Outstanding Issues in Medication Reconciliation

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Project Lead, ISMP Canada

http://www.ismp-canada.org/medrec/

CSHP PPC Satellite Symposia
Sponsored by Hospira Healthcare Corporation
Complimentary Online Continuing Education Module

Medication Reconciliation: Doing It Because It Is The Right Thing To Do

Introduction

Bob’s wife, Judy, started taking antidepressant medication in February 2007 to treat symptoms her doctor diagnosed as anxiety and depression related to the sudden diagnosis of a brain tumor.

Judy was admitted to the hospital in mid-August 2008 following a seizure in a restaurant. Within 12 hours, it was clear that something was very wrong. Judy was extremely upset and became increasingly agitated and incontinent. She refused to eat and was unable to tell her family and caregivers what was bothering her. An MRI showed no change in the brain tumor since a recent surgery, yet Judy’s health progressively deteriorated and she was moved to hospice care and continued to refuse to eat.

Almost four weeks into the hospital stay, Judy’s doctor casually mentioned that he had started her on an anti-depressant medication. Bob was horrified to learn that the anti-depressant Judy had been taking for the past 18 months was mistakenly discontinued on admission to the hospital.

This resulted in a relapse of her depression and Judy lost her will to live. Although the family knew that Judy’s progress was poor from the very beginning, notwithstanding her previous excellent health, this medication reconciliation failure resulted in needless suffering for Judy and her family.

This program provides pharmacists with practical information to understand medication reconciliation (MedRec) in the acute care setting and the role of patients and other healthcare providers in the process. Patients, like Judy, are at significant risk because their admission orders are not an accurate reflection of the medications they were actually taking prior to admission. The lack of admission MedRec, in Judy’s case, led to a devastating adverse drug event. MedRec is designed to reduce the potential for these adverse drug events.

CCCEP Accredited Available until August 22, 2014
Rx Briefcase 2013
1425 participants

- Pharmacist, 83.12%
- Retail, 38%
- Independent, 18%
- Hospital, 24%
- Unspecified, 11%
- Other, 12.92%
- General Practitioner, 2.97%
- Specialist, 0.93%
- Other, 9%

Other 12.9%

- Pharmacy Student, 61%
- Non-Medical Professional, 15%
- Registered Nurse (RN), 14%
- Nurse Practitioner (NP), 4%
- Physiotherapy, 1%
- Physician Assistant, 3%
- LPN, 1%

General Practitioner - 2.9%

- Family Physician, 64%
- General Practitioner, 36%
Thanks also to........

• Canadian Patient Safety Institute

• 2005 – 2014 MedRec Intervention
MedRec 2007

- Unknown – did not know what we did not know
- Systems not in place
- Measures not in place
- Studies not driving practice change
National Collaboration Now in its Ninth Year

2005
Safer Healthcare Now! (SHN) launched
Online MedRec community for sharing averages 1800 hits per month
MedRec Acute Care Getting Started Kit (GSK)

2006
MedRec education sessions begin
Canadian BPMH language appears internationally

2007
MedRec enrollment highest in SHN
MedRec Acute Care GSK V.2

2008
MedRec Long-Term Care GSK
BPMH Interview Guide

2009
National MedRec monthly calls begin
MedRec in Home Care Pilot Project finds approximately 2.3 discrepancies/client

2010
World Health Organization chooses Canada to lead MedRec in the High 5s
MedRec Home Care GSK

2011
High 5s Assuring Medication Accuracy at Transitions of Care: Standard Operating Protocol
MedRec National Summit of over 70 healthcare leaders identified 9 themes required to move MedRec forward in Canada

2012
Virtual series on implementing MedRec in Home Care attracts national teams
Canadian survey identified practice leaders, barriers and facilitators

2013
Canadian inter-professional joint statement endorsed by 13 associations
MedRec Acute Care GSK V.3

MyMedRec iPhone app (portable up-to-date health record) available on the App Store
National MedRec Strategy Year End Report

