

Evaluating Prescribing Trends of Guideline Directed Medical Therapy for HFrEF in Southern Illinois: A Retrospective Study

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Heart failure with reduced ejection fraction (HFrEF) is a leading cause of morbidity and mortality in the United States, yet adherence to guideline-directed medical therapy (GDMT) remains suboptimal. This study evaluates GDMT utilization for HFrEF in Southern Illinois, identifying potential disparities and areas for improvement.

This was a retrospective cohort study in which all patients in a large federally qualified healthcare system with ICD-10 diagnosis codes inclusive of heart failure were included in the electronic health record query (I50.1, I50.2, I50.4, and III.0) from June 2022 to September 2024. Along with demographics, all prescription records were pulled with individual drugs categorized as angiotensin-converting enzyme (ACE) inhibitor, angiotensin II receptor blocker, mineralocorticoid receptor antagonist, evidence-based beta-blocker (bisoprolol, carvedilol, and metoprolol succinate), or ARNi. The primary outcome is the frequency of patients with concurrent GDMT based on the 2022 guideline. Secondary outcomes will include frequency of absent GDMT drug class and predictive factors for receipt of optimal guideline directed pharmacotherapy. All descriptive and statistical analysis will be performed with SPSS 29.0 (IBM, Chicago, IL).

The primary outcome found that only 11.4% of patients received full GDMT, with 16.3% prescribed ARNIs and 40% prescribed SGLT2 inhibitors. The secondary outcome found that African American patients were significantly less likely to receive full GDMT (OR: 0.565, $p < 0.001$), highlighting racial disparities in prescribing patterns.

To conclude, despite the strong evidence supporting GDMT for HFrEF, this study highlights significant gaps in adherence, emphasizing the need for targeted interventions to address racial disparities and improve prescribing practices.