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Title: *Readmission Rates and Medication Selection for Patients with Heart Failure Preserved Ejection Fraction: A Retrospective Single Center Study*

Purpose

Heart failure with preserved ejection fraction (HFpEF) has significantly less guideline driven treatment options compared to heart failure with reduced ejection fraction (HFrEF). This stems from a lack of trials demonstrating medications with improved clinical outcomes for this patient population. The primary objective of this study is to determine which medications and dosages are related to high readmission rates for HFpEF patients.

Methods

A retrospective, single center, chart review was performed on patients with HFpEF at an academic medical center. The study was approved by the institutional review board (IRB). Heart failure patients between the ages of 18-89 with an ejection fraction $\geq 45\%$ reported on an ECHO were included in the study. Primary outcomes include 30-day all cause readmission rates. Other primary outcomes include prescribing patterns of heart failure medications at discharge and medication use that could be potentially harmful in patients with heart failure. Secondary outcomes include patient safety by comparison of readmission rates. Descriptive statistics were used to analyze the data.

Results

A total of 455 unique patient admissions were reviewed and analyzed. Patients who were not readmitted to the hospital within 30 days were more likely to be on furosemide than those who were readmitted within 30 days (54% vs 42%; $p = 0.019$). Conversely, patients who were readmitted were more likely to be taking bumetanide (4% vs 1%; $p = 0.039$). In regards to the investigated medications that should be avoided or used with caution in heart failure patients, meloxicam was the only medication that was correlated to patient readmissions ($p = 0.002$).

Conclusion

There were five identified potential risk factors for 30-day readmissions for patients with HFpEF which include HOSPITAL score, patients on bumetanide or meloxicam on admission, admitted on rosuvastatin, high and platelet counts.