Knowledge is the Best Medicine website
Virtual series on MedRec at Discharge attracts national teams

Medication Reconciliation in Canada: Raising the Bar
Snapshot of MedRec in Canada

High 5s Medication Reconciliation Map
MedRec Quality Audit Tool to assess the quality of the MedRec process

National MedRec monthly calls attract 400 teams
Over 500 SHN teams are enrolled in MedRec
Objectives

To highlight:

• Current state
• Recent data
• Getting to where we want to be
  • Leadership
  • Measurement and Monitoring Quality
  • Role of technology
  • Role of pharmacy staff
• Updated Accreditation Canada ROPs
Tonight’s Audience

• MedRec Implementation?
  • Inpatient – Admission, Transfer, Discharge
  • Ambulatory
• Model of MedRec
  • Who collects BPMH – Pharmacy Staff, Nursing, Physicians?
• Use of Technology
  • Using technology for MedRec process?
Current State
**Survey**

**May 2013**

Objectives

1.1**

In 100% of hospitals\(^1\) and related healthcare settings, pharmacists will ensure that medication reconciliation\(^2\) occurs during transitions across the continuum of care (admission, transfer, and discharge).

<table>
<thead>
<tr>
<th>Objective</th>
<th>Progress (2011/12)</th>
<th>British Columbia</th>
<th>Prairies+</th>
<th>Ontario</th>
<th>Quebec</th>
<th>Atlantic@</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission</td>
<td>69% (2009/10)</td>
<td>85%</td>
<td>58%</td>
<td>97%</td>
<td>98%</td>
<td>77%</td>
</tr>
<tr>
<td>Transfer</td>
<td>41% (2009/10)</td>
<td>47%</td>
<td>42%</td>
<td>38%</td>
<td>73%</td>
<td>39%</td>
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<tr>
<td>Discharge</td>
<td>36% (2009/10)</td>
<td>44%</td>
<td>19%</td>
<td>50%</td>
<td>54%</td>
<td>43%</td>
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</tbody>
</table>

\(^1\) Hospital

\(^2\) Medication Reconciliation
Relatively few self-identified “MedRec All-Stars” who have MedRec in place across admission, transfer and discharge
More than one quarter of Canadians said that, in the past year, a doctor or pharmacist had not explained the side-effects of the drugs they were prescribed, had not given them a written list of their prescriptions, and/or had not reviewed all their medications with them.

It is still happening!!!
Recent Data
Got Med Wreck?
Targeted Repairs from the Multi-Center Medication Reconciliation Quality Improvement Study (MARQUIS)

Jeffrey L. Schnipper, MD, MPH, FHM
Director of Clinical Research, BWH Hospitalist Service
Associate Physician, Division of General Medicine, Brigham and Women’s Hospital
Associate Professor, Harvard Medical School
Review of 26 Studies

STUDY DESIGN

• 10 RCT
• 3 Non-RCT
• 13 Pre-Post

INTERVENTIONS

• 15 Pharmacist
• 6 IT-related
• 5 “Other” = staff education, use of standardized med reconciliation tool

QUALITY SCORE

(Based on USPSTF Criteria)

• 6 “Good” Quality
• 5 “Fair” Quality
• 15 “Poor” Quality
Conclusions

• Most robust literature is for pharmacy-related interventions:
  • 15/26 studies included
  • 4/6 good quality studies
  • Examined clinical outcomes (ADE, utilization)

• Successful interventions included:
  • Intensive pharmacy staff involvement
  • Focus on high risk subset of patients
Dr. Schnipper National Call

• Listen to the recording of this great call:

• [Dr. Schnipper call](#)
### ROI from Readmission Prevention

**Table 1: ROI Assumptions Table**

The following assumptions are made about the “model” hospital. These assumptions drive all cost figures in the ROI analysis table below. Each hospital must provide its own information into this assumptions table to derive institution-specific estimates for the ROI analysis. Updating the assumptions table will automatically revise figures in the ROI table.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Number of inpatient admissions per year</td>
<td>35,000</td>
</tr>
<tr>
<td>% of patients that are high-risk using MARQUIS criteria</td>
<td>25%</td>
</tr>
<tr>
<td>Number of patients that would need pharmacist discharge counseling</td>
<td>8750</td>
</tr>
<tr>
<td>Proportion of 30-day readmissions due to adverse drug events (A)</td>
<td>7%</td>
</tr>
<tr>
<td>Proportion of 30-day readmissions due to ADEs considered preventable or ameliorable (B)</td>
<td>65%</td>
</tr>
<tr>
<td>Expected proportion of 30-day readmissions due to ADEs that can be prevented by MARQUIS discharge counseling</td>
<td>22%</td>
</tr>
<tr>
<td>Number of 30-day readmissions that can be prevented per year</td>
<td>135</td>
</tr>
<tr>
<td>Cost of a readmission (e.g., under bundled payments and capitated contracts, not including VBP plus reduced risk of Medicare and MassHealth penalties)</td>
<td>$9,600</td>
</tr>
<tr>
<td>Annual savings to hospital as a result of avoided harmful medication errors</td>
<td><strong>$1,293,600</strong></td>
</tr>
<tr>
<td>Time (in minutes) required per admission for pharmacist to complete high-intensity pharmacist counseling (C)</td>
<td>39</td>
</tr>
<tr>
<td>Pharmacist hours required per year to perform medication reconciliation</td>
<td>5,688</td>
</tr>
<tr>
<td>Pharmacist FTE required per year to perform medication reconciliation</td>
<td>2.7</td>
</tr>
<tr>
<td>Pharmacist FTE needed to add to budget to staff FTEs (benefit time, etc)</td>
<td>3.6</td>
</tr>
<tr>
<td>Pharmacist salary</td>
<td>100,000</td>
</tr>
<tr>
<td>Pharmacist fringe benefit rate</td>
<td>35%</td>
</tr>
<tr>
<td>Total labor cost per pharmacist FTE</td>
<td><strong>$135,000</strong></td>
</tr>
<tr>
<td>Total labor cost for all additional pharmacist medication reconciliation FTE</td>
<td><strong>$479,883</strong></td>
</tr>
</tbody>
</table>

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Pennsylvania Patient Safety Advisory -2013

• 501 reports involving MedRec breakdowns in 1 year
• 69% at admission
• Events most often at prescribing (40%)
• Drug omission most frequent (26.7%)

Figure. Medication-Reconciliation-Related Events That Occurred from November 1, 2011, through November 31, 2012, by Node, as Reported to the Pennsylvania Patient Safety Authority (N = 501)

Table. Top Five Event Types Associated with Medication-Reconciliation-Related Events That Occurred from November 1, 2011, through November 31, 2012, as Reported to the Pennsylvania Patient Safety Authority

