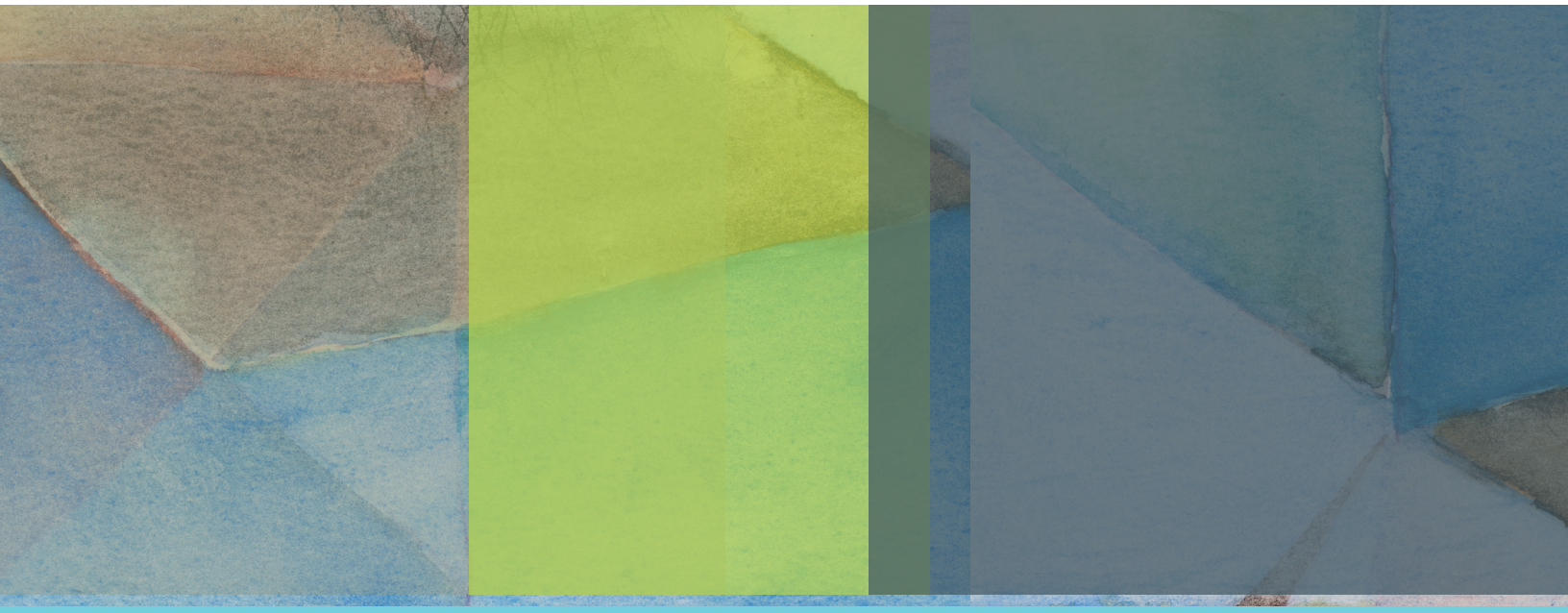

Optimizing Medication Safety at Care Transitions
- Creating a National Challenge

February 10, 2011, Toronto ON


ismp
CANADA


Canada Health Infoway
Inforoute Santé du Canada


safer healthcare
now!


cpsi icsp
Canadian Patient Safety Institute
Institut canadien pour la sécurité des patients

On February 10, 2011 the Canadian Patient Safety Institute in partnership with the Institute for Safe Medication Practices Canada and Canada Health Infoway, hosted Canada's first national invitational summit to accelerate a system-wide strategy to implement medication reconciliation (MedRec). MedRec is a proven intervention to prevent medication errors at patient transition points. This report speaks to the overall findings of the day and the tactics and recommendations for the work ahead.

Executive Summary

Medication errors continue to be a significant source of avoidable harm to patients who enter, transition through and leave our healthcare system. In Canada, published acute care studies have demonstrated that 40 to 50% of patients at admission and 40% at discharge, experience unintentional medication discrepancies or potential errors[1-4]. There is a significant opportunity to reduce avoidable harm as well as unnecessary readmissions to hospitals through a standardized, system-wide MedRec process.

It is critical that MedRec which focuses on communication about medications, and has largely targeted acute care, move across the continuum to primary care, long-term care and all community based services.

