

ED Admissions for Heart Failure with Atrial Fibrillation

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Background: Heart failure (HF) and atrial fibrillation (AF) have common risk factors that include age, hypertension, diabetes, structural and electrophysiological heart disease. The objective of the study was to understand outcomes, and emergency department (ED) and inpatient hospital utilization among patients with HF and AF compared with HF alone

Method: We analyzed data from the Nationwide Emergency Department Sample for ED visits and hospitalizations for HF in 2019, stratified by presence of AF. We determined admission rate, hospital length of stay (LOS), and ED charges as a marker for resource utilization.

Results: A total of 1,060,394 patients were seen in ED for HF, the HF visit rate was 3.9%. Overall, HF ED mortality rate was 0.3%, and Inpatient mortality rate was 1.5%. A total of 293,129 (27.7 %) of the HF visits had a co-diagnosis of Atrial fibrillation. Mean lengths of stay was 5.1 days for HF visits alone and 5.2 days for HF/Atrial fibrillation visits. For patients with HF and AF, the average hospital cost was \$57,088, and \$61,486 for patients treated for HF alone (P < 0.01). For patients with HF and AF who underwent Left Atrial appendage occlusive procedure (LAAO), the average hospital cost was \$388,859.

Conclusion: Patients with Heart failure and Atrial fibrillation, have significant ED and hospital resource utilization. These patients are frequently very sick and require greater level of care. Patients admitted for HF with AF had significantly lower hospital costs than patients admitted for HF alone, except for patients who underwent LAAO procedure.