<table>
<thead>
<tr>
<th>EVENT TYPE</th>
<th>NO. OF EVENTS (%) BY CARE TRANSITION</th>
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<tbody>
<tr>
<td></td>
<td>Overall (N = 501)</td>
</tr>
<tr>
<td>Drug omission</td>
<td>134 (26.7)</td>
</tr>
<tr>
<td>Wrong dose</td>
<td>102 (20.4)</td>
</tr>
<tr>
<td>Additional drug or dose</td>
<td>90 (18.0)</td>
</tr>
<tr>
<td>Unknown</td>
<td>61 (12.2)</td>
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<tr>
<td>Wrong drug</td>
<td>40 (8.0)</td>
</tr>
<tr>
<td></td>
<td>Admission (N = 347)</td>
</tr>
<tr>
<td>Drug omission</td>
<td>90 (25.9)</td>
</tr>
<tr>
<td>Wrong dose</td>
<td>75 (21.6)</td>
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<tr>
<td>Additional drug or dose</td>
<td>55 (15.9)</td>
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<tr>
<td>Unknown</td>
<td>31 (8.9)</td>
</tr>
<tr>
<td>Wrong drug</td>
<td>31 (8.9)</td>
</tr>
<tr>
<td></td>
<td>Transfer (N = 43)</td>
</tr>
<tr>
<td>Drug omission</td>
<td>11 (25.6)</td>
</tr>
<tr>
<td>Wrong dose</td>
<td>2 (4.7)</td>
</tr>
<tr>
<td>Additional drug or dose</td>
<td>14 (32.6)</td>
</tr>
<tr>
<td>Unknown</td>
<td>13 (30.2)</td>
</tr>
<tr>
<td>Wrong drug</td>
<td>1 (2.3)</td>
</tr>
<tr>
<td></td>
<td>Discharge (N = 50)</td>
</tr>
<tr>
<td>Drug omission</td>
<td>12 (24.0)</td>
</tr>
<tr>
<td>Wrong dose</td>
<td>11 (22.0)</td>
</tr>
<tr>
<td>Additional drug or dose</td>
<td>9 (18.0)</td>
</tr>
<tr>
<td>Unknown</td>
<td>8 (16.0)</td>
</tr>
<tr>
<td>Wrong drug</td>
<td>4 (8.0)</td>
</tr>
<tr>
<td></td>
<td>Unknown (N = 61)</td>
</tr>
<tr>
<td>Drug omission</td>
<td>14 (23.0)</td>
</tr>
<tr>
<td>Wrong dose</td>
<td>14 (23.0)</td>
</tr>
<tr>
<td>Additional drug or dose</td>
<td>12 (19.7)</td>
</tr>
<tr>
<td>Unknown</td>
<td>9 (14.8)</td>
</tr>
<tr>
<td>Wrong drug</td>
<td>4 (6.6)</td>
</tr>
</tbody>
</table>
Pilot Study

Impact of an Outpatient Pharmacist Intervention on Medication Discrepancies and Health Care Resource Utilization in Posthospitalization Care Transitions

Emily M. Hawes¹,², Whitney D. Maxwell³, Sarah F. White⁴, Jesica Mangun¹,², and Feng-Chang Lin¹

- Prospective, randomized pilot study
- Effects of phmy clinic visit focused on MedRec after discharge on readmissions and ED visits
- Of 61 pts 54% had discrepancies at discharge; 50% resolved in Phm. arm of study vs 9.5% in usual care arm
- Significantly lower rates of 30 day readmits and ED visits
Objectives

To review:

- “Current state” in Canada
- Recent data
- **Getting to where we want to be**
  - Leadership
    - Measurement and Monitoring Quality
    - Role of technology
    - Role of pharmacy staff
- Updated Accreditation Canada ROPs
“Senior leadership commitment is critical to ensuring MedRec is implemented successfully across an organization. Accountability must rest with the CEO with clear reporting expectations at the board level.”

REF: Optimizing Medication Safety at Care Transitions: A National Challenge, 2011

Stories from Safer Healthcare Now tell us that THIS IS TRUE!!!!!
McGill – Moxxi Project

RightRx uses this “real-time” linkage to the Quebec health insurance agency (Régie de l’assurance maladie du Québec: RAMQ) to retrieve information on community medications and medical services.
Medication reconciliation at admission and discharge: a time and motion study

Ari N Meguerditchian¹,²,³*, Stanimira Krotneva¹, Kristen Reidel¹, Allen Huang⁴ and Robyn Tamblyn¹,⁵,⁶

Table 3 Time to complete medication reconciliation tasks at admission per hospital unit

<table>
<thead>
<tr>
<th>Medication reconciliation tasks</th>
<th>Geriatrics</th>
<th>Internal medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Overall</td>
<td>21</td>
<td>92.2 (44.3)</td>
</tr>
</tbody>
</table>

