Pharmacist-directed post-acute transition of care to decrease readmission rates for high risk patients

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Abstract #21
IRB exempt

Disclosure

- Chelsea Garcia
- Potential conflicts of interest: none
- Sponsorship: none
- Proprietary information of results of ongoing research may be subject to different interpretations
- Presentation is educational in nature and indicates agreement to abide by non-commercialism guidelines provided

Objectives

- Identify common chronic disease states associated with hospital readmissions
- Assess the role of the pharmacist in an interdisciplinary healthcare team for providing transition of care targeting medication reconciliation, errors, and education
- Describe activities a transition of care pharmacist can perform to reduce readmissions

Background

- According to John Hopkins, patients with chronic disease states (as defined by the Centers for Medicare & Medicaid) account for 81% of hospital admissions, 91% of prescriptions filled, and can have higher 30-day readmission rates due to polypharmacy and misunderstood instructions.

Hospital Accreditation Standards 2017

- MM.05.0101
- MM.06.01.01
- MM.06.01.03
- NPSG.03.05.01
- NPSG.03.06.01
- PC.02.01.05
- PC.02.02.01
- PC.02.03.01
- PC.04.01.01
- PC.04.01.05
- PC.04.02.01
- RC.01.01.01
- RC.02.01.01
- RC.02.04.01
- RI.01.01.03
- RI.02.01.01

Setting

- Single-center, three-story hospital with 72 beds, 6 of which are ICU
- Services offered: OB/GYN, ICU, Acute Care, Emergency Department, Internal Medicine, Family Practice, Diabetes Center, Anticoagulation Clinic, Lipid Clinic, Orthopedic, Infusion Clinic, Pediatrics, Dentistry, Ophthalmology, Surgery
- Justify need for FTE transition of care pharmacist via comparative evaluation of readmissions before and after implementing this role
- Collaborative interventions with multiple members of the health team
  - Rounding with hospitalist
  - Meeting with social workers and nurses
  - Discharge medication process

Baseline Data: 2017 Principal Readmission Diagnoses

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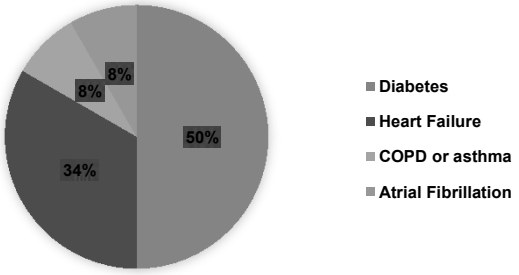

Purpose

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- To reduce readmission rates through identifying gaps in medication education and to provide easier access to a pharmacist to reconcile post-discharge problems with medication lists, instructions, side effects, and therefore increase medication compliance.
- Hypothesis: If a transition of care pharmacist role is added to the CNMC, then readmission rates for patients included in the study will be reduced

Participation Criteria

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- Inclusion Criteria
  - ≥18 years old
  - English-speaking
  - Admitted to inpatient with ≥1 of the following disease states:
    - Asthma
    - Atrial Fibrillation
    - COPD
    - Diabetes Mellitus
    - Heart Failure
    - Hypertension
- Exclusion Criteria (any 1 of these)
  - No reliable means to obtain medication
  - Psychiatric admission
  - Positive for substance abuse
  - No reliable telephone access
  - Deaf
  - Unable to care for self
  - No primary care provider
  - Positive for dementia

Protocol

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Discharge with medication education, Q&A, and medication survey

Follow-up telephone Q&A appointment with the pharmacist in 1 week with medication survey

Follow-up telephone Q&A appointment with the pharmacist in 1 month with medication survey

Medication Action Plan (MAP) Example

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My Medication-Related Action Plan	
Primary Doctor (phone):	Pharmacy/Pharmacist (phone): Chelsea Garcia 8am-5pm 580-272-1049
Date Prepared:	Next pharmacist appointment:
The Action Steps below will help you get the most from your medications. Follow the checklist to help you work with your pharmacist and doctor to manage your medications AND make notes of your actions next to each item on your list.	
Action Steps → What I need to do…	Notes → What I did and when I did it…
Finish antibiotics: Fluconazole one dose Ciprofloxacin 500 mg tablet: 1 twice daily (every 12 hours)	
Keep your one-week follow up appointment with your doctor!	3/24/2018 with Dr. FeelBetter @ 1:00 pm
Put an alarm for the days when you need medication refills so you don't miss any days.	

