Pharmacists' Role in Care Transitions

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Disclosures

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IRB Status: exempt

Conflicts of interest: none

Project sponsorship: none

Learning Objectives

Identify care transitions where pharmacists can impact patient care through education and medication reconciliation.

List strategies to improve patient care during transitions of care.

St. Peter's Hospital

https://www.stpetes.org/sites/default/files/Hospital-big.jpg

St. Peter's Hospital is a 123-bed community hospital servicing Helena, Montana and the surrounding area

Background

Nearly one fifth of patients experience an adverse event following hospital discharge. Sixty percent of adverse events are preventable and related to medication errors.[1,2]

1. Foster AJ, Clark HD, Menard A, et al . Adverse events among medical patients after discharge from hospital. CMAJ. 2004;170:345-349.
2. Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. The incidence and severity of adverse events affecting patients after discharge from the hospital. Ann Intern Med 2003;138:161-167.

Background

Pharmacist involvement in hospital discharge improves patient outcomes by resolving medication discrepancies, preventing ADRs, and improving patient understanding of medications.[3-6]

3. Schnipper JL, Kewin JL, Cotugno MC, et al. Role of pharmacist counseling in preventing adverse drug events after hospitalization. Arch Intern Med 2006;166:565-571.
4. Krip Sunil, Roumie CL, Dalal AK, et al. Effect of a pharmacist on clinically important medication errors after hospital discharge. Anals Intern Med 2012;157(1):1-12.
5. Walker PC, Bernstein SJ, Tucker JN, et al. Impact of pharmacist-facilitated hospital discharge program. Acrh Intern Med 2009;23: 2003-2010.
6. Sarangarm P, London MS, Snowden SS, et al. Impact of pharmacist discharge mediation therapy counseling and disease state education: pharmacist assisting at routine medical discharge. American J Med Quality 2013;28(4):292-300.

Background

Table 1: Inpatient HCAHPS Dimension Composite FY2016 Communication About Meds				
Month	March	April	May	June
Medical	22%	9%	1%	11%

Table 1: Top Box HCAHPS scores for communication about medications for patients discharged from the medical floor prior to project implementation.

Objectives

Assess the feasibility of pharmacist-led, comprehensive medication reconciliation and education service for all eligible patients admitted to the medical floor at St. Peter's Hospital.

Determine project impact with regards to patient satisfaction with communication about medications using HCAHPS scores when pharmacists perform medication education throughout the patient's hospital stay.

Objectives

Monitor the number and type of medication discrepancies caught by pharmacists during admission and discharge medication reconciliation.

Track the number and type of pharmacist interventions made during medication reconciliation and medication education.

Design and Methodology

Design:

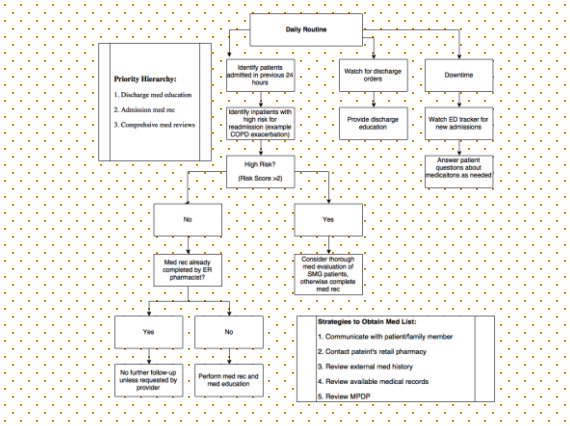
- Prospective observational study assessing impact of pharmacist-led medication reconciliation and discharge medication education on patient satisfaction scores pertaining to communication about medications.

Design and Methodology

- Inclusion Criteria:
  - Adult patients admitted to the medical floor at SPH and discharged to home between August 2016 and December 2016.
- Exclusion Criteria:
  - Pediatric patients
  - Pregnant females
  - Patients discharged to prison, long term care facilities, or group homes
  - Patients diagnosed with dementia *and* no documented care giver
  - Patients discharged to hospice care

Design and Methodology

- **Outcomes:**
  - Primary: Impact of medication education on patient satisfaction scores pertaining to communication about medications.
  - Secondary: Number of discrepancies caught per patient, number and type of interventions made per patient, and time required for services provided.



