Medication Reconciliation

ISMP Canada
Semi-Annual Report to CPSI

Safer Healthcare Now!
Medication Reconciliation Intervention

October 2008 to March 2009

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Safer Healthcare Now!

ISMP Canada Semi-Annual Report

Medication Reconciliation Intervention

Key Results for Period October 2008 to March 2009

The Institute for Safe Medication Practices Canada (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 (MedRec) in acute, long term and home care settings through Safer *Healthcare Now!*

Pilot studies were conducted for the home care setting to ensure the processes were successfully tested and learning's will be used to create the MedRec in Home Care Getting Started Kit. Support in the Atlantic Node was provided through a second Long Term Care (LTC) collaborative, and the sharing of new tools and systems ensures effective medication reconciliation in LTC. Acute Care teams continued to ask questions, online and by telephone; request site visits and attend national calls in great numbers.

Between October 2008 and March 2009, a number of key deliverables were accomplished in all sectors. 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

- As this intervention continues to be a priority among healthcare practitioners world-wide, e**vidence is growing and shows that the MedRec process is working in decreasing the potential for Adverse Drug Events** (ADEs) in Canadian healthcare facilities. By reducing *unintentional discrepancie*s we are decreasing the potential for Adverse Drug Events and medication incidents.

- Results show Canadian teams are truly making a difference – the numbers of *unintentional discrepancies* and *undocumented intentional discrepancies* has consistently dropped. See section 'Measurement Results' section for details.

- The stories teams share has demonstrated that we are reducing the potential for patient harm. See section 'Canadian Success Stories' for details.

- The **discrepancy-specific measures** are useful at the beginning of implementing medication reconciliation. After a sustained, dependable process is in place, a process measure becomes the most useful on a regular basis (i.e. the percentage of patients receiving formal medication reconciliation at admission or discharge). Teams are encouraged to report this new measure after they have reached goal for the discrepancy measures for 3 consecutive periods.

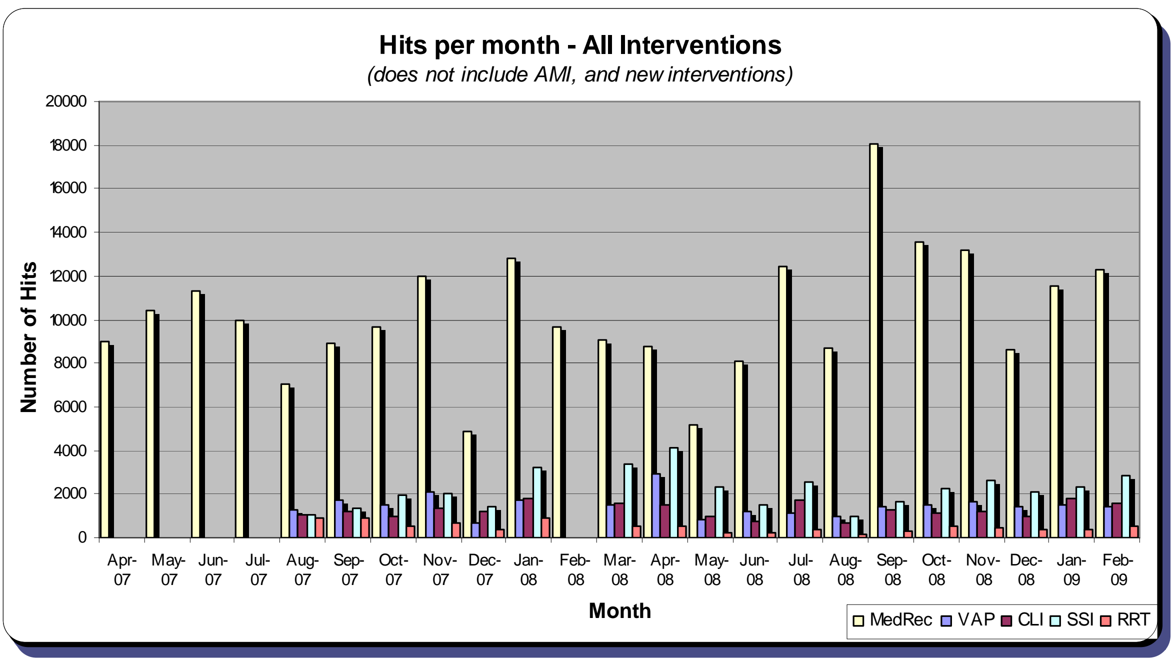
- **The terms** Best Possible Medication History, BPMH, *Undocumented Intentional Discrepancies*, *Unintentional Discrepancies*, Best Possible Medication Discharge Plan, and BPMDP are becoming a common language among healthcare practitioners and their meanings are understood. These terms are being used in Acute Care, LTC and Home Care and are incorporated into the WHO High 5's Getting Started Kit so they will soon become world-wide terminology.

- Canadian **teams continue to be supportive of one another**, sharing information, forms, ideas, successes and failures and continually strengthening the pan-Canadian campaign. This includes Long-Term Care (LTC) and home care teams learning from the work and experience by Acute Care teams.

- ISMP Canada continues to use the knowledge base of the **Pan-Canadian MedRec Faculty** to ensure the focus is consistent with the needs of Canadian healthcare teams. In October 2008 a teleconference meeting of all faculty members was held. The meeting objectives included discussion on:
  - The issue of synchronizing the SHN acute care measures with Accreditation Canada's measures for admission (percentage of patients receiving MedRec at admission) was discussed and approved by the MedRec Faculty. We are currently working with the SHN Central Measurement Team to implement and it was presented to teams at an April 2009 'State of the Nation Call' and will be repeated in the fall of 2009.
  - ISMP Canada continues to work closely with the MedRec Faculty to provide meaningful and practical feedback to Accreditation Canada and ensure clarity on specific areas of Required Organizational Practices (ROPs) and expectations. Several teleconference calls were held to provide input into upcoming modified and new ROPs linked to MedRec for the Emergency Department, ambulatory care and home care.
  - The Faculty agreed on the suggested framework/process for doing medication reconciliation in ambulatory care/community care. This process was discussed with teams at the **April 2009 "State of the Nation Call'** and the May 2009 'Institution Wide Implementation' call. This model and framework was enhanced with learning's from the home care pilot and recent research studies in ambulatory care. An additional national call on this topic is planned for the fall of 2009.
  - MedRec Faculty members are identifying their areas of expertise to ensure CoP responses meet the requirements of teams.

- As of March 2009, the **MedRec Communities of Practice (CoP**) usage continued to grow. This site is one of the most active in the campaign with over 1000 active members and between 8,633 and 18,067 hits per month from October and February 2009. There are numerous engaging and helpful discussion threads. Much of our new knowledge is discussed and spread via this forum. The CoP continues to be one of the major successes of the campaign and sees teams across Canada, from different facility types and healthcare sectors, work together to help one another. This sharing of information, forms, and ideas has helped to strengthen the Canadian campaign. Teams across Canada appear to value the CoP, and to quote a user, "I have found the MedRec CoP an invaluable source for current practice".
  - A poster presentation was created for the April 2009 CPSI Conference in Toronto. This poster summarized the systematic evaluation which was conducted in the summer of 2008 of the MedRec CoP discussion threads. The analysis concluded 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 was useful to identify critical topics, genuine team challenges and targets for enhancing campaign educational resources that may in the future proactively accelerate learning curve of new teams to achieve success. See Appendix 4.
  - The above evaluation identified the importance and need of creating Frequently Asked Questions. This process will begin in April 2009 utilizing the new MedRec CoP (SharePoint version).
  - 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 pan-Canadian teleconference call presentations and agendas, announcements and selected posters. All translated items are posted in both languages as applicable.

- ISMP Canada monitors the discussion boards in the MedRec CoP. ISMP team members answer questions posted by MedRec members or they may forward the question to an appropriate faculty member. The categories and subject matter of discussion threads help us identify topics that would be relevant for our national calls and medication reconciliation presentations at conferences.
- ISMP Canada continues to monitor the MedRec CoP, continually populating it with new items related to medication reconciliation. This often includes conducting literature searches to obtain information from new studies in Canada and around the world.
- To accommodate the transition to the new SharePoint CoP, ISMP Canada performed detailed maintenance on the MedRec CoP. It was hoped that this would make the transition easy for MedRec CoP members. ISMP Canada will continue to listen to the community membership concerns and make adjustments as required. Much of March 2009 was spent helping members log onto the new CoP, guiding them around it, and teaching teams how to set Alerts.



Note: Usage statistics for March 2009 were not available due to the introduction of the new platform for all CoPs.

- **Pan-Canadian teleconference calls** for the MedRec intervention continue to be well attended by healthcare practitioners across Canada. In September 2008 CPSI introduced the concept of using webinar software and since then all MedRec pan-Canadian calls have been delivered using WebEx. This shift has had many trials and tribulations but the end result is that teams are now used to using the system and the attendance of MedRec calls has remained high.
  - ISMP Canada and MedRec was the first intervention to use the new WebEx system. As a result, they continue to assist SIAs and intervention coordinators with scheduling and executing successful calls.
  - The goal is to have one WebEx webinar per month. The topics are chosen based on the needs of Canadian teams and can be Acute Care focused, Long Term Care focused or a combination of both. See Appendix 2 for a list of calls from October 2008 to March 2009.
  - The Home Care Pilot Project has monthly teleconference calls with members of the pilot project.

- **Enrolment in the MedRec Initiative has remained constant.** As of March 2009 the Pan-Canadian MedRec Enrolment Numbers are displayed below

Node/Campaign	Acute Care Teams	Long Term Care Teams	Home Care Pilot Teams
Atlantic	47	8	5
Ontario	156	2	0
Quebec	25	12	7
Western	111	16	3
Total: (425 teams):	**339**	**71**	**15**
CMT numbers (440 teams)	**339**	**88**	**13**

Note: the SHN enrolment numbers and the CMT numbers differ due to multiple reporting within sites or lack of reporting.

- **Assistance in implementing the medication reconciliation process is an ongoing requirement from teams across Canada.** 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 LTC Collaborative, Professional Practice Conference (PPC) and sessions at healthcare facilities as requested. See Appendix 3 for a list of some these workshops and conferences. In addition, many teams often require personal telephone or face-to-face consultations with ISMP Canada team members regarding specific questions or concerns with implementation issues, spread, process or form evaluations.