Medication Reconciliation

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My Medication Record									
Name: Include **all** of your medications on this record: **prescription** medications, **over-the-counter** medications, **herbal** products, and other dietary **supplements**. Always carry your medication record with you and show it to all your doctors, pharmacists and other healthcare providers.									
Medication		**Take for…**	**When do I take it?**				**Start Date**	**Stop Date**	**Doctor**
Name	Dose		Morning	Noon	Evening	Bedtime			

Interventions

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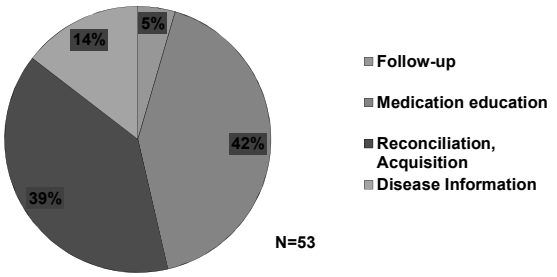

Results to date

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- 53 patients completed the project period
  - 6 readmissions (11.3%)
    - One due to incidental lung cancer finding
  - 10 ER visits (18.8%)
- Intervention Distribution
  - Follow-ups: 5 gaps closed
  - Medication Education: 44 events where lack of education could cause harm or suboptimal outcomes
  - Medication Reconciliation: 39 cases of medication errors, omissions, duplications, lack of DME, or noncompliance
  - Disease State Information: 16 sessions a patient without adequate knowledge to stay healthy was instructed

Challenges to date

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- Patients who cannot receive phone calls until after normal working hours
- Workflow interruptions to make follow-up calls or discharge patients
  - Not enough time to accommodate accumulating patient numbers
- No "standard" amount of time spent with each patient for education
- Medications being prescribed after discharge medications have already been sent, filled, and brought to patient
- Withdrawing discharges after patient has been counseled
- Medications being too large in size or number to use the pneumatic tube system
  - Insulin

Successes

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- **Antimicrobial Stewardship:** Interventions for patients wanting to stop antimicrobial courses prematurely
- **Medication Reconciliation:** Clarifying dose strength or patient instructions for chronic home medications for carry-over into outpatient setting
- **Access to Care:** Ensuring proper healthcare follow-up
- **Medication Education:**
  - When to take or hold medications, indications, side effects
  - Hypoglycemia, Hypotension, Fluid retention/restriction
- **Medication Adherence:** 100% fill rate for new prescriptions and timely refills for all patients enrolled

Study	Intervention	Primary Outcomes	Sample	Results
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Group Health Cooperative in Washington State	Pharmacist phone call 3-7 days post-discharge for MTM	Readmission rates, financial savings, and medication discrepancies	494 patients followed until 30 days post-discharge	Reduced readmission rates up to 30 days post-discharge ($35,000 in savings per 100 patients)
STAAR initiative	RN for patient coaching and transitional care (TC) pharmacist for pre-discharge med rec and post-discharge phone calls	All-cause 30-day readmission rates	2620 inpatients with high risk readmission received nursing interventions and 539 of the 2620 patients received pharmacy interventions	Reduced ED visits by 13%, reduced readmission by 30%, cost savings of $2.65 per dollar spent to Medicare[2,3]. Patients with the TC calls decreased readmissions to 12.9% (p=0.55) compared to decrease15.8% with nocalls.
REACH program[4,5]	Complete REACH intervention	Death or hospital admission un/related to HF	89 patients total with 47 patients in REACH group	reduced 30-day readmission by 50%

Conclusion

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- Pharmacists can reduce hospital readmissions and save institutions cost of treatment and penalty costs for 30-day readmission
- Pharmacists are under-utilized in the transitions-of-care and post-discharge chronic disease state management
- Pharmacists can take some of the burden off of PCPs during the post-discharge follow-up through
  - better transition of medication information
  - protocol-driven visits for routine medication questions or adjustments

References

1. Kilcup M, Schultz D, Carlson J, Wilson B. Postdischarge pharmacist medication reconciliation: Impact on readmission rates and financial savings. *Journal of the American Pharmacists Association*. 2013;53(1):78-84. doi:10.1331/japha.2013.11250.
2. Carter JA, Carr LS, Collins J, et al. STAAR: improving the reliability of care coordination and reducing hospital readmissions in an academic medical centre. *BMJ Innovations*. 2015;1(3):75-80. doi:10.1136/bmjinnov-2015-000048.
3. Erickson, Amy. Targeting transitions: Pharmacists critical to reducing readmissions. *PharmacyToday: Health-System Edition*. 2013; 6-7. http://www.pharmacytoday.org/article/S1042-0991(15)31280-9/pdf
4. Mansukhani RP, Bridgeman MB, Candelario D, Eckert LJ. Exploring Transitional Care: Evidence-Based Strategies for Improving Provider Communication and Reducing Readmissions. *Pharmacy and Therapeutics*. 2015;40(10):690-694.
5. Hauser D, Sjeime M. The Medication REACH Program [PowerPoint slides]. Retrieved from http://www.ehcca.com/presentations/readsummit4/sjeime_ms1.pdf

Self Assessment Question #1

- Chronic disease states account for what percentage of hospital admissions?
  - a. 91%
  - b. 95%
  - c. 81%
  - d. 85%

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  - a. 91%
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  - d. 85%

Self Assessment Question #3

- True or False. Up to 30% of patients fail to fill first-time medications after hospitalization.

Self Assessment Question #3

- True. Up to 30% of patients fail to fill first-time medications after hospitalization.

Tamblyn R, Eguale T, Huang A, Winslade N, Doran P. The Incidence and Determinants of Primary Nonadherence With Prescribed Medication in Primary Care: A Cohort Study. Ann Intern Med. 2014;160:441–450. doi: 10.7326/M13-1705