Table 4 Time to complete medication reconciliation tasks at discharge per hospital unit

<table>
<thead>
<tr>
<th>Medication reconciliation tasks</th>
<th>Geriatrics</th>
<th>Internal medicine</th>
<th>General surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>Mean (SD)</td>
<td>Min</td>
</tr>
<tr>
<td>Preparing the discharge prescription</td>
<td>21</td>
<td>29.0 (23.8)</td>
<td>5.2</td>
</tr>
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</table>

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Time and Motion Study McGill

• Workflow inefficiencies
• Lack of coordination, specialized training, agreement on roles, possible variability in quality and time required
• Standardization and use of electronic tools could improve efficiency
MEDICATION RECONCILIATION AS A STRATEGIC PRIORITY

NOTE: Accreditation Canada will move towards full implementation of medication reconciliation in two phases.

- For on-site surveys between 2014 and 2017, medication reconciliation should be implemented in ONE service (or program) that uses a Qmentum standard containing the Medication Reconciliation at Care Transitions ROP. Medication reconciliation should be implemented as per the tests for compliance for each ROP.
- For on-site surveys in 2018 and beyond, medication reconciliation should be implemented in ALL services (or programs) that use Qmentum standards containing the Medication Reconciliation at Care Transitions ROP. Medication reconciliation should be implemented as per the tests for compliance for each ROP.

The organization has a strategy to partner with clients to collect accurate and complete information about client medications and utilize this information during transitions of care.

GUIDELINES

Medication reconciliation is widely recognized as an important safety initiative. In Canada, Safer Healthcare Now! identifies medication reconciliation as a patient safety priority. The World Health Organization (WHO) has also developed a Standard Operating Protocol for medication reconciliation as one of its interventions designed to enhance patient safety. Properly conducted medication reconciliation reduces the possibility that medications will be inadvertently omitted, duplicated, or incorrectly ordered at transitions of care. Medication reconciliation can be a cost-effective way to reduce medication errors and can reduce the re-work that can be associated with managing client medications.

Safer Healthcare Now! offers a “Getting Started Kit” for various sectors (including acute care, long-term care, and home-care) at www.saferhealthcarenow.ca.
Objectives

To review:

• “Current state” in Canada
• Recent data
• Getting to where we want to be
  • Leadership
  • **Measurement and Monitoring Quality**
    • Role of technology
    • Role of pharmacy staff
• Updated Accreditation Canada ROPs
• Effective January 2014 Accreditation Canada’s MedRec Required Organizational Practices (ROP) includes a test for compliance in which organizations are required to monitor compliance with their medication reconciliation process, and make necessary improvements.

The audit tool is a user friendly method for meeting this ROP.

(More info at:
### National MedRec Quality Audit Tool

(for use at Admission for Acute and LTC)

**Contact Name and Phone Number (include area code):**

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<th>Year</th>
<th>2010</th>
<th>MONTH</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
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</table>

<table>
<thead>
<tr>
<th>Pt. #</th>
<th>A. Admit via</th>
<th>B. MedRec performed</th>
<th>C. BPMH vs1 source</th>
<th>D. Actual Med use verified by PC/Provider source</th>
<th>E. Each med has drug name, dose, strength, route, frequency on BPMH and Admission Orders</th>
<th>F. Every med in BPMH is accounted for in Admission Orders</th>
<th>G. Prescriber has documented rationale for 'Hold' and 'Discontinued' meds</th>
<th>H. Discrepancy communicated, resolved, and documented</th>
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<tbody>
<tr>
<td>1</td>
<td>EMERG</td>
<td>PRE-ADM</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
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<td>NO MEDS</td>
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</table>

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Literature suggests…..

A review of published articles found that 10-67% of patients had at least 1 prescription medication history error.

- when non-prescription medications were included the frequency of errors was 25-83%.