- **ISMP Canada staff continues to promote the *Safer Healthcare Now!* campaign and the MedRec intervention** at all conferences, presentations and booths in which they are involved 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 (OHA) Health Achieve 2008 conference and all additional conferences to which we are invited. Below is a brief summary of some sessions ISMP Canada staff has attended. See also Appendix 3 for more details.
    - The SHN Atlantic Node held a well-attended LTC MedRec Collaborative that was very successful in supporting teams and promoting spread and collaboration. ISMP Canada was involved in presentations and as a faculty member at all three of the collaborative sessions. The 20+ teams learned about successfully using the QI model, implementing medication reconciliation and measuring success. One team's transfer form from LTC to acute care is fabulous and is now being used in the ISMP Canada/Accreditation Canada presentations across Canada. Sessions were held in September 2008, November 2008 and March 2009.
    - OHA Health Achieve 2008. ISMP Canada manned a booth at the OHA Health Achieve Conference in November 2008. SHN! MedRec information packages including enrolment information, GSKs, one page summaries and posters where distributed to attendees and discussions focused on encouraging enrolment or answering questions in a support role.
    - ISMP Canada 'Advancing Safe Medication Practices Conferences' held in Halifax (November 2008), Regina (January 2009) and Ottawa (2009) had medication reconciliation on the agendas. SHN!

MedRec information packages including enrolment information, GSKs, one page summaries and posters where distributed to attendees.

  - The Ontario Node MedRec in LTC conference included presentations from ISMP Canada staff that attended the conference.

- ISMP Canada assisted CPSI in the organization of **Canadian Patient Safety Week** (CPSW) as the focus was medication reconciliation. This involved recommending and preparing materials for Canadian teams enrolled in the initiative and editing all correspondence as it related to MedRec. Also included:
  - A thorough review of the MedRec CoP to identify tools and resources teams could benefit from;
  - Creation of presentations on the 'patient's role in medication reconciliation', 'Healthcare Practitioner's Role in MedRec', and an overview of Med Cards across the country. See Appendix 4;
  - Review of CPSW media material and provide feedback on appropriateness; identified and confirmed participation of team for media press conference (Vancouver Costal Health);
  - A patient safety week panel discussing the topic 'Overcoming Challenges to Successfully Implement Medication Reconciliation – Crossing Boundaries Safely' was conducted at the University of Toronto and attended by over 80 healthcare practitioners. See Appendix 4;
  - Created the 'Top 10 Tips for Interviewing Patients' poster for distribution at Patient Safety Week. See Appendix 5;
  - ISMP Canada assisted in the creation of educational videos highlighting Canadian teams for the Pan-Canadian Patient Safety Week. These videos along with educational packages and videos created by Canadian teams are posted on the MedRec CoP and/or SHN website.

- The Medication Reconciliation Getting Started Kit for Acute Care Version 2 was downloaded a total of 7,906 times from the ISMP Canada website (www.ismp-canada.org)

Month	Downloads
October 2008	1766
November 2008	1210
December 2008	782
January 2009	1163
February 2009	1466
March 2009	1519
Total	**7906**

ISMP Canada Partnerships

Creating and maintaining partnerships with Canadian organizations has been a contributing factor to the success of the medication reconciliation intervention.

CPSI

ISMP Canada's 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 intervention to maintain its alignment with the pan-Canadian and strategic direction of *SHN!*. Committee/working groups including:

- SHN! Pan-Canadian Steering Committee;
- Education Resource Group;
- CPSW Advisory Group;
- Safety Improvement Advisor Committee;
- Western Collaborative;
- Atlantic Collaborative;
- Home Care Pilot Group.

ISMP Canada has also been involved in:

- Assisting CPSI define the strategic direction and next steps of the *Safer Healthcare Now!* campaign;
- Assistance is/was being provided to CPSI in planning the medication safety component (content and speakers) for the National Forum scheduled at the end of April 2009.

Accreditation Canada

- ISMP Canada has worked with Accreditation Canada initially influencing the Required Organization Practice (ROP) for MedRec and then to ensure the evidence of compliance of Required Organizational Practices (ROPs) as they relate to medication reconciliation are reasonable.
- To assist SHN teams with interpretation of the standards and in meeting these standards ISMP Canada has organized the following:
  - A teleconference call with Accreditation Canada (AC) was conducted in October 2008. This call featured two speakers from AC who discussed the MedRec related ROPs, AC's expectations, and answered questions from teams. The call had over 250 lines proving this topic was of great importance to teams across Canada. There will also be a French version of this call scheduled in June 2009.
  - Between June and October 2009, ISMP Canada and Accreditation Canada will host, 3-day sessions entitled, "Continuing Your Patient Safety Journey through Accreditation." Sessions will be held in Toronto, Quebec City and Fredericton.
    - One focus of these sessions will be the 2009 required organizational practices (ROPs) including those related to medication reconciliation. ISMP Canada will lead a presentation focusing on how to implement medication reconciliation. The presentation will provide an opportunity to share the learning from medication reconciliation teams from across the country.

World Health Organization (WHO), CPSI - High 5's

- Based on the success of the Canadian Getting Started Kit for Medication Reconciliation in Acute Care a team from ISMP Canada was selected by the CPSI and World Health Organization (WHO) to complete a Standard Operating Protocols (SOPs) for 'Assuring Medication Accuracy at Transitions in Care' for the WHO/Joint Commission International High 5's initiative. This exciting international patient safety program has an official team launch in 2009. The goal is to make the High 5's Kit simpler than our acute care GSK and then issue a revised 'kit' for Canadian teams based on this High 5's Kit.

Victorian Order of Nurses

- *SHN!* launched the Home Care Pilot in 2008, which is jointly led by ISMP Canada & VON Canada. Select measures were developed and tailored for the unique and often complex home care patient population. Regular, well-attended national teleconferences have been held and a comprehensive implementation toolkit has been circulated to teams. VON Canada is scheduling personal visits to selected sites to enhance uptake, implementation and spread.

Ontario Ministry of Health and Long-Term Care

- Linking *MedsCheck* to Medication Reconciliation

  In 2008, ISMP Canada developed and delivered a pilot program in Ontario to link the community-based *MedsCheck* program with the SHN-led medication reconciliation programs in hospitals to streamline the medication reconciliation process in the pre-admission clinic for planned surgical admissions. The MedsCheck is a one-to-one pharmacist consultation with patients for approximately 30 minutes once a year, to help them comply with their prescription medications and better understand how the medications interact with each other and other over-the-counter medication they may be taking.

  The goal of this collaborative initiative between hospitals and community pharmacists was to improve the medication reconciliation process for elective surgical patients by asking patients to obtain a *MedsCheck* from community pharmacists prior to their pre-admission clinic appointment. The *MedsCheck* would then to be used to help streamline the best possible medication history (BPMH) taking process in the pre-admission clinic.

  The successes of the initiative included connecting with community pharmacists through a presentation called "Enhancing *MedsCheck*' which included information, tips and tools on how to systematically gather an accurate medication history or BPMH. Through this initiative, ISMP Canada helped to improve the communication between hospitals and community pharmacies to enhance the medication reconciliation process in order to provide seamless care to the patient.

Team Success Stories

Canadian teams have been very successful in implementing MedRec within their facilities. Below is a sample of some of the Canadian MedRec success stories.

- *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 BPMH. They believe the Saskatchewan Health Pharmaceutical Information Program (PIP), which contains 4 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 – 40% 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. "Patient stories are the driver of this patient safety initiative".

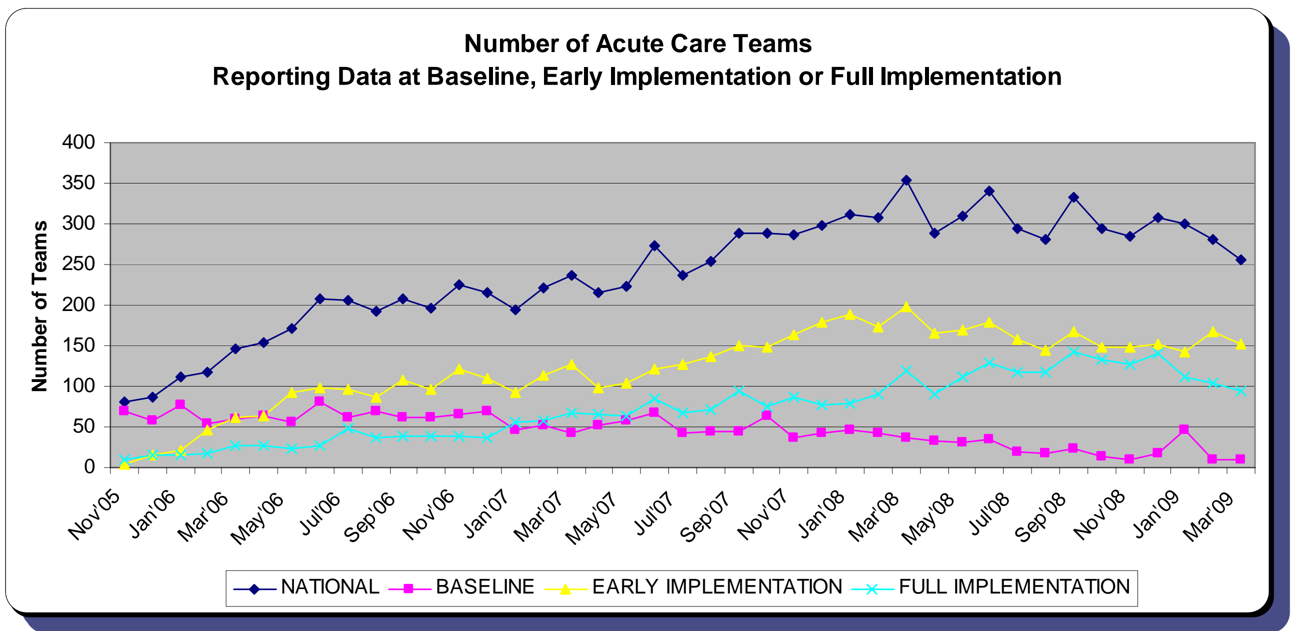
- In order to address the spread challenge, *Capital Health in Nova Scotia* has formed a Spread Steering Committee. They are building success by including representatives from areas who have successfully implemented medication reconciliation and representatives from areas new to medication reconciliation. There are always novice and experienced people at the table. A "resource" team is available to assist each area for about 6 weeks, in educating staff. A train-the-trainer approach is used to develop subject experts on each unit.
- *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".
- With the leadership of an interdisciplinary medication reconciliation taskforce, the *University Health Network (Toronto)* received a National Commitment to Care award for sustained institution-wide admission medication reconciliation started on all wards at its 3 sites as well as research into the patient impact. Clinicians continue to target an increased percentage of patients with formal admission, internal transfer and discharge reconciliation.
- *Vancouver Coastal Health-Providence Healthcare* 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
- An expanded number of hospitals have implemented pharmacy technicians to support patient medication reconciliation. *Ottawa General and Trillium Health Centre* have hired multiple technicians to lead in this role.

Measurement Results

- Pan-Canadian MedRec teams reporting data to the Central Measurement Team, including paediatric teams has **increased from 39% in May 2006 to 86%** in May 2009.

