St. Peter's Hospital
Helena, Montana

Impact of a pilot ambulatory care pharmacist in a family practice clinic

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Background

Up to 60% of patients are non-adherent to their medication regimens.[1] Costs associated with medication non-adherence have been estimated at $177 billion annually.[2] About 30% of people 65 years and older have been prescribed five or more medications, and approximately 50% of these have one or more unnecessary or high risk medications.[3] Poly-pharmacy is a component of medication management that pharmacists can provide evidence-based assistance to improve medication use in the primary care setting.

Purpose

- Evaluate the impact of a pharmacist working collaboratively with the primary care team in a clinic setting
- Assess pharmacist impact in a family practice clinic on patient outcomes using quality metrics, extension of providers, and improvement in patient and provider satisfaction

Methods

- Prospective pilot study design
  - **Phase I**: Implementation of pharmacist embedded in a pod of a family practice clinic, working closely with providers, nurses, and office staff
    - Perform various tasks as outlined in **Table 1**

Table 1. Pharmacist's Tasks

▪ Reviewing and identifying patients at high risk for medication adverse effects or medication related problems	▪Assisting in a pneumonia vaccine outreach initiative
▪Medication reconciliations with multiple sources	▪Patient medication assistance
▪Extensive medication education	▪Drug information questions
▪Comprehensive medication management discussions	▪Fluid members of the patient care team providing additional tasks and assistance where requested

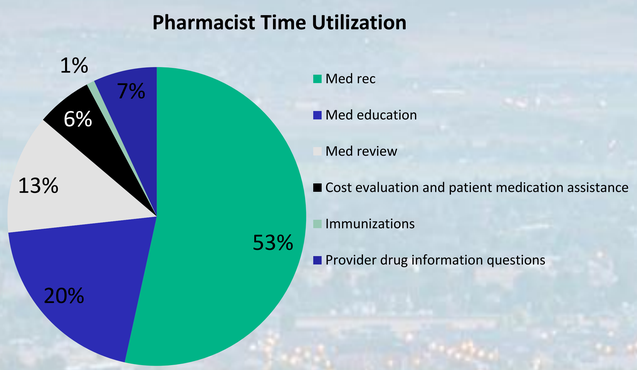
  - **Phase II**: Expansion of services
    - Based on utilization of pharmacist in phase I, and implementation of team-based care reimbursement

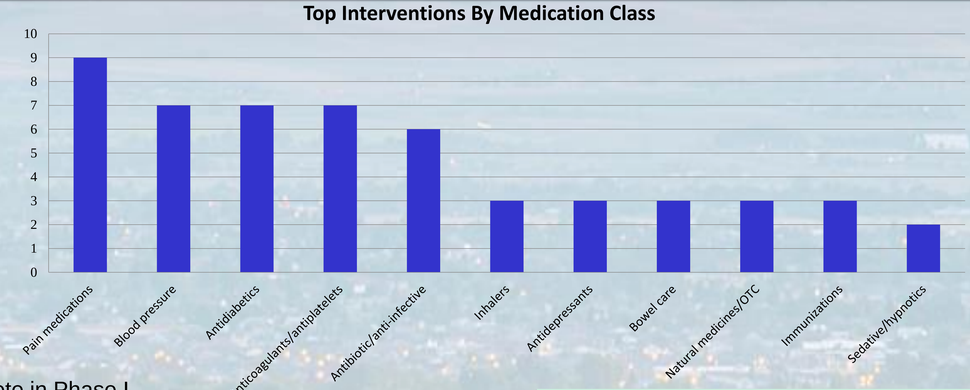
Phase I: Implementation of imbedded pharmacist → **Phase II:** Expansion of services

- Metrics assessed divided into three main categories
  1) **Safety and Quality Measures**
     - Based on set quality metrics set forth by:
       - National Committee for Quality Assurance (NCQA)
       - Clinical and Group Assessment of Healthcare Providers and Systems
       - (CG-CAHPS)
       - Electronic Clinical Quality Measure (eCQM)
  2) **Provider's Perspective**
     - Provider time saved and extension of services
  3) **Pharmacy Specific Safety and Quality metrics**
     - Time utilization
     - Interventions
     - Potential billing codes

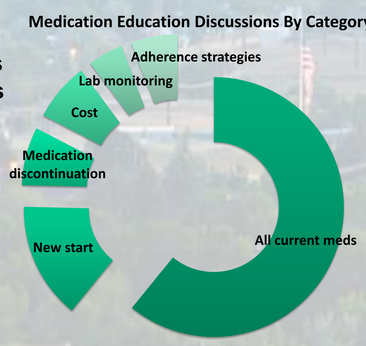
Preliminary Results

Phase I





- A total of 73 comprehensive medication reconciliations were complete in Phase I
  - A component of medication education was also provided during 83% of reconciliations
  - The average number of medications each patient was taking : **18 medications**
  - The average time it took to complete a medication reconciliation : **8.6 minutes**
  - 34% of patients were also accompanied by a family member or caregiver
- Majority of billing codes tracked in Phase I were incident-to-physician codes, with 99211 being the most frequently tracked code



Phase II

Provider groups are now beginning to recognize and offer incentives to organizations that provide a coordinated care that follows best practices, especially through the transitions of care continuum.[4] One specific model that promotes a team-based or integrated practice approach, CPC plus, will go into effect in 2017 at St. Peter's Medical Group Family Practice Clinic.

The following are expansion opportunities for Phase II:

- Evaluating high risk medications in patients ≥ 65 years old
- Collaborative practice agreements and protocols
- Asthma education program
- Expansion of comprehensive medication management for patients from hospital or emergency room discharge

Evaluation

Majority of the pharmacist's time during Phase I of the pilot study was spent completing comprehensive medication reconciliations and medication education. A component of medication education was also provided 83% of the time a medication reconciliation was complete. The top medication interventions were related to chronic disease state management. Specifically, medications relating to chronic pain management, hypertension, and anticoagulant and antiplatelet agents. These are all areas for future growth in Phase II through collaborative agreements.

Discussion

Phase I of the pilot ambulatory care pharmacist in a family practice clinic provided information on pharmacist time utilization, and allowed for reflection and growth for the pharmacist's role in Phase II of the pilot project.

- Majority of time spent in Phase I related to medication education for patients and healthcare providers in the primary care setting
- Chronic disease state management, with focus on safety and quality measures, will be a focus for Phase II

Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

Nothing to disclose: Taylor Sandvick, Jessica Pipinich, Thomas Richardson, Starla Blank, Amy Emmert

References

[1]National Council on Patient Information and Education. Enhancing prescription medicine adherence: a national action plan. Rockville (MD): National Council on Patient Information and Education; 2007 Aug.
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