Authors suggest: “should be a comprehensive medication history that includes an interview, inspection of medication vials or lists, or both and contact with community pharmacies, or family physicians.”

<table>
<thead>
<tr>
<th>Pt. #</th>
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<th>C. BPMH &gt;1 source</th>
<th>D. Actual Med use verified by Pt/ Caregiver source</th>
<th>E. Each med has drug name, dose, strength, route, frequency on BPMH and Admission Orders</th>
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C. ‘BPMH - greater than one source’

C. BPMH based on >1 source

N = 2,040

- **ACUTE**
  - No Response: 0
  - No: 385
  - Unclear: 284
  - Yes: 1,030

- **LTC**
  - No Response: 0
  - No: 70
  - Unclear: 16
  - Yes: 253

60% of Patients
74% of Residents
Literature suggests...

- 66% of Canadians have sometimes used non-prescription medication in the past six months.
- 57% sometimes took vitamins and minerals, while 34% sometimes took herbal and natural products.


- Adherence- “the extent to which a person’s behavior [in] taking medication...corresponds with agreed recommendations from a health care provider”

  (World Health Organization, 2003).

- 12% of patients don’t fill their prescription at all.
- 12% of patients don’t take medication at all after they fill the prescription.
- 22% of patients take less of the medication than is prescribed on the label.

Adult Meducation http://www.adultmeducation.com/OverviewofMedicationAdherence_2.html
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<th>DAY</th>
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<th>B. MedRec Performed</th>
<th>C. BPMH &gt;1 source</th>
<th>D. Actual Med use verified by Pt/Caregiver source</th>
<th>E. Each med has drug name, dose, strength, route, frequency on BPMH and Admission Orders</th>
<th>F. Every med in BPMH is accounted for in Admission Orders</th>
<th>G. Prescriber has documented rationale for ' Holds' and 'Discontinued' meds</th>
<th>H. Discrepancy communicated, resolved, and documented</th>
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D. ‘Med Use Verified by Pt/Caregiver’

D. Actual medication use verified by pt./caregiver interview

N=2,044

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Literature suggests....

Medication discrepancy was defined as a difference between the medication use history (BPMH) and the admission medication orders.

In the sample of patients admitted to general medicine unit:

- **54%** of patients had at least one unintentional discrepancy identified (most common type was omission of a regularly used medication)
- **38%** of these discrepancies were judged to have the potential to cause moderate to severe discomfort or clinical deterioration
## Contact Name and Phone Number (include area code):

<table>
<thead>
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<th>C. BPMH ≥ 1 source</th>
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F. ‘Meds on BPMH+Admin Order’

F. Every medication in the BPMH is accounted for in the Admission Orders

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October 2013 was National MedRec Quality Audit Month

- 2340 patients
  - 1906 Acute Care
  - 329 Long Term Care

- 103 Organizations

- 29% (acute care)
  - Met all 5 quality criteria

- 55% (Long Term Care)
  - Met all 5 quality criteria
Results Summary Comments

• Need to critically evaluate admission processes to ensure quality of MedRec processes at other transitions

• However, audit tool results demonstrate need for ongoing and specific improvements

• Many people believe they are doing MedRec but they may not be doing it well
  • The foundation of the process – the BPMH needs work
Objectives

To review:

• “Current state” in Canada
• Recent data
• Getting to where we want to be
  • Leadership
  • Measurement and Monitoring Quality
  • **Role of technology**
  • Role of pharmacy staff
• Updated Accreditation Canada ROPs
Paper to Electronic Project Online Survey*

*Response rate = 212
“if you don’t use the right paper to electronic system you will increase medication errors”

Dr. Jeffrey Schnipper, MD, MPH, FHM
“Got Med Wreck? Targeted Repairs from the Multi-Center Medication Reconciliation Quality Improvement Study (MARQUIS)”
January 14, 2014
Motivation for Moving to eMedRec

