

Medication Reconciliation: A Prescription for Safer Care

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Abstract

Four national healthcare organizations – Accreditation Canada, the Canadian Institute for Health Information, the Canadian Patient Safety Institute and the Institute for Safe Medication Practices Canada – recently collaborated to better understand and share comprehensive information about medication reconciliation in Canada. This article summarizes the key findings of their joint report titled *Medication Reconciliation in Canada: Raising the Bar* and profiles innovative approaches and tools for healthcare organizations across Canada.

Medication Reconciliation: Reducing Risks for Patients and the Health System

Medication reconciliation is a systematic process to review all the medications a patient is taking to ensure that medications being added, changed or discontinued are carefully assessed and documented. Endorsed by patient safety organizations around the world, medication reconciliation is intended to ensure accurate communication at care transition points, for example, when patients enter a hospital, transition to another service or provider or are discharged home. Significant system cost savings stand to be achieved given that the total cost of preventable drug-related hospitalizations is about \$2.6 billion per year (Hohl et al. 2011).

Medication reconciliation can reduce the potential for readmission by ensuring that patients understand their drug regimens at discharge. More than 180,000 Canadians had an

unplanned readmission to acute care within 30 days of discharge in 2010, costing an estimated \$1.8 billion and accounting for 11% of all acute hospital costs (Canadian Institute for Health Information [CIHI] 2012).

Medication reconciliation can also play an important role in contributing to patient understanding of complex medication regimens. For example, seniors in Canada take four times more over-the-counter medications than any other age group and are therefore more at risk of potential drug interactions (CIHI 2011a, 2011b).

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Medication Reconciliation in Canada: A Snapshot

Accreditation Canada Required Organizational Practices

Data Sources

Over 1,200 healthcare organizations (6,000 sites) participate in Accreditation Canada programs every year. During the on-site survey, trained surveyors from accredited health organizations assess the leadership, governance, clinical programs and services provided against the Accreditation Canada standards. First introduced in 2005, Required Organizational Practices (ROPs) are evidence-based practices developed with input from healthcare experts that mitigate risk and contribute to improving the quality and safety of health services.

Findings

Since 2008, there has been a gradual improvement in organizational performance on medication reconciliation ROPs across the continuum of care. As shown in Table 1, national compliance with the medication reconciliation requirement (medication reconciliation in two client service areas, plus having a plan to disseminate it throughout the rest of the organization) had a 21% increase from 61% in 2010 to 82% in 2012. At the level where care was provided to patients (e.g., surgical care services, long-term care services), compliance rates for the Medication Reconciliation at Admission ROP improved from 47% (2010)

to 71% (2012), and Medication Reconciliation at Transfer or Discharge ROP compliance rates improved from 36% (2010) to 62% (2012) (Accreditation Canada 2013). While these improvements are impressive, there is still much work to be done.

Safer Healthcare Now! and Medication Reconciliation Practice Leaders

Data Sources

Medication reconciliation was one of the six original Safer Healthcare Now! (SHN) interventions designed to contribute to making the healthcare system safer for Canadians. Since SHN was launched eight years ago, medication reconciliation has been the most highly subscribed intervention, with more than 500 SHN teams (representing 450 different organizations) participating. Healthcare organizations that were identified as potential practice leaders were surveyed in late 2011 (CPSI and ISMP Canada 2012).

Findings

While leaders and teams reported strong support for medication reconciliation, there was also frustration at the unexpected complexity and the need for strong and consistent leadership and sufficient resources to advance this agenda. Table 2 shows the key success factors and the challenges identified. Medication reconciliation requires the engagement of physicians, nurses and pharmacy staff, and effective leadership is critical.

TABLE 1.
National compliance rates with the Accreditation Canada medication reconciliation ROPs

ROP	Compliance Rate (%) [*]		
	2010	2011	2012
Develops and implements a plan for medication reconciliation throughout the organization	61	77	82
Medication Reconciliation at Admission	47	60	71
Medication Reconciliation at Transfer or Discharge	36	50	62

ROP = required organizational practice.

^{*}Some variation is expected in ROP compliance rates from year to year because different organizations undergo on-site surveys each year.

Source: Data from Accreditation Canada (2013).

