A Targeted Pharmacist Intervention to Reduce Medication Related Readmissions

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Aim

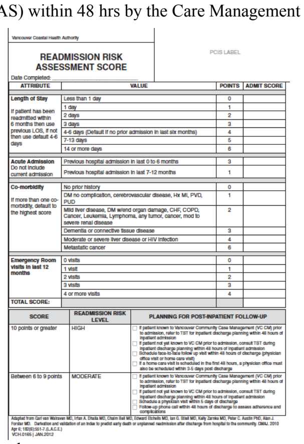
To improve medication management of pts at high risk for readmission by integrating clinical pharmacists into the hospital's Ideal Transition Home initiative.
To minimize any potential medication related factors that could lead to hospital readmission.

Issue

- Hospital readmissions are an important quality control indicator
- Literature evidence has indicated:
  - Medical inpatients readmission costs 42% more than the index admission
  - 28% of readmissions related to medication management issues
  - 32% of pts & caregivers have expressed a desire for more communication about their medications
  - 73% say a lack of information was a factor in their readmission
- Clinical pharmacists can address medication related issues but were not initially integrated into the Ideal Transition Home Program

Context

- All pts admitted to the general medicine wards at Vancouver General Hospital (VGH) are assessed using the Readmission Risk Assessment Score (RRAS) within 48 hrs by the Care Management Leaders (CMLs)



Vancouver Coastal Health Authority

PCIS LABEL

READMISSION RISK ASSESSMENT SCORE

Date Completed: ____________

ATTRIBUTE	VALUE	POINTS	ADMIT SCORE
Length of Stay If patient has been readmitted within 6 months then use previous LOS, if not then use default 4-6 days	Less than 1 day	0	
	1 day	1	
	2 days	2	
	3 days	3	
	4-6 days (Default if no prior admission in last six months)	4	
	7-13 days	5	
	14 or more days	6	
Acute Admission Do not include current admission	Previous hospital admission in last 0 to 6 months	3	
	Previous hospital admission in last 7-12 months	1	
Co-morbidity If more than one co-morbidity, default to the highest score	No prior history	0	
	DM no complication, cerebrovascular disease, Hx MI, PVD, PUD	1	
	Mild liver disease, DM w/end organ damage, CHF, COPD, Cancer, Leukemia, Lymphoma, any tumor, cancer, mod to severe renal disease	2	
	Dementia or connective tissue disease	3	
	Moderate or severe liver disease or HIV infection	4	
	Metastatic cancer	6	
Emergency Room visits in last 12 months	0 visits	0	
	1 visit	1	
	2 visits	2	
	3 visits	3	
	4 or more visits	4	
TOTAL SCORE:			

SCORE	READMISSION RISK LEVEL	PLANNING FOR POST-INPATIENT FOLLOW-UP
10 points or greater	HIGH	☐ If patient known to Vancouver Community Case Management (VC CM) prior to admission, refer to TST for inpatient discharge planning within 48 hours of inpatient admission ☐ If patient not yet known to VC CM prior to admission, consult TST during inpatient discharge planning within 48 hours of inpatient admission ☐ Schedule face-to-face follow up visit within 48 hours of discharge (physician office visit or home care visit) ☐ If a home care visit is scheduled in the first 48 hours, a physician office must also be scheduled within 3-5 days post discharge
Between 6 to 9 points	MODERATE	☐ If patient known to Vancouver Community Case Management (VC CM) prior to admission, refer to TST for inpatient discharge planning within 48 hours of inpatient admission ☐ If patient not yet known to VC CM prior to admission, consult TST during inpatient discharge planning within 48 hours of inpatient admission ☐ Schedule a physician visit within 5 days of discharge ☐ Follow-up phone call within 48 hours of discharge to assess adherence and complications

Adapted from Carl van Walraven MD, Irfan A. Dhalla MD, Chaim Bell MD, Edward Etchells MD, Ian G. Stiell MD, Kelly Zarnke MD, Peter C. Austin PhD, Alan J. Forster MD. Derivation and validation of an index to predict early death or unplanned readmission after discharge from hospital to the community. CMAJ. 2010 Apr 6; 182(6):551-7.(L.A.C.E.)
VCH.0165 | JAN.2012

