site tertiary and community acute-care facilities, residential/long-term care as well as ambulatory and community care. In addition to medication safety, her interests lie in the related fields of process improvement and electronic health records.

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

ISMP Canada Annual Report: Medication Reconciliation Intervention, April 2007 to March 2008

Medication Reconciliation Home Care Faculty and Pilot Teams

SHN! MEDICTION RECONCILITATION IN HOME CARE PILOT PROJECT

Name	Position	Facility
Margaret Colquhoun	SHN! Medication Reconciliation in Homecare Pilot Co-Lead, National Medication Reconciliation Lead *Safer Healthcare Now!*, Project Leader ISMP Canada	ISMP Canada
Catherine Butler	SHN! Medication Reconciliation in Homecare Pilot Co-Lead, National Director of Quality & Risk	VON Canada
Deborah Conrad	SHN! Medication Reconciliation in Homecare Pilot Project Coordinator	VON Canada
Theresa Fillatre	SHN! Atlantic Node Leader	SHN! Atlantic Node
Cynthia Majewski	Executive Director, Quality Health Network	Quality Health Network
Doris Doidge	Project Manager, Data Capture & Reporting for Patient Safety Measures Project ON Node - Safer Healthcare Now!	Quality Health Network
Anne LeMay	Quebec Node Leader	
Tanis Rollefstad	Safety & Improvement Advisor Safer Healthcare Now! Campaign	CPSI – SHN Western Node
Anne MacLaurin	SHN! Project Manager	CPSI
Olavo Fernandes	Clinical Site Leader, Pharmacy, Assistant Professor, Leslie Dan Faculty of Pharmacy Safety Specialist	Toronto General Hospital, UHN University of Toronto ISMP Canada, Toronto, ON
Virginia Flintoft	Project Manager	*Safer Healthcare Now!* Central Measurement Team, University of Toronto

MENTOR/FACULTY

Agency
Saskatoon Health Region Saskatoon SK
Vancouver Island Health, Duncan BC

Pilot Teams

ON Teams	Western Teams	Atlantic Teams
VHA Home Health Care Toronto, ON	**Capital Health Region** Edmonton AB	**Central Health Grand Falls/ Windsor** Gander, NL
St Elizabeth Health Care Markham, ON	**Interior Health Region** Kelowna, BC	**PEI Department of Health** Charlottetown, PEI
Can Care Health Services Toronto, ON	**Vancouver Coastal Health** Vancouver, BC	**VON Cape Breton** Sydney, NS
Para Med Home Health Care London, ON		**VON Lunenburg** Blockhouse, NS
VON Perth/Huron Stratford, ON		**Extra Mural Program** Moncton, NB
VON Thunder Bay Thunder Bay, ON		
VON Middlesex – Elgin London, ON		

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