# Optimizing Cardiac Care: Implementing an Outpatient Cardiologist Pharmacist to Enhance Patient Outcomes and Medication Management for Heart Failure Patients

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## Background

St. Peter's Health (SPH) cardiac care team is a comprehensive outpatient care team that consists of board certified cardiologists and mid-level practitioners. Disease states that are managed by the outpatient cardiology team include but are not limited to: coronary artery disease, hypertension, cardiac arrhythmias, and congestive heart failure. A large population of patients seen in the clinic are referred for follow up after a recent in-patient stay at SPH's main campus hospital. Unfortunately, with the current landscape of healthcare and prolonged wait times to see providers, many patients are lost to follow up, or cannot be seen quickly enough to make critical dose titrations and medication adjustments. Heart failure (HF) is a complex condition requiring careful medication management, including optimizing dosages, monitoring for side effects, and ensuring adherence to treatment regimens. Prior research has identified that integrating clinical pharmacists in cardiology practices can significantly improve patient outcomes, including reducing hospital readmission and enhancing medication adherence.[1-8] Introducing a specialized pharmacist role in the outpatient cardiology clinic may significantly enhance medication management and create valuable opportunities to improve patient care.

With heart failure patients, there is an expansive opportunity for a clinical pharmacist to be involved with optimizing medication management to improve patient outcomes. There is interest from the cardiology department to establish a pharmacist role in the SPH outpatient cardiology clinic. This service development project will evaluate the impact of a clinical pharmacist on patient education and medication optimization in the outpatient cardiology setting. Ideally, this service development project will assist in fostering interdisciplinary collaboration to ensure comprehensive, evidence-based care and improve patient outcomes.

## Objectives

**Primary Objective:** Assess the effectiveness of pharmacist services targeting improved HF management through medication titration, and patient education in the outpatient cardiology setting.

**Secondary Objectives:**

1. Track pharmacist managed interventions
2. Assess rate of patients receiving max tolerated guideline-directed medical therapy (GDMT)
3. Assess time savings provided to cardiologists and mid-level practitioners
4. Assess time to available follow up from hospital discharge
5. Track changes in hospitalization rates for HF exacerbations or related complications
6. Track pharmacist time spent and impact of medication safety interventions

## Methods

**Phase 1:** Project Development — August–December

**Phase 2:** Project Implementation — January - March

**Phase 3:** Data Analysis — April - May

### Phase 1: Project Development

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| Background Research and key stakeholder identification | • Prior research has identified that integrating clinical pharmacists in cardiology practices can significantly improve patient outcomes, including reducing hospital readmission and enhancing medication adherence.[1-8]<br>• There is interest in establishing a pharmacist role in the SPH outpatient cardiology clinic |
| Identify opportunities for involvement | • A pre-implementation survey will go out to current staff members to identify how adding a pharmacy position would best improve their practice<br>• This survey will include an assessment of current estimated time spent on patient care within the clinic |
| Draft the Collaborative Practice agreement | • A collaborative agreement that outlines the expected practices of the pharmacist increases continuity and potential for pharmacist impact<br>• Included expected pharmacy practices and outlines the preferred guidelines to be followed |

### Phase 2: Project Implementation

8-week Pilot Phase → Implement pharmacist roles targeting identified areas of impact → Prospective data collection

### Phase 3: Data Analysis

| Analyze & Interpret | Evaluate | Recommend |
|---|---|---|
| • Patterns and trends of recorded data | • The effectiveness of this new pharmacist role | • Evaluate justifications for a long term pharmacist role |

## Proposed Pharmacist Responsibilities

Optimize Cardiac Care

- Conducting medication reviews
- Patient education on proper medication use and management of heart failure
- Patient visits with pharmacists by appointment for patient follow-up and medication related issues
- Monitoring and adjusting therapy based on clinical guidelines and patient response via collaborative practice agreement
- Answering patient questions through the patient portal

## Discussion

The cardiology pharmacist position is currently being established and is set to begin in January of 2025. This prospective service development project will involve working collaboratively with inpatient and outpatient cardiologists as well as mid-level practitioners and other staff members to identify the greatest opportunity for pharmacist contribution. Initial efforts will be aimed at identifying baseline characteristics including efficiency of medication titration and barriers to achieving guideline driven medication therapy. Patients who are referred to or seen in the cardiology clinic will be evaluated for possible pharmacy related interventions. The pharmacist will collect supporting data to demonstrate improvements in medication management, provider time savings, and patient education. Data collection will utilize excel spreadsheets to track clinical interventions. The primary outcome of this study is to assess the effectiveness of pharmacist services targeting improved patient outcomes through medication titration, and patient education in the outpatient cardiology setting. Secondary outcomes will include assessing rate of max tolerated guideline driven medication therapy titration, identifying total time savings to cardiologists and mid-level practitioners, identifying the total number of medication related interventions made, assessing the rate of high-cost prescriptions filled at the associated pharmacy, and assessing the time to follow up from hospital discharge with a heart failure diagnosis in the outpatient clinic.

## References and 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.
Jordan Hardrick: Nothing to Disclose, Kaitlyn Deaton: Nothing to Disclose, Julie Petre: Nothing to Disclose, Pamela Melton: Nothing to Disclose