There are many stories of critical failures in MedRec which have resulted in harm and even death. One story that provided a compelling start to the summit was from an individual whose family member experienced multiple MedRec failures while receiving care in Canada. These failures resulted in significant harm to the patient and led to debilitating - yet avoidable - pain and suffering, prolonged hospitalization and ultimately death. The discussion throughout the day affirmed that this was indeed not an isolated incident but rather a failure that plays out over and over again in our healthcare system. Discussions further revealed that this type of failure is not confined to the acute care system, and has compromised patient safety and quality of care in every sector of the system. As such it requires a system-wide solution.

"If hospitals can provide menus for lunch, then surely hospitals can provide printed lists of medications as a way to check these on admission and provide to the patient on hospital discharge". *Family Member*

Through the course of the summit, healthcare CEO's, senior leaders, representatives from national associations, provincial quality councils, physicians, nurses and pharmacists worked together to identify themes that would accelerate and optimize MedRec across the continuum of care.

The common themes identified were:

A Inter-Professional Engagement
B Leadership Accountability
C Public - Consumer and Caregiver Engagement
D Physician Roles
E Culture and Human Systems
F Education and Training
G Information Systems and Technology
H Tools and Resources
I Measurement

For each of these key themes, recommendations to advance the national agenda were created. A final note to the day was a clear and resounding commitment from CPSI to develop partnerships, allocate resources and provide leadership to the work of implementing MedRec across the healthcare system.

Background

MedRec is a formal process in which healthcare providers work together with patients, families and caregivers to ensure accurate and comprehensive medication information is communicated consistently across transitions of care.[5] It is complex and requires the support of all levels and many disciplines within the system. This complexity is deepened by the silo approach to provision of services across the continuum.

Safer Healthcare Now! (SHN) is a grassroots initiative funded in part by the Canadian Patient Safety Institute whereby frontline teams are supported in a variety of safety interventions to make care safer. Since 2005, SHN has been the vehicle for organizations to learn about and implement MedRec. Led by ISMP Canada, MedRec began in acute care and with phase 2 of SHN in 2008, spread to long term care and home care. It soon became the most highly subscribed intervention for SHN with almost 500 teams across the country enrolled in the work.

The value proposition for MedRec has been more fully developed over the previous 5 years and will be instrumental in advancing this work. Baseline data from Canadian teams in SHN indicates an average of greater than one unintentional discrepancy (potential error) per patient. 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.[2] Karnon and colleagues did a cost benefit analysis of medication reconciliation interventions[6]. Other work in Canada as well as the US has supported the cost benefit of this work.

Intense interest in MedRec is undoubtedly attributed in part to the work of Accreditation Canada as the organization designated MedRec a Required Organizational Practice (ROP) in 2006. In spite of substantial effort, MedRec remains incredibly challenging to implement reliably across organizations and all sectors of the continuum of care. The intent of this summit was to engage national leaders and decision makers, because without strong leadership support, system-wide implementation cannot be accomplished. In the words of some it is time to “turn up the heat on MedRec” and time to “develop and implement a national strategy” across the entire healthcare system.

Pan-Canadian MedRec Summit Strategies and Next Steps

Summit leaders agreed that medication reconciliation should be recognized as a significant element of patient safety in Canada. Recommendations from the summit form the basis of the national strategy to ensure the advancement of medication reconciliation across the healthcare system.

A Pan-Canadian Steering Committee including national organizations and key decision makers will be created to develop and implement the national strategy to achieve the audacious goal of "MedRec for all - at every transition of care - in all sectors of the system".

A. INTER-PROFESSIONAL ENGAGEMENT:

Creating a strategy to ensure MedRec is a process framed within the broader inter-professional delivery of healthcare is crucial to the success of system-wide implementation. A critical component of this work is to clarify the role of physicians as part of a broader healthcare team working together to provide safe care. There is a need to expand the role of providers not traditionally seem as playing a role in MedRec.

Recommendations:

1 Establish a coalition of leaders from professional healthcare organizations including CMA, CSHP, CPhA, CNA, CACDS, CFPC, RCPSC, NAPRA, and other regulatory authorities.

2 Define key messages and expectations around inter-professional practice and expected standards of practice for health professionals with respect to MedRec and communication of patient medication information to accelerate system-wide implementation.

3 Utilize a broader definition for healthcare practitioner to include licensed practical nurses, personal support workers and pharmacy technicians who could play a role in the process of MedRec.

B. LEADERSHIP ACCOUNTABILITY:

Senior leadership commitment is critical to ensuring MedRec is implemented successfully across an organization. It is essential to dedicate resources to support the achievement of an ambitious plan of action, and include MedRec as a strategic priority with goals, timelines, accountability for implementation, evaluation and progress reporting. Accountability must rest with the CEO with clear reporting expectations at the board level.