Results

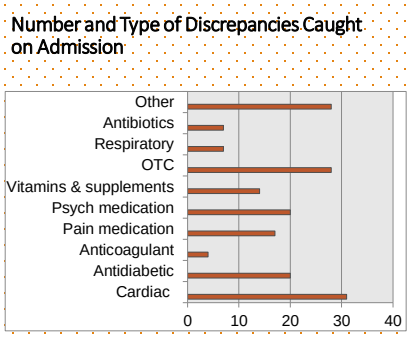
Table 2: Medical Floor Inpatient HCAHPS Communication About Medication					
Month	Baseline Average	September	October	November	December
Medical	24.8%	1%	46%	67%	1%

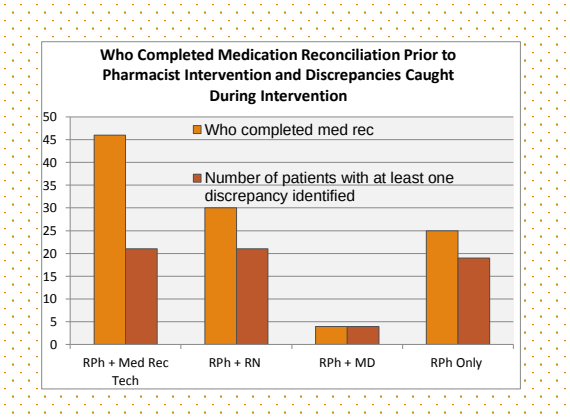
Table 2: Top Box HCAHPS scores for communication about medications (understood purpose of medication) for patients discharged from the medical floor prior to project implementation (Baseline Average), and during intervention phase.

Results

Table 3: Admission Medication Reconciliation Interventions			
Month	September	October	November
Admit Med Recs Completed	24	56	72
Average Time to Complete (Minutes)	27	25	22
Average # of Discrepancies Per Patient	1.42	1.82	1.19

Table 3: Summary of admission medication reconciliation interventions.





Results

Table 4: Table 3: Discharge Medication Education Interventions			
Month	September	October	November
Discharge Interventions Completed	15	46	56
Average Time Per Patient (Minutes)	20	27	25
Average Number of Interventions Per Patient	1.20	1.55	1.66

Table 4: Summary of discharge medication reconciliation and education interventions.

Type of Pharmacist Interventions Made at Discharge

- A total of 27 discrepancies were caught in 117 interventions (average of 0.23 discrepancies/patient).
  - Example of discrepancy caught by pharmacist during discharge medication reconciliation:
    - Patient admitted for pulmonary embolism. Anticoagulation started during admission, but not continued at discharge.
- Of the 117 medication reconciliation interventions completed, 115 received discharge medication counseling (2 patients declined).

Cost Avoidance through Admission Medication Reconciliation

Table 5: Cost Avoidance through Admission Medication Reconciliation Using AHRQ Table	
Average Number of discrepancies/patient found during TOC Pilot	1.5
Extrapolated annual number of medication reconciliations performed by SPH TOC Pharmacist	600
Potential medication errors per year that can be avoided by TOC Pharmacist	900 (600 x 1.5)
Percent medication errors that are potentially harmful to patient per AHRQ[7]	2.5%
Number of harmful medications errors avoided per year with SPH TOC Pharmacist	22.5
Annual gross savings ($4,800 per harmful error per AHRQ)[7]	$108,000

7. Gleason K, Brake H, Agramonte V, Perfetti C. Medications at transitions and clinical handoffs (MATCH) toolkit for medication reconciliation (2012). Agency for Healthcare Research and Quality web site. Available at: http://www.ahrq.gov/sites/default/files/publications/files/match.pdf. Accessed January 17, 2017.

Conclusions

Pharmacist involvement in medication reconciliation on admission and discharge appears to correlate with improvement in patient satisfaction scores pertaining to communication about medications.

Pharmacists consistently catch medication discrepancies during medication reconciliation that were missed by other health care professionals.

Future Directions

1.0 FTE for a transitions of care pharmacist was approved as a result of this project.

Expand pharmacist TOC service to include coverage seven days per week.

Expand medication education service to include targeted disease-state education.

- Goal: Prevent readmission of high risk groups including heart failure, pneumonia, and total hip and total knee replacements.

Develop TOC rotations as future resident and student learning experiences.

Questions?

Contact Information:

- Email: sfanning@stpetes.org
- Phone: 406-438-1797

References

1. Foster AJ, Clark HD, Menard A, et al . Adverse events among medical patients after discharge from hospital. CMAJ. 2004;170:345-349.

2. Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. The incidence and severity of adverse events affecting patients after discharge from the hospital. Ann Intern Med 2003;138:161-167.

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