Pan-Canadian MedRec Acute Care Teams reporting data vs. teams enrolled

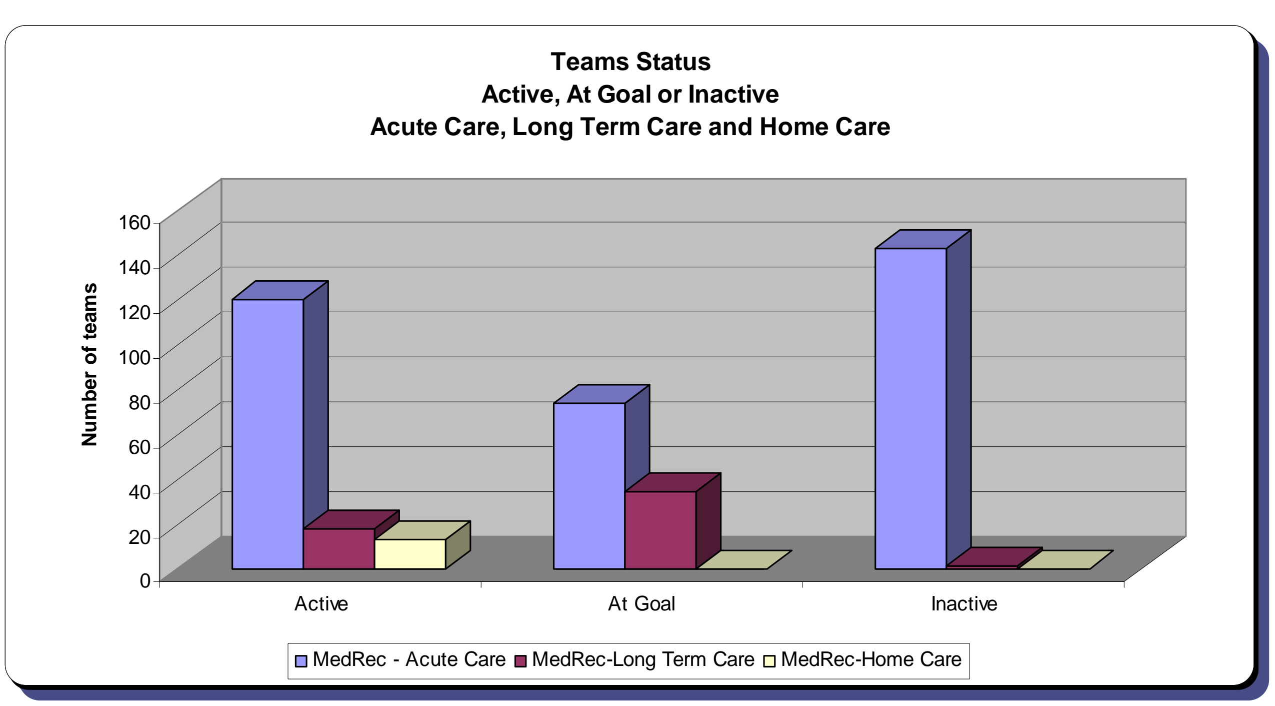
Teams	May '06	May '07	May '08	Oct '08	May '09
Teams Enrolled	118	225	374	361	339
Teams Submitting	46	162	228	333	291
TOTAL	39%	72%	77%	92%	86%



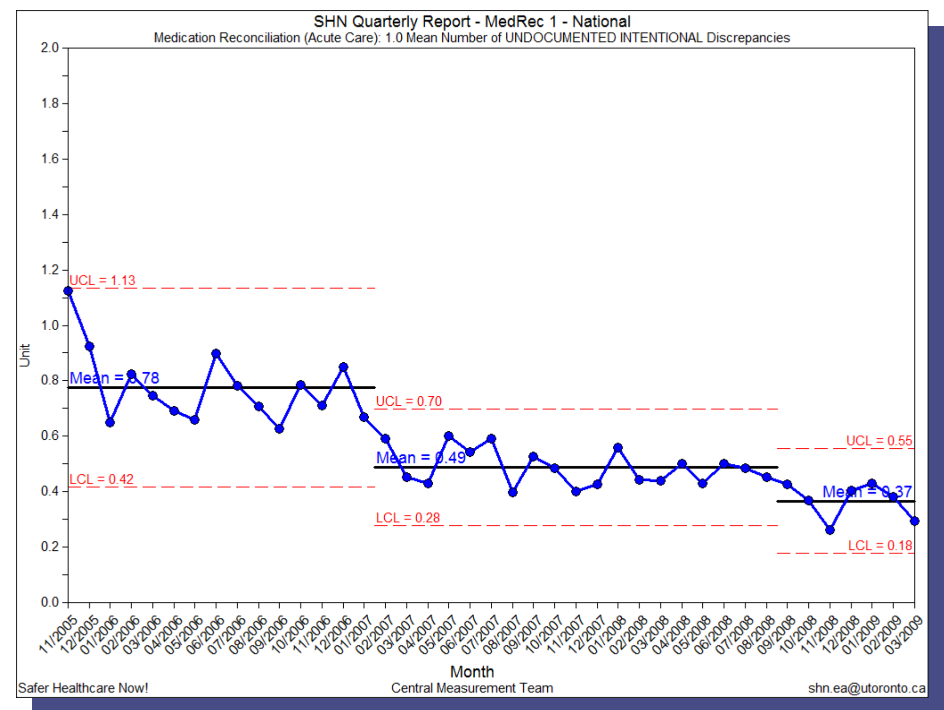
- The activity level of teams submitting data shows that 35% of all acute care teams enrolled in MedRec are actively reporting data. The 42% of all acute care teams that are inactive have been submitting data for at least one measure for the designated intervention however no data has been received for the preceding quarter. The increase in inactive teams in acute care is a result of teams reaching goal, who then stop reporting their data. Out of all acute care teams, 22% have reached their measurement goals and held their gains for 3 consecutive data points in 6 months (9 months for quarterly submitters).

  The activity level of long-term care teams show that 20% of long-term care teams are actively reporting, 39% of teams are at goal, 1% of teams in long-term care are inactive and the remaining 40% of long-term care teams enrolled in the initiative have not yet submitted any data to date.

  There are currently 13 home care teams and the data shows they are all actively reporting data.



Undocumented Intentional Discrepancies



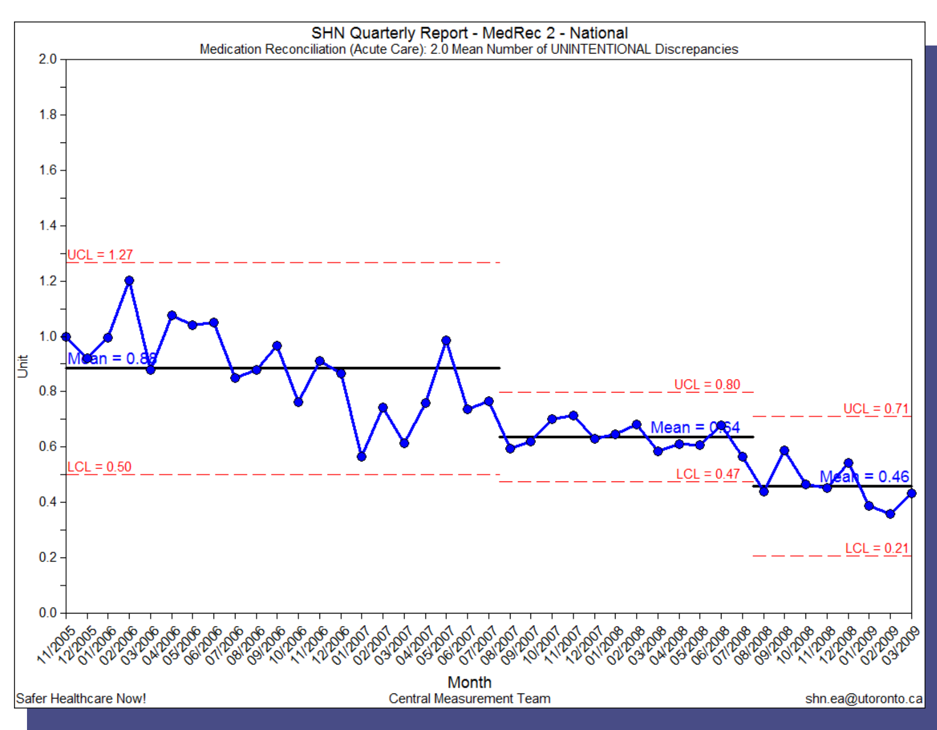
From August 2008 to March 2009, the average rate of *undocumented intentional* discrepancies dropped again to 0.37 from 0.49 and this improvement has been sustained for 7 months.

The mean number of *undocumented intentional discrepancies* has decreased from 0.78 in November 2005 to 0.37 in March 2009.

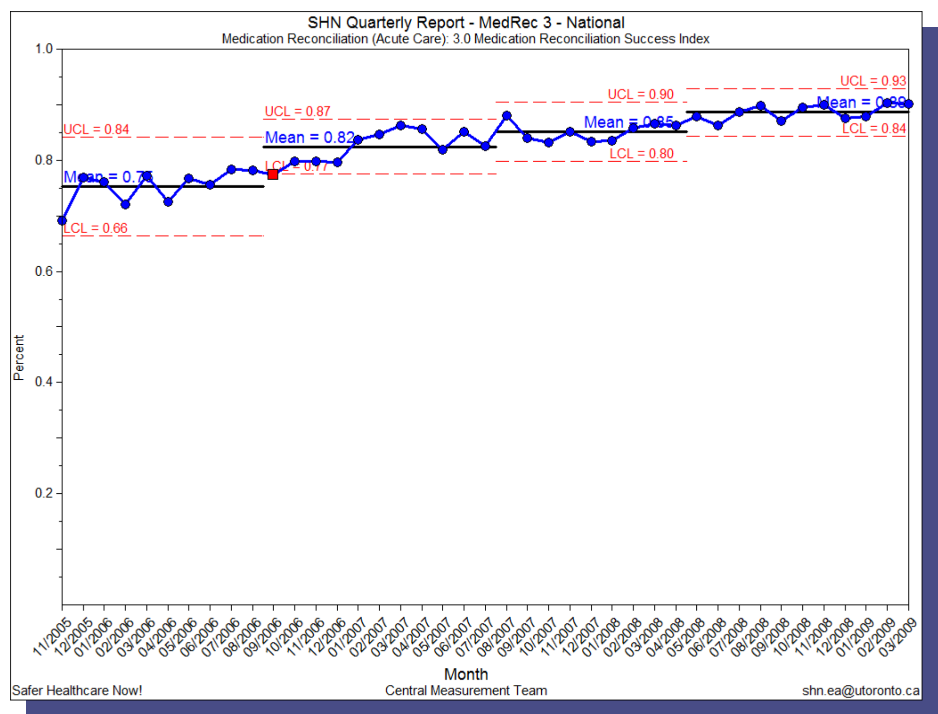
Unintentional discrepancies

The mean number of *unintentional discrepancies* decreased from 0.88 (between November 2005 and June 2007) to 0.64 (between July 2007 and June 2008).