Recommendations:

1 The value proposition for medication reconciliation must be fully developed and broadly distributed so that the medication reconciliation investment is deemed worthwhile. This will support leaders to justify resource allocation and support budgetary decisions.

2 Senior leaders will be asked to identify MedRec as a strategic priority for all healthcare organizations, and dedicate resources and clear accountability for results across the continuum of service including the primary care setting.

3 MedRec will be part of the regular patient safety reporting to the board level in all healthcare organizations with specific targets and outcome measures. This work will also support Accreditation Canada requirements for maintaining accreditation status.

C. PUBLIC - CONSUMER AND INFORMAL CAREGIVER ENGAGEMENT:

More and more, the public is expecting to be included as part of the team approach to their healthcare. To capitalize on this key component of care, a comprehensive strategy to engage the public is essential. This strategy requires that the individual has access to appropriate medication information and recognizes that the consumer plays a key role in the primary care setting as the one constant element among multiple providers of service.

Recommendations:

1 In consultation with consumer groups identify opportunities for individuals and informal caregivers to play a role in the MedRec process as a basic component of their healthcare.

2 Develop tools and resources to support the role of the public in this process.

3 Create plans which include an expectation that every consumer/caregiver is adequately informed about their medications, especially during transitions in care.

4 Integral to this work is the use of a patient-centred user record to support MedRec.
   a) The overarching concept is that a patient-centred, unique and up-to-date medication record is required.
   b) The patient needs to be able to have access to and maintain their medication record and medication list and keep it current. This may be a manual paper list, their 'personal health record', or even a 'USB memory key' that the patient takes to each provider and asks each provider to update at the time of the visit.

D. PHYSICIAN ROLE

Any strategy to advance MedRec must focus on clarifying and supporting the essential role physician's play in the process of MedRec. This must be seen as a shared responsibility, with clear expectations and measureable outcomes.

Recommendations:

1 Clearly define, in consultation with key physician groups, the role of the physician in MedRec across the continuum of healthcare.

2 Ensure tools and resources to support all providers are intuitive and readily accessible and available as required to support and facilitate the process.

3 Provide accredited educational opportunities for physicians to better understand the value of medication reconciliation in the provision of safe care and the role they can play in making it happen.

E. CULTURE AND HUMAN SYSTEMS:

Much has been written about the culture of organizations and the role it plays in implementing and sustaining system change. It is clearly a product of the values and beliefs of an organization and how those values and beliefs impact the day to day activities and decisions of the organization. A culture that includes a commitment to stakeholder engagement, as well as teamwork and effective communication is essential if MedRec is to be successfully implemented and sustained across of the system.

Recommendations:

1 Develop strategies to support organizations in understanding the role culture plays in driving patient safety initiatives, such as MedRec.

2 Identify tools and resources to assess the readiness and capacity of an organization to implement and sustain large-scale change, such as MedRec.

3 Identify necessary cultural requirements, for the work ahead.
   a) The values of the role that consumer and their caregivers can play in supporting safe medication care.
   b) A willingness to change the way people work.
   c) The need for a multi-disciplinary team focused approach.
   d) A culture of reporting.
   e) The need for open and clear communications to support these values.

F. EDUCATION AND TRAINING:

Education will be a critical driver for success in implementing MedRec and will require a multi-level strategy from academia to frontline practitioners.

Recommendations:

1 Work with academic Institutions across Canada to:
   a) Identify competencies required by all healthcare professionals to accept and understand the role they need to play in ensuring comprehensive MedRec becomes a standard of care in all sectors of the system.
   b) Identify the need for curriculum and practical "hands-on" education in MedRec for undergraduate students and post-graduate students.
   c) Incorporate expectations and training for all aspects of the MedRec process, including taking a Best Possible Medication History (BPMH) into the undergraduate curriculum for all healthcare professionals.

2 Integrate specific and appropriate curriculum into the Governance for Quality and Patient Safety as well as the Patient Safety Education Project (PSEP) to support MedRec.

3 Education should include information on the role and responsibilities of the consumer and informal caregivers can and should strive to ensure system-wide uptake of MedRec.

4 Work with Accreditation Canada to ensure education opportunities are available for surveyors to support a standard and accurate understanding of MedRec requirements for accreditation.

5 Continue to support and spread MedRec knowledge and practice through ongoing education to teams and organizations through *Safer Healthcare Now!*.