- Integrates electronic data from multiple sources (electronic and non-electronic)
- Provides electronic tools and user interfaces for comparing medication lists
- Facilitate discharge MedRec with multiple sources of information
Recommendations

• Understand **current workflow** before implementing
• Understand how eMedRec can **integrate** with existing and planned health information system infrastructure
• Obtain management and financial **support** (including ongoing for sustainability)
• Need to carefully stage eMedRec implementation
Tools/ Checklists

• Organizational Readiness
• Steps to support the safe transition to eMedRec
• Ideal features of eMedRec
• Evaluation of eMedRec
Objectives

To review:

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INTER-PROFESSIONAL ENGAGEMENT

OFFICIAL PUBLICATIONS

Medication Communication Failures Impact EVERYONE!

PATIENT & FAMILY
- loss of life
- prolonged disability
- temporary harm
- compounded recovery
- loss of income
- confusion about treatment plan

HEALTHCARE SYSTEM
- prolonged recovery time
- increased cost and staff time due to errors
- avoidable restrictions and Emergency department visits
- reduced access to health services

SOCIETY
- loss of productivity
- workplace absenteeism
- increased costs
- loss of public confidence in the healthcare system

Medication Safety: We all have a role to play.

Safe patient care depends on accurate information. Patients benefit when doctors work with patients, families, and their colleagues to collect and share current and comprehensive medication information. Medication reconciliation is a formal process to do this at care transitions, such as when patients enter the hospital, are transferred or go home. We all have a role to play.

Accreditation Canada, the Canadian Nurses Association, the Canadian Medical Association, the Canadian Pharmacists Association, the Canadian Society of Hospital Pharmacists, the College of Family Physicians Canada, the Royal College of Physicians and Surgeons of Canada, Canadian Patient Safety Institute and the Institute for Safe Medication Practices Canada actively support strategies to improve medication safety and call on all healthcare professionals to contribute to effective communication about medications at all transitions of care to improve the quality and safety of our Canadian healthcare system.

The Canadian Society of Hospital Pharmacists and the Institute for Safe Medication Practices Canada support the leadership role of pharmacists in ensuring comprehensive and timely medication reconciliation. Pharmacists are uniquely qualified to lead the development, implementation, evaluation, and improvement of medication reconciliation processes.

Canadian Society of Hospital Pharmacists
Société canadienne des pharmaciens d’hôpitaux

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Evidence-Derived Clinical Pharmacy Key Performance Indicator Critical Activity Areas (Doucette 8)

- Best Possible Medication History
- Admission Medication Reconciliation
- Patient Care Rounds
- Pharmaceutical Care
- Disease or Drug-Specific Quality Indicators
- Patient Education/Discharge Counseling
- Discharge Medication Reconciliation
- Post-Discharge Follow-Up
Medication Management
Patient-centred care to optimize safe, effective and appropriate drug therapy. Care is provided through collaboration with patients and their health care teams.

Clinical Medication Review
Addresses issues relating to the patient’s use of medication in the context of their clinical condition in order to improve health outcomes.

Medication Reconciliation
A formal process in which healthcare providers work together with patients to ensure accurate and comprehensive medication information is communicated consistently across transitions of care.

Best Possible Medication History
A complete and accurate list of all the medications a patient is taking created using at least 2 sources of information including a client and/or family interview.

1. Developed collaboratively by the Canadian Pharmacists Association, Canadian Society of Hospital Pharmacists, Institute for Safe Medication Practices Canada, and University of Toronto Faculty of Pharmacy, 2012
2. www.health.gov.bc.ca/pharmacare
3. ISMP Canada. Medication Reconciliation in Acute Care: Getting Started Kit. 2011
4. ISMP Canada. Medication Reconciliation in Acute Care: Getting Started Kit. 2011

Adapted from Fraser Health, Providence Health Care, Provincial Health Services Authority, Vancouver Coastal Health
Medication reconciliation is a prerequisite for obtaining a valid medication review