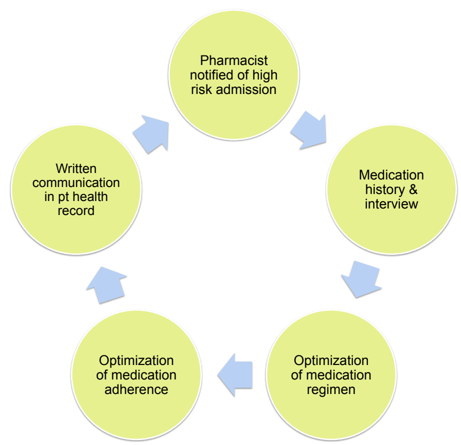
- High risk pts have:
  - Family physician's office notified
  - Care plan discussed at daily interprofessional rounds
  - Written documentation provided to pt, family physician, and other community partners involved in their care at discharge
- Hospital Clinical Pharmacists that practice on the Acute Medicine Units independently assess pts and provide care

Methods

- A retrospective review of the clinical pharmacist documentation of the first 6 months of program implementation (Nov 2013 to May 2014)
- Health records review of all pts readmitted to VGH within 30 days to determine if any medication related reasons for readmission occurred

Identification of Intervention

- As of November 2013 clinical pharmacists provided targeted comprehensive assessments of pts identified as being at high risk for readmission

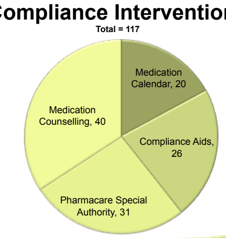


Results

Baseline Characteristics	Total Sample N = 497	Intervention Group N = 353	No Intervention N = 144	Readmission Group N = 102
Age	70.4 ± 16.4 yrs	72.4 ± 15.9 yrs	65.4 ± 16.6 yrs	70.8 ± 14.5 yrs
Female	221 (44%)	158 (44.8%)	61 (42.4%)	47 (36%)
HRRAS Score	11.1± 3.3	11.4 ± 2.3	11.4 ± 2.3	12 ± 2
Readmissions	102 (20.5%)	78 (22%)	24 (16.7%)	

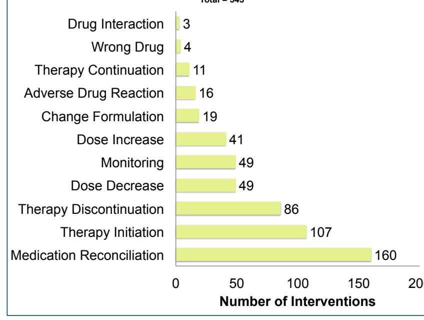
Compliance Interventions

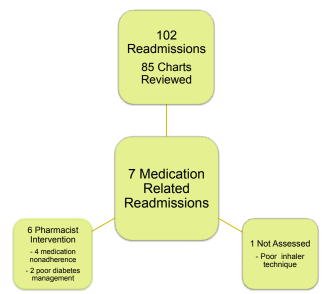
Total = 117



Clinical Interventions

Total = 545


Drug Interaction 3
Wrong Drug 4
Therapy Continuation 11
Adverse Drug Reaction 16
Change Formulation 19
Dose Increase 41
Monitoring 49
Dose Decrease 49
Therapy Discontinuation 86
Therapy Initiation 107
Medication Reconciliation 160
0
50
100
150
200
Number of Interventions



Summary of Lessons Learned

- Clinical pharmacists have the expertise to address medication management issues that may lead to hospital readmission.
- Integrating them into institutional initiatives targeted at pts at high risk for readmission is important.
- Once integrated they can offer a comprehensive assessment of the pts medication therapy & adherence to help prevent medication related reasons for readmission.

Sustainability

- Continued provision of comprehensive medication assessment for high risk for readmission patients has continued.
- Inclusion of process in pharmacist orientation material and quality control checks for completeness have occurred.

Acknowledgements

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