This then decreased to a mean number of 0.46 discrepancies (between July 2008 and March 2009) and this improvement has been sustained for 8 months.



Success Index (Optional Measure)



The MedRec Success Index continues to climb indicating that Canadian teams are being more successful as time goes on.

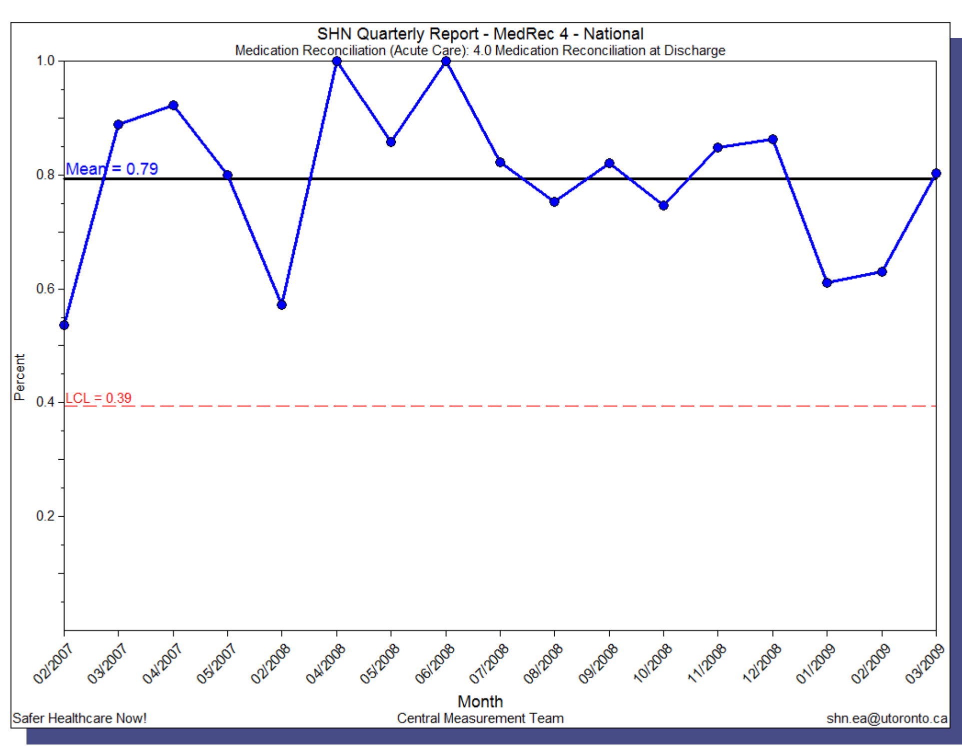
This graph reflects the increase in the success rate of teams over time.

Medication Reconciliation at Discharge

Teams are just beginning to report the MedRec at Discharge measure.

Currently we only have 3 teams who are reporting for this measure.

This chart shows a mean of 79% of their patients have been reconciled at discharge over the past year.



What Worked Well

- WebEx calls were well attended and switching to the next platform did not seem to deter people as the number of participants ranged from 150 lines upwards to over 300 lines. Most pan-Canadian calls profiled teams and successes across the country.
- 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 however this problem will disappear with the new SharePoint CoP. ISMP Canada's goal for the MedRec CoP is to make it as accessible and easy to use as possible.
- National leadership for medication reconciliation continues by supporting nodes and connecting and sharing the work of teams continues to build a pan-Canadian 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 and in some provinces to community pharmacy.
- The Canadian Medication Reconciliation Faculty are quite engaged, are willing to participate in teleconference calls, present at conferences and answer questions on the CoP when requested. The faculty continues to work together via conference calls however, holding a face-to-face meeting would help to re-engage and reconnect members.
- Videos are being created and shared by teams across Canada. Teams from different facilities are using these videos during orientation and for kick-off meeting during the implementation and spread process.
- The learning's from the Western Home Care Collaborative was used for the basis of the MedRec in Home Care Initiative.

Key Next Steps Planned

- Revise the MedRec GSK and make it available to Canadian teams in the fall of 2009. This toolkit will summarize the frequently asked questions, learning's and tools from the past 3 years in a concise, easy to read format. All revisions to the GSK will involved the MedRec Pan-Canadian Faculty and teams as appropriate.
- Collaborate with existing provincial and national associations for healthcare professionals (specifically pharmacy, nursing and medicine) to ensure the transition of support of MedRec is to organizations who are intimately involved in the intervention.
- Co-lead with VON Canada the Home Care pilot and support teams in three nodes. This will involve:
    1. Development of tools and resources to support medication reconciliation in homecare in collaboration with VON Canada. Includes refinement of definitions and process of MedRec in home care.
    2. Development of GSK in Home Care if the intervention is launched officially Canada-wide as part of SHN Network
    3. Ensure coordination and alignment with other medication reconciliation initiatives i.e. acute and long term care
    4. Presentations to teams to support implementation of medication reconciliation
    5. Process schematic for MedRec in Homecare to be developed in collaboration of VON Canada.

- Continue to lead and support to the Medication Reconciliation intervention to include:
    1. Overall coordination and alignment of the medication reconciliation intervention - Acute Care, Long-term Care and Home Care
    2. Continued focus on a comprehensive strategy to address the many needs of medication reconciliation teams in Canada (acute, long term care and home care)
    3. Incorporate the learning's from existing teams into new tools and strategies for continuing development, spread and addressing barriers and issues in all environments to include:
        - Poster - Introduction to MedRec
        - BPMH Interview Guide
        - SHN videos - create new videos if funds available
        - Institution-wide Report Card with Step-Wise Implementation Process
        - Train the trainer sessions on BPMH education, front-line reconciliation processes, measurement, and MedRec implementation
        - Patient brochure on MedRec
        - Sample institution-wide role out plan
        - proven forms and tools to support interdisciplinary reconciliation
        - Continue to offer face-to-face meetings with teams

- ISMP Canada is in the initial stages of preparing to launch the mentor program in medication reconciliation. Potential mentor organizations include those who have an interest and ability to help other teams with implementation of SHN! campaign interventions; demonstrated success with implementation of one or more of the SHN! campaign interventions, submit data to the SHN! Central Measurement Team and who have a readiness to share their experiences and what they have learned with others.

  Our next step will be to formally invite these potential mentor organizations to join the SHN Mentor network and will be looking forward to matching the mentors with mentee organizations through communications on the communities of practice, the SHN website and profiling the mentor organizations in the Fall issue of the SHN newsletter.

- In conjunction with the Communications Advisory Group and the communications team from the CPSI Secretariat ensure that a comprehensive communications strategy is implemented, including publications for international learning. Including:
    - Collaborative development of publication as required
    - Key messages

- Including the assessment of 'clinical appropriateness' of medications is a potential next step to be added to the MedRec process.

- Work with Pan-Canadian Faculty to provide input on :
    - Alignment of SHN campaign measures with Accreditation Canada measures
    - Medication reconciliation in ambulatory care/ community
    - Enhancing / optimizing medication reconciliation processes
    - Work with MDs on faculty to get the Canadian Medical Association (CMA) to create a position statement supporting MedRec

- Continue to support Canadian medication reconciliation teams by planning, attending and speaking at conferences, workshops held by *SHN!* and other Canadian associations.

- Continue to reorganize the CoP to ensure members can locate items in a timely fashion. The new CoP will be analyzed and adjustments made based on feedback from our users. Also, ISMP Canada will continue to

monitor the CoP to ensure all new material added is organized, content is appropriate and questions are answered in a timely manner.

- Continue to hold pan-Canadian teleconference calls. The proposed schedule is to have a pan-Canadian call on the 3rd Wednesday of each month. Topics for each call will be dependent on the needs of the teams. Suggested topics and schedule is in Appendix 2.
- Explore the possibility of holding webinar's for certain training sessions. This could include training teams on how to get a BMPH, BPMDP, etc.
- Administrators, leaders and team members must be well informed about the resource commitment for medication reconciliation – this continues to be a priority area.
- Target Leadership engagement – the resource intensiveness of such a system change needs to be understood by leadership.
- Medication reconciliation is a system change which will contribute to seamless care across *all* healthcare settings. 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 their daily practice.

Potential Risks For Future Phases Identified For All Initiatives

- Continued buy-in of physicians, nurses and pharmacists as the work becomes more mundane.
- Time commitment for the medication reconciliation intervention across the system.
- Lack of understanding of the complexity of spreading across an organization.
- Difficulty implementing medication reconciliation at transfer and discharge – the definition of the best possible medication discharge plan is not yet well understood – we are asking for best practice and it is not an easy fix for acute care.
- Difficulty with sustaining measurement without increased leadership engagement**.**
- Leadership and provincial association buy-in in Long Term Care facilities and Home Care.

Financial Report

ISMP CANADA
Summary of Costs for CPSI Grant
for the six month period ending March 31, 2009

	Budget	Actual	Variance
Personnel	89,500	92,156	(2,656)
Translation	3,750	1,500	2,250
Travel	2,500	1,626	874
Supplies/Communications	250	1,345	(1,095)
	96,000	96,627	(627)

Report prepared by Brenda Carthy, Canadian Project Coordinator, Marg Colquhoun, Canadian Intervention Lead, Alice Watt, Safety Specialist, ISMP Canada and Olavo Fernandes, Safety Specialist, ISMP Canada. Submitted August 2009.