Mette Bjeldbak-Olesen², Anja Gadsbølle Danielsen², Dorthe Vilstrup Tomsen¹ & Tomas Joen Jakobsen³

Retrospective review of 75 patient charts found:

- **198** medication discrepancies were identified (mean 2.6 per patient)
  - 15% of the discrepancies were deemed potentially serious or fatal
  - 62% were potentially significant
  - 23% were potentially non-significant

- **129** drug-related problems were identified by medication review (mean 1.7 per patient)
  - 35% were potentially serious or fatal
  - 29% were potentially significant
  - 36% were potentially non-significant
Role of the pharmacy technician
EDUCATION AND TRAINING

Case studies - views from the frontline

50% could benefit from refresher classes on medication reconciliation
50-70% never received training in how to take a BPMH
80% never received feedback on the quality of pre-admission medication histories
60% not given sufficient time to take a BPMH
60-75% not given sufficient time to do med rec well in high-risk patients
70% feel hospital doesn’t have enough staff allocated for med rec in high-risk patients
50% never been trained in ‘teach-back’ or use it as part of DC education
50% never received training in communicating with low health literacy patients

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Teaching Medication Reconciliation Through Simulation: A Patient Safety Initiative for Second Year Medical Students

Lee A. Lindquist, MD MPH1,3, Kristine M. Gleason, RPh2, Molly R. McDaniel, PharmD2, Allain Doeksan, BA1, and David Liss, BA1

1Northwestern Center for Patient Safety, Institute for Health Care Studies, Northwestern University Feinberg School of Medicine, Chicago, IL, USA; 2Northwestern Memorial Hospital, Chicago, IL, USA; 3Division of Geriatrics, Northwestern University Feinberg School of Medicine, Chicago, IL, USA.

Medication-Reconciliation Interprofessional Event

January 13, 2014

Nursing students are invited to join more than 400 Pharmacy third year and Medicine fourth year students in an innovative Medication-Reconciliation Interprofessional Event to be held at UBC on Monday, January 13, 2014.

Groups of eight multidisciplinary learners will participate in an engaging and collaborative problem-solving session related to a patient’s medication use across transitions of care. Situated in a hospital patient discharge planning meeting setting, students will assess the patient’s records for unintentional medication discrepancies and the risk of adverse drug events.

Undergraduate Healthcare Practitioner Education
Objectives

To review:

• “Current state” in Canada
• Recent data
• Getting to where we want to be
  • Leadership
  • Measurement and Monitoring Quality
  • Role of technology
  • Role of pharmacy staff
• Updated Accreditation Canada ROPs
Accreditation Canada ROP
Changes for 2014

For services that use standards that contain an applicable MedRec ROP:

• For on-site surveys between 2014-2017, MedRec must be implemented across admission, transfer and discharge in ONE service

• For surveys 2018 onwards, MedRec must be implemented across admission, transfer and discharge in ALL services

Accreditation Canada ROPs
Changes in 2015

Inclusion of MedRec in Emergency Department for NON-ADMITTED patients

REVISED for on-site surveys starting January 2015

MEDICATION RECONCILIATION AT CARE TRANSITIONS

Emergency Department
For the Emergency Department Standards

With the involvement of the client, family, or caregiver (as appropriate), the team generates a Best Possible Medication History (BPMH) and uses it to reconcile client medications for clients with a decision to admit and at visits where the client is at risk of potential adverse drug events.* Organizational policy determines which types of visits require medication reconciliation.

*Clients are at risk of potential adverse drug events when their care is highly dependent on medication management AND client factors or the medications typically used are known (based on available literature and internal data) to be associated with potential adverse drug events.
To Review: Objectives

- “Current state” in Canada
- Recent data
- Getting to where we want to be
  - Leadership
  - Measurement and Monitoring Quality
  - Role of technology
  - Role of pharmacy staff
- Updated Accreditation Canada ROPs