G. INFORMATION SYSTEMS AND TECHNOLOGY:

An electronic health record which encompasses the entire spectrum of health services in Canada is comprehensive, practical and accessible to all practitioners and the public, with appropriate privacy protection, is the ultimate goal for managing health information. This should act as the 'one source of truth' where the medication list lives for Canadian patients. This will advance MedRec and should continue to be aggressively pursued as a key component of the national strategy for MedRec.

Recommendations:

1 Work with appropriate partners to promote the standards and necessary practices for safe use, implementation and operation of Drug Information Systems and all associated EHR software.

2 Continue to implement Drug Information Systems and an integrated electronic health record to fully realize the quality, access and productivity benefits.

3 Make healthcare providers aware of the timelines and targets for implementation of the EHR by province for 'all drugs all people'.

4 Work closely with vendors to ensure clinical and functional requirements are met and the required standards are in place to facilitate data use and clinician adoption across the continuum of care. If systems are not intuitive, easy to use and reduce overall time in a clinician's workflow, they will not be used, and can in fact, contribute to more errors.

5 All issues of privacy and legislative requirements must be respected and addressed as the work proceeds.

H. TOOLS AND RESOURCES:

MedRec has been an integral part of *Safer Healthcare Now!* since 2005 and under the leadership of ISMP Canada many tools and resources, from acute care to long term care and home care have been developed, tested and validated by teams across the country. These tools will form the basis for a comprehensive implementation strategy to support the work ahead.

Recommendations:

1 Ensure standardized and intuitive tools and resources are developed to support nation-wide implementation of MedRec and that these tools meet the needs of all levels of the organization and all sectors of the system, including primary care.

2 Work with Accreditation Canada to ensure Standards and Required Organizational Practices (ROP) set expectations for MedRec in a consistent and practical manner to provide the push to ensure MedRec is successfully implemented on admission, discharge and at transitions of care.

3 Work with appropriate partners in the development of electronic decision support tools to be used at the point of care, which will be a key component for managing the complex pharmacopeia now available to patients through their healthcare providers.

4 Work with key partners to ensure tools and resources to support MedRec are customized and available to consumers and caregivers across the continuum.

I. MEASUREMENT

The next steps to successful implementation of medication reconciliation in Canada must include measurement that is meaningful and relevant to the process. There must be metrics to measure medication reconciliation processes, from a quality as well as outcome perspective.

Recommendations:

1 The Steering Committee should formalize an implementation plan with specific deliverables, outcome measures and timelines.

2 Provincial/territorial/national mandatory reportable measures/indicators to include:
   a) *Quality:* Regular audits by an independent observer in order to assess quality and reliability of the Best Possible Medication Histories.
   b) *Process:* Percentage (%) reconciled at different interfaces; Percentage (%) of clients with a BPMH in home care.

3 Establish focused targets to evaluate the systematic implementation of all components of MedRec.

Conclusion

The 2011 MedRec Summit was a call to action for healthcare leaders across the country to support development and implementation of a comprehensive strategy to support effective MedRec across the system. The strategy must include measurable outcomes to track completion of the process and its impact in reducing avoidable harm to the Canadian public.

A Pan-Canadian Steering Committee will be created to support and guide the development, implementation and evaluation of a comprehensive action plan with outcome measures, financial accountability, and regular reporting requirements. Many of you will play a key role in supporting the work and achieving the bold aim of *'MedRec for all - at every transition of care - in all sectors of the system'*. Thank you for your commitment to advancing the patient safety agenda in Canada. Together we can make it happen!

---

1 Wong JD, Bajcar JM, Wong GG, et al. Medication reconciliation at hospital discharge: evaluating discrepancies. Ann Pharmacother 2008;42:1373-9.

2 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.

3 Vira T, Colquhoun M, Etchells EE. Reconcilable differences: correcting medication errors at hospital admission and discharge. Qual Saf Healthcare 2006;15:122-6.

4 Kwan Y, Fernandes OA, Nagge JJ, et al. Pharmacist medication assessments in a surgical preadmission clinic. Arch Intern Med 2007;167:1034-40.

5 Medication Reconciliation in Acute Care Getting Started Kit, release date March 2011, *Safer Healthcare Now!*

6 Karnon J, Campbell F, Czoski-Murray C. Model-based cost-effectiveness analysis of interventions aimed at preventing medication error at hospital admission (medicines reconciliation). Journal of evaluation in clinical practice. 2009 Apr;15(2):299-306.