Interior Health

RENAL PROGRAM

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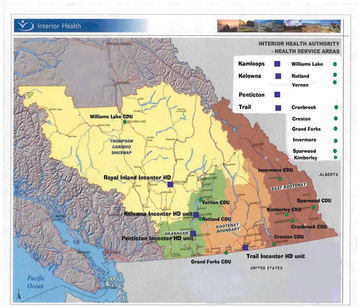
Medication Reconciliation Standardization in the Interior Health Authority Renal Program

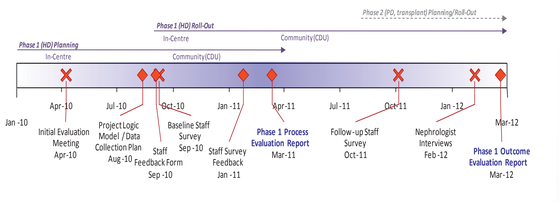
Introduction

Medication Reconciliation is a multi-step process to obtain a complete and accurate patient medication list (including nonprescription and alternative medications) and comparing this list with both documentation in the patient's medical record during ambulatory care visits and the physician's admission, transfer, and/or discharge orders in inpatient settings[1]. In patients with CKD, the maintenance of an up-to-date medication list, using MedRec to identify discrepancies, reduces adverse drug events[2]. MedRec provides a challenge to healthcare professionals in all settings. Unique challenges are faced when standardizing MedRec in an ambulatory care setting renal program that is part of a health authority with a large, geographical area containing 4 in-center dialysis sites and 8 CDU's overseen by 8 nephrologists. In Interior Health this challenge is compounded by minimal pharmacy support. Our goal was to develop and implement a renal program-wide, sustainable MedRec process using existing staffing complement composed primarily of nurses, with only 1.25 full-time equivalent of clinical pharmacists available for the entire program.



Methods

- Project team consisted of a project lead, regional renal pharmacist, renal program medical director and program director
  - Held biweekly meetings to discuss progress and continue planning
- Project lead provided monthly status reports to all stakeholders
- Project charter developed in March 2010 with stakeholder involvement from Regional Pharmacy Director, Vice-president of Tertiary Services, Quality Improvement leads, nephrologists and renal managers



- An Evaluation Analyst was contracted to:
  - assist with project planning at team meetings
  - develop a Logic Model and a Data Collection Plan
  - prepare an Evaluation Report at the end of phase 1

Plan-Do-Study-Act

- Held focus groups at all HD sites from February to July, 2010 to process map their current practice to review medications at admission to the renal program and to prepare for rounds
- The process maps from each site were reviewed and combined to adhere to pre-established MedRec guidelines from the Safer Healthcare Now! "Acute Care Getting Started Kit" to create a one page draft procedure for HD units
- PDSA of the proposed process trialed at each site with one or two patients
  - Nurse provided with a blue medication bag, an interview guide, and a form to provide feedback (both negative and positive)
- Feedback reviewed and used to modify the process as necessary and PDSA's repeated until a standardized process was accepted by all sites

Staff Engagement

- The Evaluation Analyst sent a voluntary survey to the HD nurses prior to implementation and once again one year later to assess their MedRec knowledge, its importance in patient care, and opportunities for further education
- Staff Education was provided by the project lead and regional renal pharmacist through small group sessions with over seventy nurses, one pharmacist, and six unit clerks during site visits between September 2010 and February 2011
  - o The value of the in-person visits were evident through the conversations with the staff, making the 2700 km driven around the Health Authority (HA) during these months worthwhile!
  - o Live meeting interactive education sessions offered for staff that was not available during the site visits
  - o One page Quick Reference Guides outlining the process for medication reviews, data collection, and accessing/using PROMIS MedRec reports developed to assist staff
    - available on the HA InsideNet
  - o Regular updates on the MedRec project provided in the Quarterly Renal Newsletter, as well as in a MedRec newsletter in June 2012
- Celebrate Success!! Water bottles were distributed to all staff in recognition of their hard work to improve the MedRec process for their renal patients

"Take the time for the Conversation"

Patient Engagement

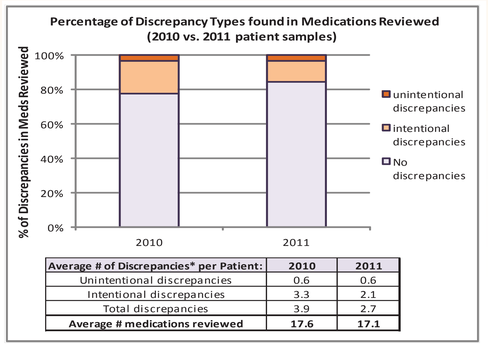
The model of patient and family centered care was used to engage patients (or caregivers) in the management of their medication list by:

- Encouraging their participation in a Best Possible Medication History interview
- Providing them with blue Medication Bags to transport their medications in for the interview
- Distributing patient letters explaining the importance of medication reviews and sharing information about changes or issues with their medications
- Weekly check-in by the nurse with the HD patients about any changes to or problems with their medications

Results

After one year of project implementation:

- Percentage of medications that contained a discrepancy and the average number decreased from 23 to 15% and 3.9 to 2.7 per patient, respectively
- The average number of discrepancy per patient of 2.7 was still greater than the overall goal of less than 1 per patient, however the unintentional discrepancies, which are the potentially more serious type of discrepancy, was 0.6 per patient at baseline and one year later
- The average number of medications per patient was similar both years, at an average of 17 medications per patient



Average # of Discrepancies* per Patient:	2010	2011
Unintentional discrepancies	0.6	0.6
Intentional discrepancies	3.3	2.1
Total discrepancies	3.9	2.7
Average # medications reviewed	17.6	17.1

* GOAL: < 1.0/patient
**Source: Pharmacist Sample '
(n=966 meds)

- Over 85% of the HD staff surveyed stated that there were now clear processes and tools in place to conduct a BPMH, update the medication lists in PROMIS, and to communicate the medication information to the patient and other caregivers.

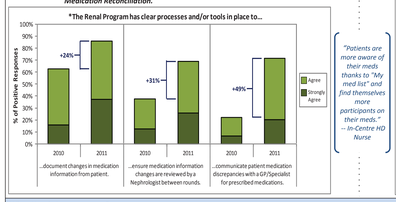
February 9, 2012

1 Year into IH Renal Medication Reconciliation: Staff Survey Update and Project Next Steps

As part of a larger evaluation of the phased Renal Medication Reconciliation (Med Rec) project, Renal Hemodialysis (HD) Nursing staff* were surveyed in 2010 and 2011 about ***processes, tools and time required*** for review of renal patient medication practices. This summary outlines key findings from the follow-up survey (1-year into the Renal Med Rec project) and related project next steps.

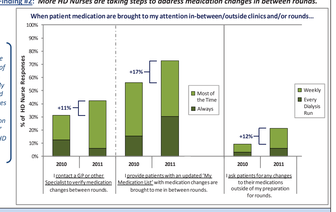
What's Working Well? Compared to 2010...

Key Finding #1: ***More HD Nurses agree that the IH Renal Program has clear processes/tools in place for Medication Reconciliation.***



"Patients are more aware of their meds thanks to "My med list" and find themselves more participants on their meds." — In-Centre HD Nurse

Key Finding #2: ***More HD Nurses are taking steps to address medication changes in between rounds.***



What Needs Improvement?

Key Finding #3: ***HD Nursing staff identified areas that still need improvement in the Renal Med Rec project, in particular:***

- Improved communication of patient medication between Renal Units and GPs; and
- Improved clarity regarding the pharmacists' role in Renal medication reconciliation processes.

"[What can be improved is] better use of our Pharmacist. Also, it would be beneficial if family physicians could fax medication changes to the dialysis unit when they make them so that we had a copy of the order." — In-Centre HD Nurse

*Note: A limitation to these follow-up survey findings is the under-representation of Kamloops/Williams Lake HD; only 2 HD nursing staff or 13% of eligible HD Nurses in area participated in 2011.

What's Next for Renal Medication Reconciliation?

Over then next year (2012/13), the Med Rec Project team aims to 1) build upon strengths and 2) address what still needs improving with Renal medication reconciliation processes, including:

- A greater focus on med rec during **patient transitions**, including tools for Renal patient med reviews within 1 week of discharge from acute care;
- Exploring ways to **work with community pharmacists** for medication reconciliation in the ambulatory/CKD setting; and
- Investigating better ways to **communicate patient medication information** between various points of care (in particular Renal Units and GP offices).

For more information please contact Jennifer Miller, Evaluation Analyst (Jennifer.miller@interiorhealth.ca) or Mary Lou Lester, Med Rec Project Lead (MaryLou.Lester@interiorhealth.ca).

Conclusion

The project team, with support from an Evaluation Analyst were able to successfully standardize a MedRec process in the Interior Health Renal Program outpatient HD program primarily using nurses. Lessons learned through the Evaluation report and reflections on the project were used to plan the spread of the MedRec project to the peritoneal dialysis, transplant, and CKD patients.

References:

1.Cardone Ke, Bacchus S, Assimon M et al. Medication-related problems in CKD. Adv Chron Kid Dis 2010; 5: 4040-412.
2.Leonhardt K, Bonin D, Pagel P, How to Improve Medication Reconciliation in the Outpatient Setting through a Patient-Centered Approach, Aurora Healthcare 2007; page 5