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Summary

ATRIAL FLUTTER-RELATED HEALTHCARE USE AND COSTS: AN ANALYSIS OF A NATIONALLY REPRESENTATIVE ADMINISTRATIVE CLAIMS DATABASE IN THE UNITED STATES

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STUDY OBJECTIVE

The objective of this study was to evaluate the healthcare utilization and cost burden for newly diagnosed Atrial Flutter (AFL) patients in the United States (US).

METHODOLOGY

Database: 2017–2020 Optum Clinformatics database

Source: A nationally-representative claims database including commercially insured & Medicare Advantage patients throughout the US.

Population: Patients with an incident diagnosis of AFL were identified (n=13,270). To examine the incremental burden of AFL, a comparator cohort of non-AFL patients (n=13,683) were also identified.

Analysis: Using a matching weights method, the two study cohorts (AFL and non-AFL) were matched on demographic and comorbid characteristics including Elixhauser comorbidity and CHA_2DS_2-VASc scores. Logistic regression models were used to assess services and general linear models were used to determine cost difference among the matched study cohorts.

Outcomes: 12-month all-cause and cardiovascular (CV)-related healthcare utilization (inpatient, outpatient, emergency room [ER], and other visits) were assessed and compared among the matched cohort of AFL and non-AFL patients. Total healthcare costs (including medical services use and prescriptions) were also compared among the two cohorts.

RESULTS

Patients with incident AFL had significantly higher 12-month healthcare utilization in comparison to patients without AFL:

2.3X
INCREASED RISK OF ALL-CAUSE INPATIENT VISITS
(RR 2.26; 95% CI: 2.19-2.33; p<0.001)

↑14%
HIGHER RISK OF ALL-CAUSE ER VISITS
(RR 1.14; 95% CI: 1.11–1.18; p<0.001)

3.3X
INCREASED RISK OF CV-RELATED INPATIENT VISITS
(RR 3.27; 95% CI: 3.15-3.39; p<0.001)

↑60%
HIGHER RISK OF CV-RELATED ER VISITS
(RR 1.60; 95% CI: 1.52–1.70; p<0.001)

Significantly higher healthcare use of medical services among AFL patients resulted in a higher mean total healthcare cost compared to those without AFL.

$71,201
AFL PATIENT PER YEAR

vs

$49,418
NON-AFL PATIENT PER YEAR

↑$21,783
HIGHER COST FOR AN AFL PATIENT PER YEAR

KEY TAKEAWAYS

- Significantly **higher 12-month all-cause and CV-related medical visits were seen among patients with AFL** compared to patients without AFL.
- **Total healthcare costs were $21,783 higher among AFL patients** versus non-AFL patients, reflecting the considerable cost burden of this common arrhythmia.
- Timely treatment and intervention for AFL patients is critical in addressing the clinical and financial burden caused by AFL.

LIMITATIONS

- Indirect medical or non-medical costs associated with AFL were not assessed, so the incremental costs may underestimate the true economic burden associated with AFL.
- The Optum database represents US commercial claims patients and Medicare Advantage patients; therefore, study results may not be generalizable to all elderly and non-commercial pay patients.
- To mitigate the potential for false-positive diagnosis, inclusion criteria included only patients with at least 2 AFL diagnoses within a 3-month window. This approach may result in a cohort which consists of patients with higher frequency of healthcare utilization. When re-running the analysis with only one AFL diagnosis the results were consistent with those from the main analysis. A sub-analysis where patients with AFL with concomitant diagnosis of AFib were excluded led to similar results.

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