Pharmacist Impact on Cardiology Bundle Payments for Care Improvement and Patient Outcomes

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**BACKGROUND**

- The Medicare Bundle Payments for Care Improvement (BPCI) Initiative was created to better the transitions of care process, incentivize hospitals to reduce readmission rates, and improve overall care in hospitals.
- As this payment structure has incorporated additional diagnoses, it has become a popular focus of research into interprofessional and pharmacy-based interventions to reduce readmission rates.
- Data shows that pharmacist-led interventions during transitions of care can significantly contribute to decreased readmission rates.
- This study examines the review process of the ambulatory-based cardiology pharmacists at Parkview Health in evaluating cardiology BPCI patients. Current workflow is shown in Figure 1.

**OBJECTIVES**

- The study aims to evaluate the current pharmacist recommendation trends, to explore the impact of the Parkview Health cardiology pharmacists on patient medication regimens and readmission events, and to identify patient populations most in need of pharmacist review.

**METHODS**

- This study is an IRB approved retrospective chart review.
- Inclusion Criteria: All patients qualifying for a Cardiology BPCI with Parkview Regional Medical Center and Parkview Randallia Hospital between July 1, 2020 and June 1, 2021.
- Cardiology associated bundles included heart failure (HF), acute myocardial infarction (AMI), and arrhythmia diagnoses.
- Exclusion Criteria: Patients with a subsequent readmission with a qualifying bundle diagnosis were only evaluated by the first qualifying admission within the study period.

**RESULTS**

- During the study period, 283 of 318 qualifying patients (89%) were reviewed by a clinical pharmacist.
- 145 of 165 HF bundle patients
- 25 of 30 AMI bundle patients
- 115 of 123 arrhythmia bundle patients
- One patient was excluded due to documentation errors in the pharmacy review.
- Rates of GDMT use are summarized in Table 1.

**DISCUSSION & CONCLUSIONS**

- Pharmacists made a recommendation for roughly 1 in 4 patients in each of the three cardiology BPCI groups.
- Due to the small number of non-reviewed patients, the results comparing reviewed (n=283) to non-reviewed patients (n=35) may have limited generalizability.
- Non-reviewed patients may have a selection bias towards less critical patients and may also have included a higher number of patients who had been reviewed prior to the study period.
- Readmission events and ED visits within 90 days were highest amongst HF bundle patients. This may be a BPCI population to focus on with future interventions.
- Pharmacy review provided multiple types of clinical interventions, but implementation of these recommendations could be improved.
- Placing notes in the patient’s chart in addition to direct messaging of providers may increase implementation of recommendations, especially when patients change providers.
- Further studies incorporating a matched control group may be warranted to evaluate the impact of post-discharge medication review on patient readmission rates and GDMT use.

**REFERENCES**


**Disclosure**

All authors of this presentation have nothing to disclose concerning personal financial or professional relationships with commerical entities that may have a direct or indirect interest in the subject matter of this presentation.

**Tables and Figures**

- Table 1: Rates of GDMT Use at Discharge and 30- and 90-Day Post-Discharge
- Figure 1: Current Pharmacist Workflow
- Figure 2: Recommendations by Type (n=75)
- Figure 3: Recommendations by Service (n=75)
- Figure 4: Implemented Recommendations (n=75)
- Figure 5: Number of Recommendations per Person by Bundle Type
- Figure 6: Readmission and ED Visit Event Rates by Bundle Type
- Figure 7: Follow-up.