Appendix

1

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

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

Pan-Canadian Medication Reconciliation Faculty

Medication Reconciliation Pan-Canadian 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 Pan-Canadian 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

Pan-Canadian Medication Reconciliation Teleconference Calls & Webinars

Pan-Canadian Medication Reconciliation Teleconference Calls

Pan-Canadian Teleconference/WebEx Calls October 2008 – March 2009		
Date	**Topic**	**Speaker**
October 8, 2008	The Model for Improvement	Dannie Currie, SIA for the SHN Atlantic Node
October 22, 2008	Accreditation Canada's Expectations for MedRec	Christopher Dean and Julie Langlois from Accreditation Canada
November 19, 2008	Sharing Experiences and Lessons Learned - Pharmacist Directed Medication Reconciliation	Don Kuntz, Regina Qu'Appelle Health Region
January 21, 2009	Sharing Pan-Canadian Experiences - How Can Pharmacy Students Effectively Support Medication Reconciliation Activities?	Olavo Fernandes, UHN and ISMP Canada (Moderator) with pharmacy students who were involved in MedRec from Moncton, Edmonton and Toronto
February 18, 2009	Doing MedRec in PAC	Dale Schattenkirk, Five Hills Health Region
March 25, 2009	Coordinating Institution Wide Implementation of Medication Reconciliation- Tips, Strategies & Lessons Learned	Olavo Fernandes, UHN and ISMP Canada and Members of the UHN Medication Reconciliation Task Force will also be available to answer questions

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

Pan-Canadian MedRec Calls - Proposed Schedule

Proposed Pan-Canadian Teleconference Calls April 2009 – March 2010		
Proposed Date	**Proposed Topic**	**Proposed Speaker**
April 15, 2009	SHN! Medication Reconciliation - State of the Union 2009	Marg Colquhoun, ISMP Canada and Olavo Fernandes, ISMP Canada and UHN, Toronto ON
July 15, 2009	A Community Hospital Medication Reconciliation Implementation Journey - Successes And Lessons Learned (Scarborough General Hospital)	Gina Leung, Angie Ganter, Teresa Reardon, Dr Maria Valois, Grace Wong, Patricia Macgregor, The Scarborough Hospital, Scarborough, ON
September 10, 2009	Primer - Implementing MedRec at Discharge and Internal Transfer	Olavo/ Marg/ Alice
October 14, 2009	Accreditation Canada and the MedRec ROPs for 2010 plus how to measure successfully to meet SHN! and Accreditation Canada requirements	Christopher Dean, Julie Langlois, Marg Colquhoun
November 18, 2009	Implementing MedRec in Ambulatory Care and Clinics	Front Line Open Forum : Dan Martinusen (Victoria) and Karen Cameron / Victoria/ Marisa
December 16, 2009	The Top Ten Frequently Asked Questions	Marg/Alice
January 2010	Transitions in Care (with a focus on Long Term Care)	Chaim Bell
February 2010	Long Term Care Successes	Dannie, with Calgary Team
March 2010	Home Care MedRec Results and Process – Linking Acute Care to Home Care MedRec Results and Process	Debbie Conrad and Olavo Fernandes
April 2010	Discharge MedRec Successes	Barb Evans - Saskatchewan
May 2010	Implementing MedRec in Your Heath Region	Nick Honcharik Winnipeg & Barb Evans - Saskatchewan
June 2010	MedRec and the Electronic Health Record (HER) (CPSI Roundtable Results)	

Appendix

3

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

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

Pan-Canadian Conference Speaking Engagements

Pan-Canadian Conference Speaking Engagements

Date	Topic, Location and Speakers
September 9, 2008	**Learning Series for LTC in the Atlantic Provinces – 1st session**, *'The 30 Minute BPMH Work Out: Tips, Tools and Strategies for Getting an Efficient and Complete Best Possible Medication History'* Presented by Olavo Fernandes.
September 9, 2008	**Learning Series for LTC in the Atlantic Provinces – 1st session**, *'Medication Reconciliation in Long Term Care'*. Presented by Marg Colquhoun
October 2, 2008	National Patient Safety Week, Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, '*Patient Safety Week Panel -Overcoming Challenges to Successfully Implement Medication Reconciliation-Crossing Boundaries Safely'.* Presented by M. Colquhoun, E. Musing, E. Ethchells, K. Streitenberger and O. Fernandes (Moderator).
October 3, 2008	Clinical Pathways Conference, Toronto ON, '*Crossing Boundaries Safely: Supporting Patients and Multidisciplinary Teams with the Medication Reconciliation Challenge'.* Presented by Olavo Fernandes
October 4, 2008	Current Topics for Pharmacy Technicians Provincial Conference, Listowel, Ontario, '*Medication Reconciliation - Opportunities for Pharmacists and Technicians to Partner for Patient Safety'*, presented by Olavo Fernandes.
October 10, 2008	**APES Association des pharmaciens des établissements de santé du Québec,** Montréal PQ Quebec Node Learning Session:' Strategies for Overcoming Challenges to Implement Medication Reconciliation in Your Practice Site. Presented by Olavo Fernandes.
October 15, 2008	Quality Improvement Coordinators Conference, *Medication Reconciliation in Acute Care*, Ottawa, ON. Presented by Marg Colquhoun.
September 8, 2008	Vancouver *Safer Medication Practices and Medication Reconciliation*, Vancouver, BC. Presented by Marg Colquhoun
November 7, 2008	**North York General Emergency Department Administration Conference,** Toronto ON, 'Strategies for successfully implementing and sustaining medication reconciliation in the ER battlefield', presented by Olavo Fernandes.
November 17 & 18, 2009	Learning Series for LTC in the Atlantic Provinces – 2nd session
November 26, 2008	**ISMP Canada Long Term Care Conference, Halifax Nova Scotia.** 'Medication Reconciliation in Long Term Care'. Presented by Marg Colquhoun, Margaret Deveau and Jennifer Hyson from QEII Health Sciences Centre, Camp Hill Veterans' Memorial Building, Halifax
January 19, 2009	**Ontario Provincial, Workshop Reducing Adverse Drug Events Through Medication Reconciliation in the Long Term Care Setting,** Toronto ON 'LTC Application Cases for Medication Reconciliation and The 30 Minute BPMH Work Out: Tips, Tools and Strategies for Getting an Efficient and Complete Best Possible Medication History'. Presented by Olavo Fernandes.
January 28, 2009	**ISMP Canada Long Term Care Conference, Regina Saskatchewan.** 'Medication Reconciliation in Long Term Care', presented by Marg Colquhoun and Don Kuntz, Regina Qu'Appelle Health Region.

Date	Topic, Location and Speakers
February 4 - 5, 2008	Western Node Breakthrough Series Collaborative Learning Session 3. Coming Full Circle: AMI & MedRec Across the Continuum. 'MedRec (Home Care) - Demonstrating the Value of MedRec in Home Care'. Presented by Marg Colquhoun.
March 4, 2009	**High Fives - International Action on Patient Safety / World Health**, *'International Medication Reconciliation Getting Started Kit and Measurement Approach',* Organization Working Group, presented by Marg Colquhoun, and Olavo Fernandes.
March, 2009	**Learning Series for LTC in the Atlantic Provinces – 3rd session**
March 11, 2009	**ISMP Canada Long Term Care Conference, Ottawa, Ontario.** Medication Reconciliation in Long Term Care, presented by Marg Colquhoun.
March 17, 2009	**Safer Health Care Now! National Educational Resources and Measurement Working Group** 'Using A Web Based Community Of Practice To Drive Change With Medication Reconciliation'. Presented by Olavo Fernandes and Marg Colquhoun.
May 5, 2009	**ISMP Canada Acute Care Conference, Kelowna, Ontario.** *'Medication Reconciliation in Acute Care 'What we've done, what we've learned, how we've changed'*. Presented by Fruzsina Pataky, VCH-PHC Regional Pharmacy Services, National MedRec Faculty.
May 6, 2009	ISMP Canada Long Term Care Conference, Kelowna, Ontario. *'Medication Reconciliation in Long Term Care*', presented by Fruzsina Pataky, VCH-PHC Regional Pharmacy Services, National MedRec Faculty.

Research Posters

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] Health Care Quality Residency Program, Tec de Monterrey -School of Medicine, Monterrey, Mexico, [2] Institute for Safe Medication Practices Canada, Toronto, Ontario, Canada, [3] Toronto General Hospital, UHN; Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada, [4]Department of Health Policy, Management and Evaluation (HPME), University of Toronto, Toronto, Ontario, Canada,

- *Poster Presentation, Canada's Forum on Patient Safety (CPSI), Toronto ON, Wed Apr 29, 2009*
- *Poster Presentation,* Summer Educational Sessions (*CSHP*) - The Centre of It All/ Au Centre De L'Action*, Winnipeg, MB,* August 8-11, 2009

Future Planned activities or promotions

- CPSI Canada's Forum on Patient Safety and Quality Improvement, Marg Colquhoun is helping to create the agenda and obtain speakers for sessions related to medication safety.
- Upcoming ISMP Canada/Accreditation Canada conferences are schedule for June 2-4, 2009 Toronto, September 22-24, 2009 Quebec City and October 27-29, 2009 Fredericton
- *Medication Reconciliation: Keeping Your Ship Afloat!,* September 2, 2009, Winnipeg, MB is a Western Node conference. ISMP Canada will present and assist the node in determining agenda topics and finding speakers.

Appendix

4

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

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

National Patient Safety Week Presentations

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

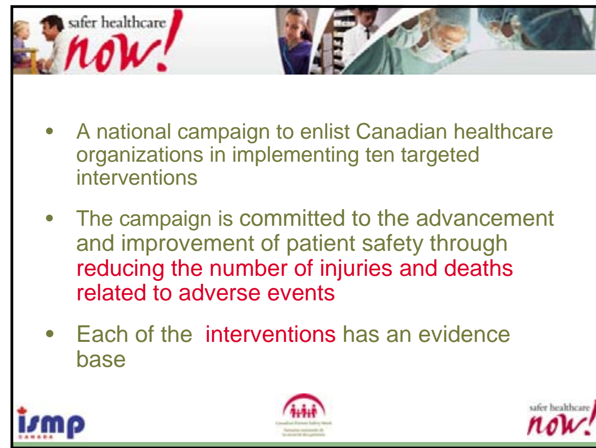
Ref: Forster AJ, et al. *CMAJ* 2004;170(3):345-349

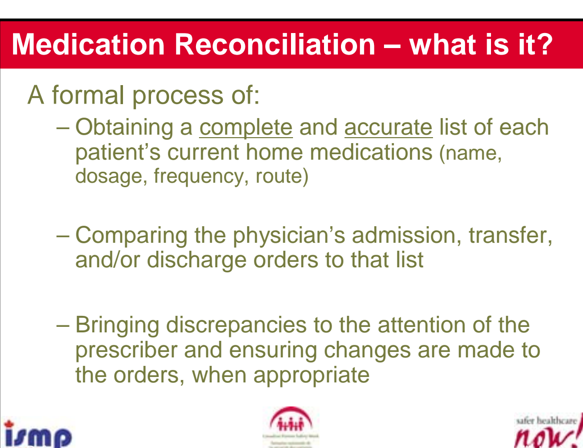
Why should patients/ families be aware about medication safety ?