TABLE 2.
Key success factors and challenges identified from medication reconciliation practice leaders* in Canada, 2012

Success Factors	Challenges Identified
Strong leadership support	Lack of both human and fiscal resources
Physician champions/leaders	Limited technology
Information technology support	Insufficient professional and government direction
Comprehensive staff education plan	

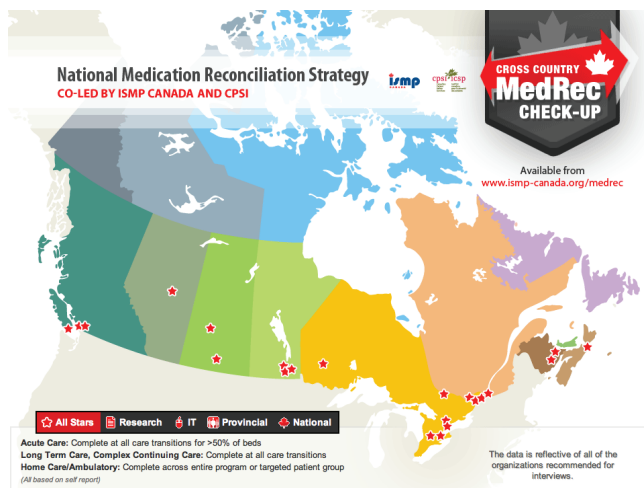
^{*}Fifty organizations, representing nine provinces, were interviewed using a standardized survey tool. They ranged from small, stand-alone facilities to large, regional healthcare organizations and academic centres. Seventy-four percent of the organizations had fully implemented medication reconciliation on admission, while 44% had full implementation on transfer, and 37% on discharge. The majority had implemented medication reconciliation on medical units (65%) and on surgery units (59%). Of the respondents, 54% used a paper-based system, while 40% used a hybrid electronic/paper system and 15% used a fully integrated electronic system.

Renewing the Focus on Medication Reconciliation: Innovative Resources

MedRec Check-Up Map and Leading Practices

An interactive map was developed to profile Canadian medication reconciliation success (Figure 1). The map identifies practice leaders, the use of technology, provincial and national supports, Canadian research and publications related to medication reconciliation. This Cross Country MedRec Check-Up map is available on the CPSI and ISMP Canada websites (see www.ismp-canada.org/medrec/map or <http://www.saferhealthcarenow.ca/EN/Interventions/medrec/Pages/default.aspx>) and is continually updated.

FIGURE 1.
Cross Country MedRec Check-Up Map



Through a searchable online Leading Practices database (www.accreditation.ca), Accreditation Canada recognizes leading practices in Canadian organizations across the care continuum that are innovative and use cost-effective solutions to improve quality. These resources allow innovative practices in medication reconciliation to be shared, and it provides an opportunity for others to learn from the experiences of these organizations, supporting the successful implementation of medication reconciliation. Some of the practices recognized include customizing medication reconciliation supports for the home care environment, using electronic data to better track patient information as patients move across the system, and developing visual teaching aids so staff can better understand the process as a series of steps with a clear rationale for each one.

MyMedRec

An interactive iPhone and iPad app, MyMedRec (Figure 2), was developed by ISMP Canada with input from Canadian patient groups and healthcare provider organizations. This

new electronic tool is available worldwide to support people in managing their own healthcare and using their medications safely and appropriately. MyMedRec prompts patients and caregivers to have their medication and immunization records at their fingertips. The app helps patients and caregivers to compile a full list of their medications, whether prescription, over the counter or natural health products, and to share this information with their healthcare team. The app is supported by the www.knowledgeisthebestmedicine.org website and includes features such as refill and dosage reminders, medication histories, multiple patient profiles, email and picture capabilities and contact information of prescribers and pharmacies.

The Future of Medication Reconciliation in Canada: Where To from Here?

To continue spreading medication reconciliation across the system, a number of strategies are designated priorities of the National Medication Reconciliation Strategy, co-led by CPSI and ISMP Canada. These strategies include engaging senior leaders, continuing collaboration with national organizations, and developing and disseminating tools and resources to support front-line providers as well as families, clients and unregulated care providers in the community setting. Accreditation Canada has consulted with its national partners and medication reconciliation leaders from across Canada to inform program enhancements – announced in January 2013 for on-site surveys starting in 2014 – that will permit surveyors to consistently evaluate requirements across organizations in all sectors, with varying structures and sizes, at different stages of the implementation process.

FIGURE 2.
MyMedRec



Canada's Research-Based Pharmaceutical Companies (Rx&D), the Canadian Nurses Association, the Canadian Pharmacists Association, the Canadian Medical Association, the Institute for Safe Medication Practices Canada, the Victorian Order of Nurses and the Best Medicines Coalition joined together to support development of this app.

Medication reconciliation continues to be a complex and challenging component of patient safety for healthcare organizations across Canada. Healthcare organizations that have successfully implemented medication reconciliation

have an overwhelming sense that medication reconciliation benefits patients, is the right thing to do and makes care safer. Communicating effectively about medications is a critical component of delivering safe high-quality care across all sectors of the Canadian healthcare system. The partnership between Accreditation Canada, CIHI, CPSI and ISMP Canada will continue to provide leadership, comparable data and information on best practices, as well as ongoing support to make care safer for all Canadians. **HQ**

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