Pharmacist's impact on the medication reconciliation process with a focus on consolidation of polypharmacy at the time of inpatient discharge

St. Peter's Health

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Background

With more than half of Americans taking two or more prescription medications, polypharmacy is a frequently-encountered safety issue that can put patients at a higher risk for experiencing negative clinical outcomes.[1,2] Potential sources of polypharmacy include inaccurate discharge medication lists following a hospital stay, either due to an inaccurate admission medication history or a discharge list that does not accurately reflect the provider's intentions, patients receiving prescriptions from multiple providers or pharmacies, and inadequate patient education regarding medications. To address these issues, facilities across the country have implemented transitions of care (TOC) programs to complete medication histories, medication counseling, and discharge education.

Objectives

- **Primary Objective:** Evaluate if TOC pharmacists are effective in reducing the number of unnecessary medications on discharge medication lists
- **Secondary Objectives:**
  - ◊ Percent of pharmacist recommendations accepted
  - ◊ Percent of medication histories completed within two hours of admission through the emergency department
  - ◊ Reduction in the number of medication errors reaching the patient due to inaccurate medication histories
  - ◊ Satisfaction of patients and staff with medication reconciliation process

Methods

- This project will be a quasi-experimental research design that includes a retrospective data collection period and a prospective intervention phase, which together will last approximately 5 months

Pre-Implementation Phase: November-December → **Implementation Phase: January-March**

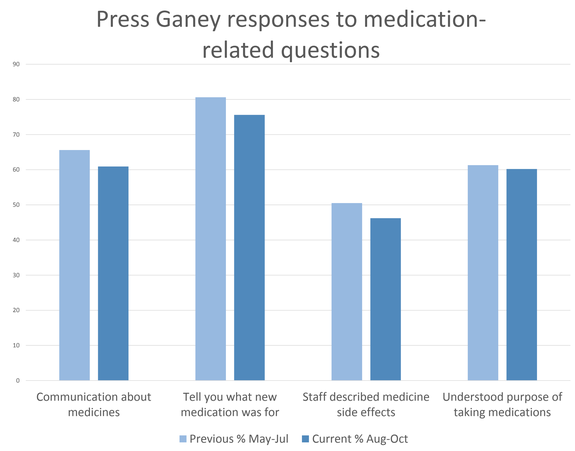
- **The pre-implementation phase** is expected to last from November to December and will include a retrospective review of baseline data. Baseline data to be collected includes:
  - ◊ Time from admission to medication history completion
  - ◊ Number of medication errors reaching the patient due to inaccurate medication histories
  - ◊ Staff satisfaction with the medication reconciliation process
  - ◊ HCAHPS scores prior to service implementation
- The pre-implementation phase will also include a pilot program which will help establish workflow, the most efficient ways to collect accurate data, feasibility of workload, and other important aspects of establishing a pharmacist-led TOC service
- **The implementation phase** will run January through March and will focus primarily on pharmacist interventions

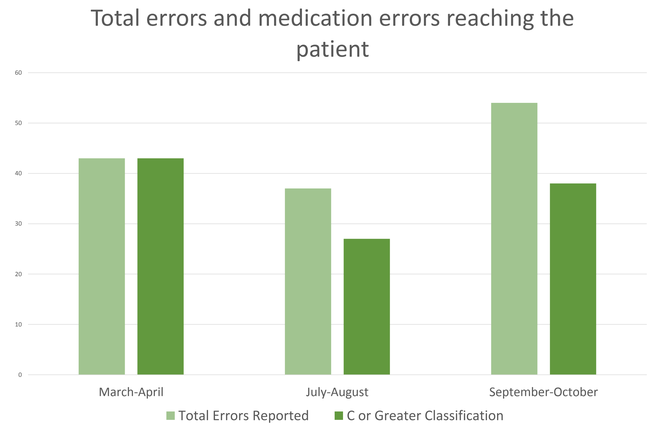
- Data will be collected through reports generated from Meditech (the electronic health record (EHR) used by St. Peter's Health), Midas (the error reporting system used at St. Peter's Health), and a supplementary spreadsheet updated by pharmacists
- **Inclusion Criteria:**
  - ◊ Patients admitted through the Emergency Department (ED) to the medical floor
  - ◊ Patients with a discharge medication review completed by a pharmacist
  - ◊ Patients over the age of 18
- **Exclusion Criteria:**
  - ◊ Patients who are taking two or fewer medications at the time of admission
  - ◊ Patients under the age of 18
- **Potential barriers to address:**
  - ◊ Establishing a consistent workflow between multiple TOC pharmacists
  - ◊ Communication between departments regarding medication history responsibilities, implementation dates, and process feedback
  - ◊ Provider approval of pharmacist involvement in de-escalation and discharge processes
  - ◊ Optimization of resources for maximum patient and organization benefit

Workflow

1. Patient is admitted through the Emergency Department (ED)
2. Comprehensive medication history is completed and documented in the EHR
3. Transitions of Care (TOC) pharmacist evaluates medication list and identifies therapy de-escalation opportunities
4. Recommendations discussed with the patient and provider
5. At discharge, TOC pharmacist will provide education on any changes made to the patient's medication regimen

Preliminary Results





Location in Hospital	Six-month average % of medication histories completed within 2 hours
Medical Floor East	67.94%
Medical Floor South	67.13%
Medical Floor Average	**67.5%**

Preliminary results are significant for:

- ◊ Press Ganey responses to medication-related questions at 75% or less and on a downward trend.
- ◊ Errors reaching the patient (Class C or greater classification) make up a significant portion of total errors
- ◊ Average medication history completion time over the last 6 months for medical floor is 67.5%

Evaluation

The implementation of this service has highlighted the need for a consistent medication reconciliation program to increase safety, efficiency, accuracy, and satisfaction from patients and staff. This is partially evidenced by the responses to the Press Ganey survey questions regarding medications, which show room for improvement, as well as a downward trend. Moving forward, the service will continue to encourage multi-disciplinary collaboration in order to optimize patient safety and satisfaction.

Discussion

Future Plans:

- ◊ Train and integrate pharmacy technicians into the medication history workflow
- ◊ Increase pharmacist involvement in the discharge process by incorporating discharge medication list compilation into workflow
- ◊ Identify patients who would benefit from follow-up with established pharmacist-driven outpatient services in the ambulatory care, rheumatology, or allergy clinics
- ◊ Expand medication history and reconciliation services to other areas of the hospital

Disclosures

Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter.

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