

## **Background**

Hospital readmissions represent a significant burden on the healthcare system, especially for high-risk patients with various long-term health conditions. The purpose of this study was to evaluate the impact of a transition of care (TOC) pharmacy service on the pharmaceutical care and 30-day hospital readmission rates of patients with acute myocardial infarction (AMI) or chronic obstructive pulmonary disease (COPD).

## **Methods**

This was a single center, retrospective chart review that included patients 65 years of age and older discharged from the hospital with COPD or AMI between January 1, 2018 and December 31, 2020. The primary outcome compared 30-day hospital readmission rates before and after TOC pharmacy service implementation and included only patients with a final primary diagnosis of COPD or AMI. Secondary outcomes assessed the amount and type of interventions made by the TOC pharmacy service in the total post-intervention cohort, regardless of final primary diagnosis.

## **Results**

In total, 258 of the 626 patients in the post-intervention cohort had a final diagnosis of COPD or AMI and were included in the analysis for the primary outcome. 113 of 641 (17.6%) of patients readmitted to the hospital within 30 days after discharge in the pre-intervention cohort compared with 46 of 258 (17.8%) patients in the post-intervention cohort [ $p=0.94$ ]. Regarding secondary outcomes, medication histories were completed by the TOC service for 334 of 626 patients (53.3%). Discharge medication lists were reviewed for 517 of 626 patients (82.6%), with 66.1% of those reviewed requiring at least one medication intervention. In total, 1,011 medication interventions were made by the TOC service, with the most common being medication modifications, followed by medication additions, and medication discontinuations.

## **Conclusion**

This retrospective study was unable to identify a significant difference in 30-day readmission rates in COPD and AMI patients before and after TOC pharmacy service implementation.