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

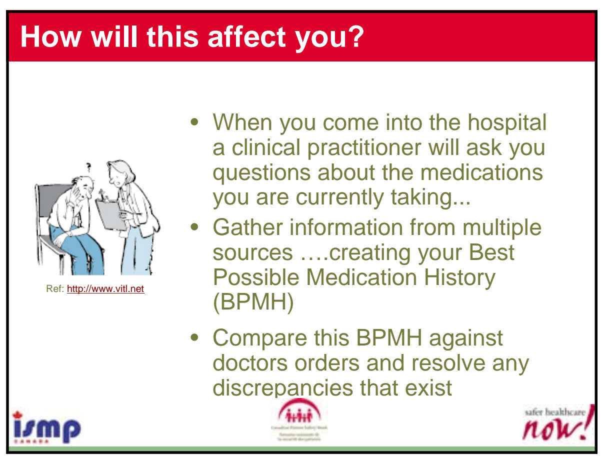


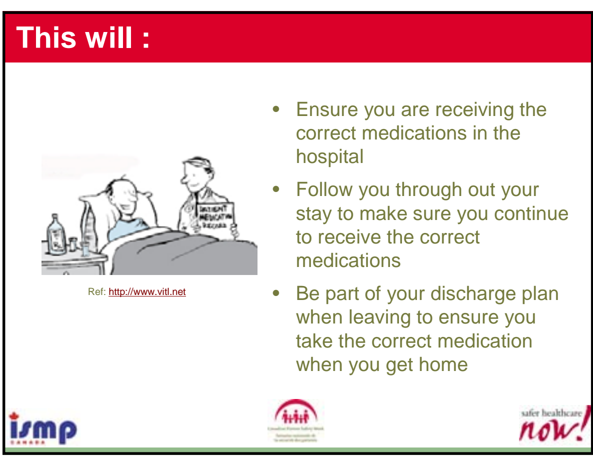


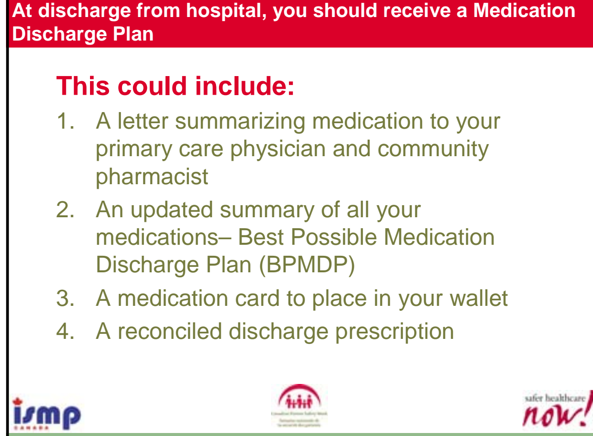
This complete and accurate list is called the Best Possible Medication History or BPMH

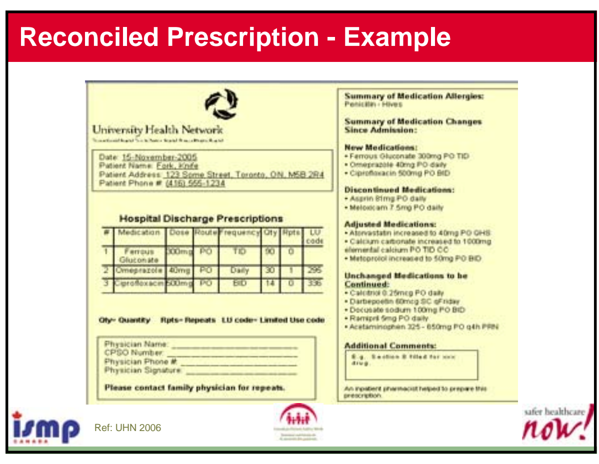
ismp

safer healthcare now!









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

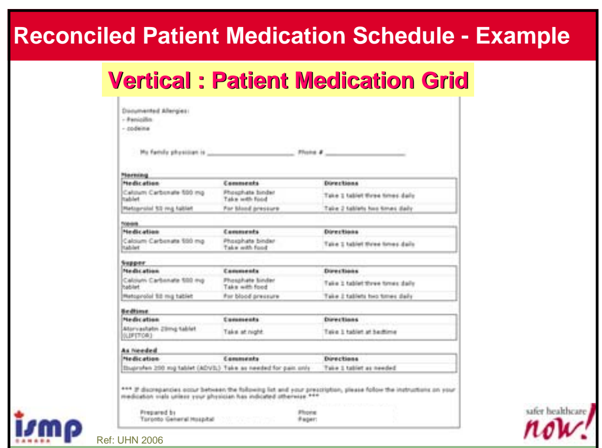
Discontinued Medications:
• Aspirin 81mg PO daily
• Meloxicam 7.5mg PO daily

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

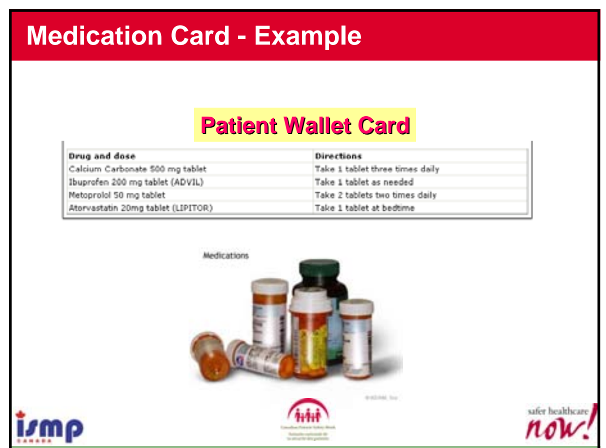
Medication	Comments	Directions
Atorvastatin 20mg tablet (LIPITOR)	Take at night	Take 1 tablet at bedtime

As Needed

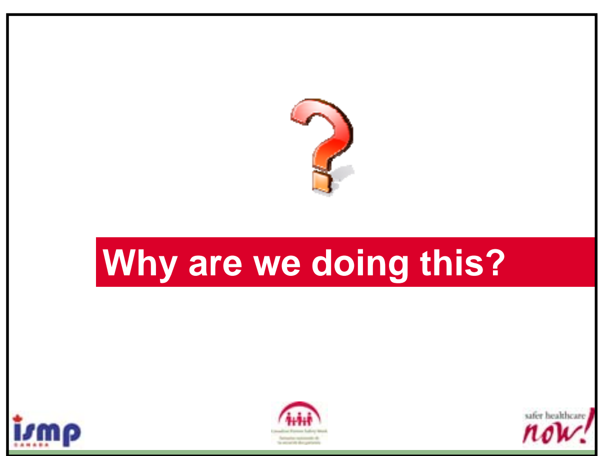
Medication	Comments	Directions
Ibuprofen 200 mg tablet (ADVIL)	Take as needed for pain only	Take 1 tablet as needed

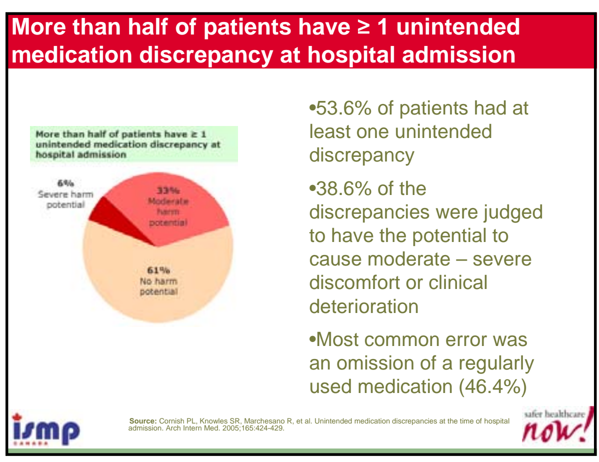
*** If discrepancies occur between the following list and your prescription, please follow the instructions on your medication vials unless your physician has indicated otherwise ***

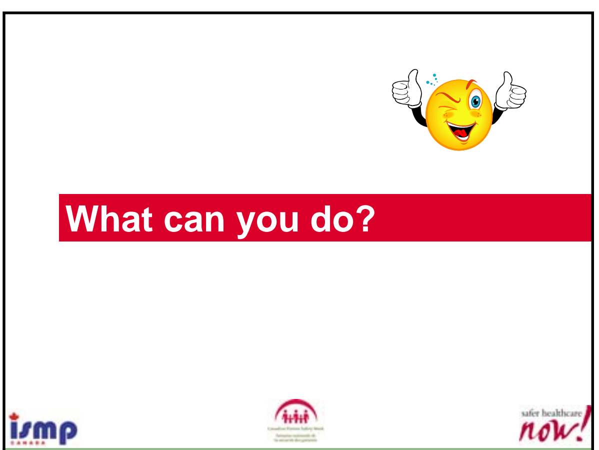
Prepared by: Toronto General Hospital
Phone:
Pager:

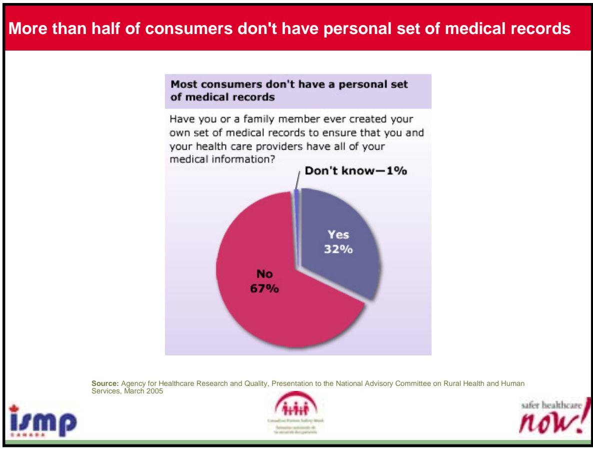


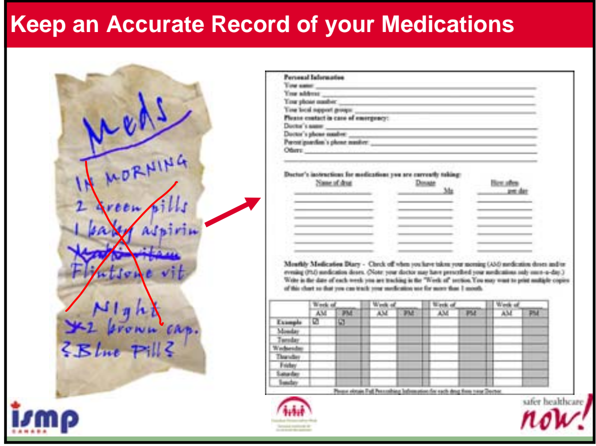
Drug and dose	Directions
Calcium Carbonate 500 mg tablet	Take 1 tablet three times daily
Ibuprofen 200 mg tablet (ADVIL)	Take 1 tablet as needed
Metoprolol 50 mg tablet	Take 2 tablets two times daily
Atorvastatin 20mg tablet (LIPITOR)	Take 1 tablet at bedtime


Why are we doing this?

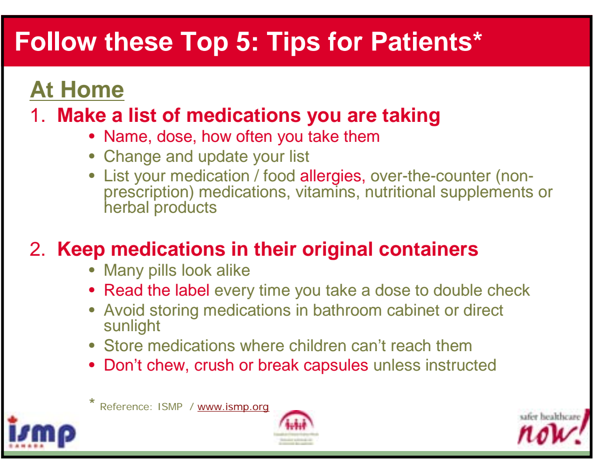

More than half of patients have ≥ 1 unintended medication discrepancy at hospital admission
More than half of patients have ≥ 1 unintended medication discrepancy at hospital admission
6% Severe harm potential
33% Moderate harm potential
61% No harm potential
•53.6% of patients had at least one unintended 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.


What can you do?


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


Keep an Accurate Record of your Medications
Meds
In MORNING
2 Green pills
1 baby aspirin
Flintstone vit
Night
2 brown cap.
Blue Pill

Medication Use Safety:
What Patients Can Do
Image: http://www.jcrinc.com


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
safer healthcare now!

Top 5: Tips for Patients
In Hospital
3. 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
4. Discharge Medication Review
– When you are ready to go home have a doctor, nurse or pharmacist review medications with you
* Reference: ISMP / www.ismp.org
ismp
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Top 5: Tips for Patients*
At the doctor's office
5. 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 them (allow you to double check at the pharmacy)
• Tell your 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 checks for drug interactions
* Reference: ISMP / www.ismp.org
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What Else Can You Do?
Tips for Patients and Families
Ask. Talk. Listen.
Be involved in your health care and safety.
Ask
Write questions down in advance of your appointment and take notes when meeting with health care providers.
• Ask your doctor, nurse or pharmacist questions about your medications,
• Ask for medication changes, discharge date and instructions to be sent to your family doctor If you've been hospitalized.
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TALK
Tips for Patients and Families
Ask. Talk. Listen.
Be involved in your health care and safety.
You are best able to tell your doctor or health care provider about any problems you are having.
• Talk about previous treatments or surgeries, current prescriptions or any other health concerns.
• 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 your pharmacist to ensure the medication dispensed is the one prescribed for your condition.
• Talk to your health care provider at the first sign of any discomfort or something that doesn't feel 'quite right".
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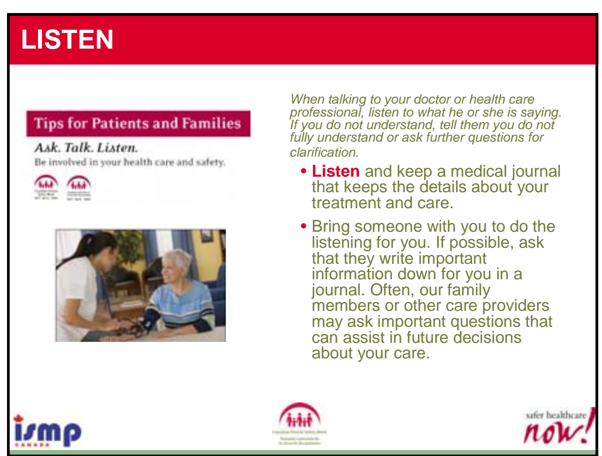

LISTEN
Tips for Patients and Families
Ask. Talk. Listen.
Be involved in your health care and safety.
When talking to your doctor or health care professional, listen to what he or she is saying. If you do not understand, tell them you do not fully understand or ask further questions for clarification.
• Listen and keep a medical journal that keeps the details about your treatment and care.
• Bring someone with you to do the listening for you. If possible, ask that they write important information down for you in a journal. Often, our family members or other care providers may ask important questions that can assist in future decisions about your care.
ismp
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.

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!

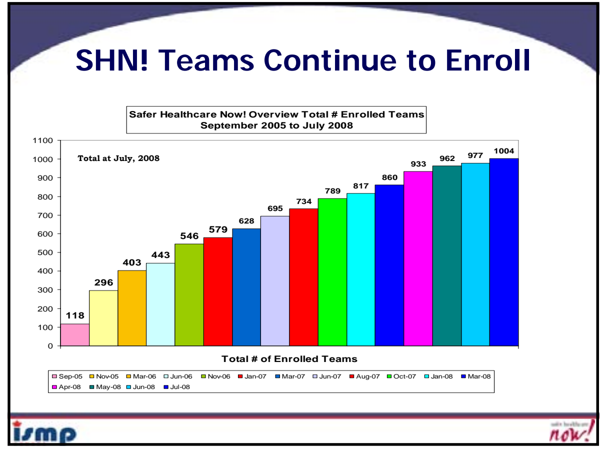
October 2, 2008

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

What is Happening in Medication Reconciliation

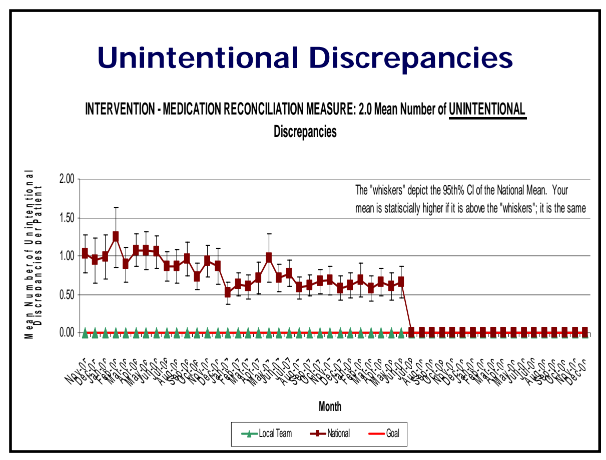
- Canadian Patient Safety Week www.patientsafetyinstitute.ca/cpsw
- SHN! medication reconciliation implementation
  - Acute and LTC (separate GSKs available)
  - Homecare being tested by 20 new teams
  - Working to develop new systems and processes for moving medication reconciliation across the continuum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

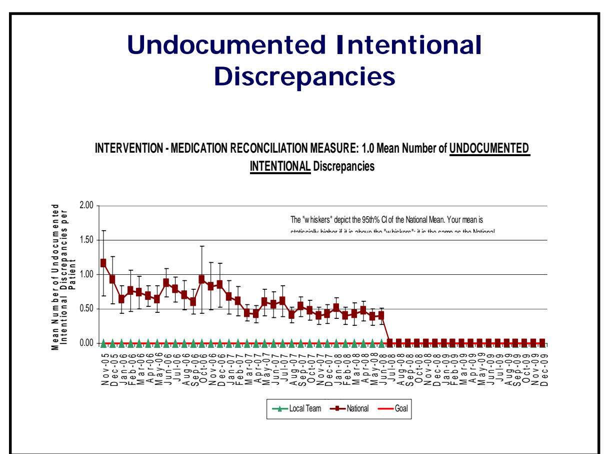


Safer Healthcare Now! Enrollment by Province & Territory

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





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”

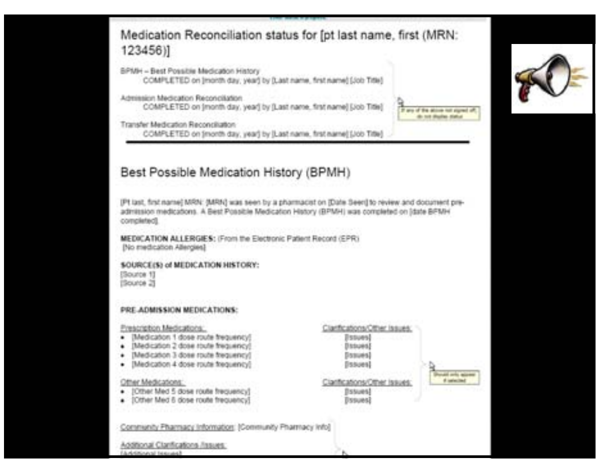
Medication Reconciliation
Taking that first step...

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]

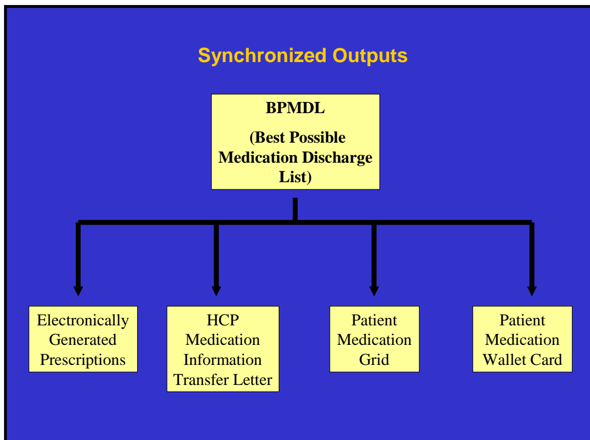
PRE-ADMISSION MEDICATIONS:

Prescription Medications: — Clarifications/Other Issues:
- [Medication 1 dose route frequency] — [Issues]
- [Medication 2 dose route frequency] — [Issues]
- [Medication 3 dose route frequency] — [Issues]
- [Medication 4 dose route frequency] — [Issues]

Other Medications: — Clarifications/Other Issues:
- [Other Med 5 dose route frequency] — [Issues]
- [Other Med 6 dose route frequency] — [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

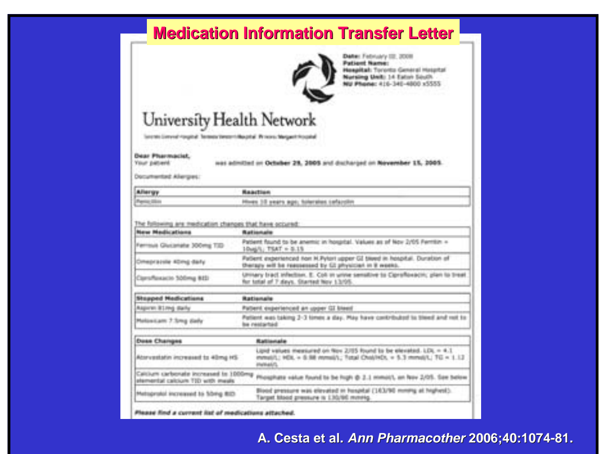
Adjusted Medications:
- Atorvastatin increased to 40mg PO QHS
- Calcium carbonate increased to 1000mg elemental calcium PO TID CC
- Metoprolol increased to 50mg PO BID

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.

6



Medication Information Transfer Letter

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

University Health Network

Dear Pharmacist,
Your patient was admitted on **October 28, 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 occured:

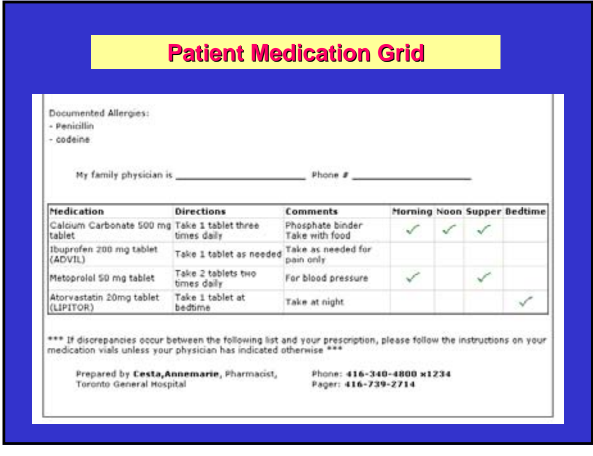
New Medications	Rationale
Ferrous Gluconate 300mg TID	Patient found to be anemic in hospital. Values as of Nov 2/05 Ferritin = 10ug/L; TSAT = 0.15
Omeprazole 40mg daily	Patient experienced non H.Pylori upper GI bleed in hospital. Duration of therapy will be reassessed by GI physician in 8 weeks.
Ciprofloxacin 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

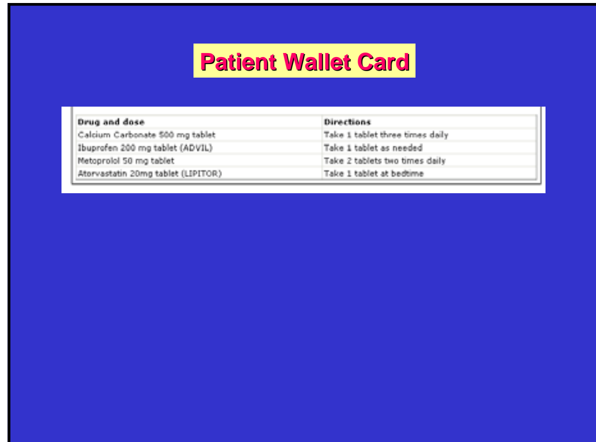
My family physician is ____________________ Phone # ____________________

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 ***

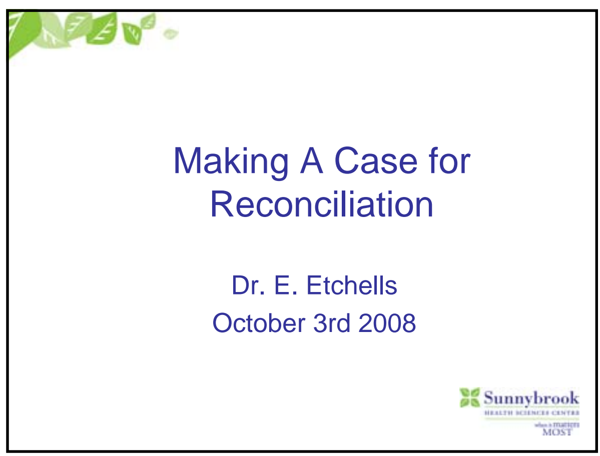
Prepared by **Cesta,Annemarie**, Pharmacist, Toronto General Hospital

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

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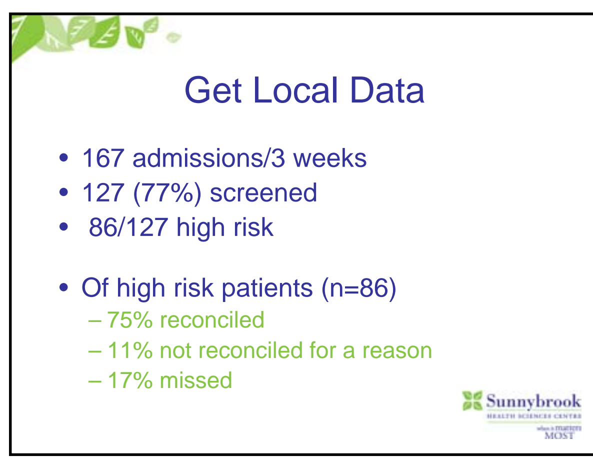

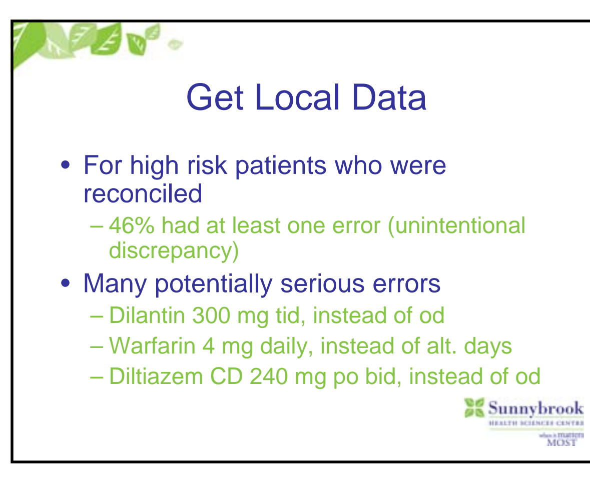

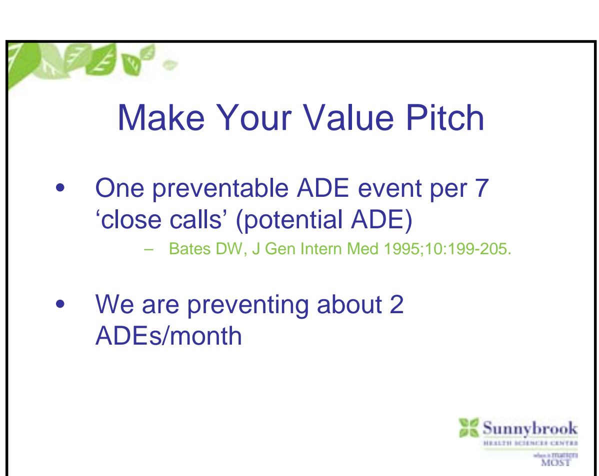

	Bed Days Saved/yr	Direct Costs Saved/yr
Low	35	$39,000 USD
Medium	**82**	**$84,330 USD**
High	144	$288,000USD

- 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

SickKids

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

SickKids

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

SickKids

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

Appendix

5

INSTITUTE FOR SAFE MEDICATION PRACTICES CANADA

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

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

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

Alejandro Montoya MD, Olavo Fernandes PharmD, Margaret Colquhoun BScPhm, Brenda Carthy BSc, Virginia Flintoft RN, MHSc, G. Ross Baker PhD

Background

The Canadian *Safer Healthcare Now!* (SHN!) patient safety campaign developed a web based tool for centralized inter-team communication which enables member collaboration nationally, called the Communities of Practice (CoP).

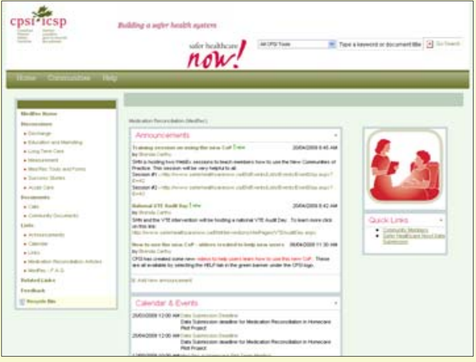

Figure 1 Medication reconciliation (MedRec) CoP Home Page

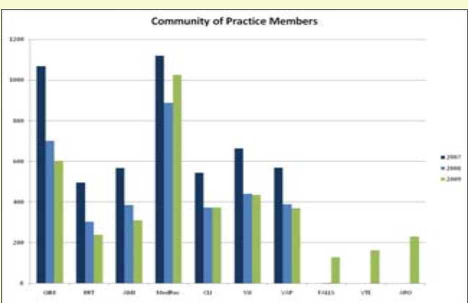

Figure 2 SHN Communities of Practice membership

The MedRec CoP has over **1,000 members** since its launch three years ago.

Background (continued)

The CoP had not been systematically evaluated.

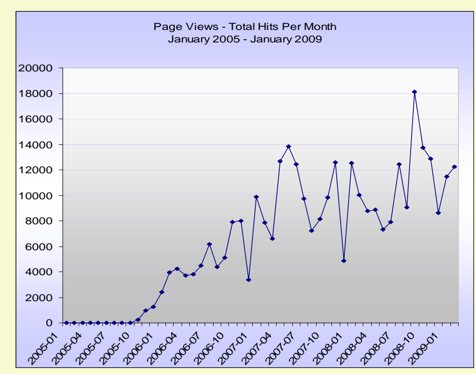

Figure 3 MedRec CoP Site Visits Per Month

The site receives up to **18,000 visits per month.** Members communicate and share processes, challenges and solutions using the Discussion board.

Objective

Evaluate the MedRec CoP to identify main topics of discussion common issues, frequency of use and general trends.

Methods

- Systematically evaluate all discussions posted on the SHN MedRec CoP.
- Collect data including the number of topics, messages and frequency of access for each topic.
- Timeframe: March 2006 to July 2008

Results

Discussion postings review identified 18 main categories which include:

- 232 separate topics
- 708 posted messages
- 17,677 visits

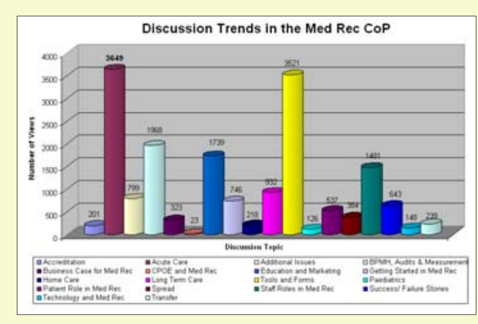

Figure 4 Discussion Trends in the MedRec CoP

Most visits were to seek information on the following categories*

1. Acute Care
2. Audits and Measurement
3. Education and Marketing
4. Tools and Forms
5. Staff Roles in MedRec

**Represents 21 topics and 22.5% of activity*

Discussion

- New teams sequentially followed the same path of information access. Teams sought information for similar topics and posed similar questions at similar intervals from the time of enrolment.
- Postings demonstrated that needs of teams change at different phases of implementation.

Discussion (continued)

- Analysis identified that selected critical topics guided the foci of the discussions.
- Retrospective analysis of established discussion boards may help future quality improvement teams by creating awareness of key topics.
- Monitoring the discussion topics will assist CoP administrators to:
  - create Frequently Asked Questions,
  - organize discussions into categories facilitating ease of access to required information,
  - discover the useful resources to be profiled.
- For intervention leads, discussion topics can identify team challenges and need for further education (e.g. face-to-face meetings, national calls).

Next Steps:

- Frequently Asked Questions
- Practical Change Package
- Mentorship Program recruitment

Conclusion

Evaluation of the web based medication reconciliation Communities of Practice provided valuable information and identified key strategies required to help teams successfully implement medication reconciliation.

www.saferhealthcarenow.ca

www.ismp-canada.org

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