

Summary

Very early versus early referral for ablation among young patients for newly diagnosed paroxysmal atrial fibrillation

Robert N. D'Angelo, Rahul Khanna, Charlene Wong, Robert W. Yeh, Laura Goldstein, Stephen Marcello, Patricia Tung, Andre D'Avila, Peter J. Zimetbaum

Pacing and Clinical Electrophysiology (2022). PMID: 35150152. DOI: [10.1111/pace.14459](https://doi.org/10.1111/pace.14459)

RATIONALE

First study to evaluate effects of referral for catheter ablation (CA) within the first 6 months from diagnosis on key outcomes measures in a younger real-world population.

STUDY QUESTION

How do clinical outcomes differ between AF patients undergoing CA within 6 months (“Very early ablation” cohort), 6 to 12 months (“Early” cohort) or 12 to 24 months (“Late” cohort) after their diagnosis?

METHODOLOGY

DATA SOURCE: IBM MarketScan®
Commercial Database



A nationally-representative database for individuals in US, capturing medical information with employer-sponsored private health insurance

Design: Retrospective, observational cohort study

Population: AF patients between the ages of 18-64 who underwent CA between January 2011 to June 2019

Analysis: Risk difference in outcomes compared between propensity score matched patient cohorts

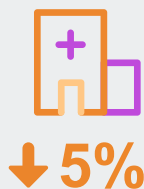
OUTCOME

Primary outcome: Composite of healthcare utilization over the following 24 months

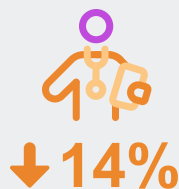
- A composite of AF-related hospitalizations, heart failure-related hospitalizations, AF related ER visits, AF-related outpatient encounters, AF-related office visits, electrical cardioversion, repeat CA, and AAD use

RESULTS

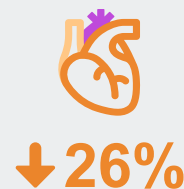
- Compared to the “early ablation” cohort, the “very early” CA patients had lower healthcare utilization in the following 24 months, based on relative risks (*P* values and absolute risk difference):



COMPOSITE OUTCOME
(*P*=.0002, ARD*=3.9%)



AF-RELATED OUTPATIENT VISITS
(*P*=.001, ARD*=6.6%)



POST-ABLATION CARDIOVERSIONS
(*P*=.012, ARD*=2.9%)

- No differences in composite outcome were observed between “early” vs “late” patient cohorts

* ARD, Absolute Risk Difference

KEY TAKEAWAYS



- Patients who underwent **very early ablation (<6 months)** had **significantly lower healthcare utilization** compared to patients with early (6-12M) or late (12-24) ablation over the ensuing 24 months, with differences driven by fewer outpatient visits and cardioversions.
- These findings support **expeditious referral for ablation** for symptomatic AF.

ADDITIONAL ARTICLES EXAMINING EARLY TREATMENT FOR AF

- Kuck KH, Lebedev DS, Mikhavlov EN, et al. [Catheter ablation or medical therapy to delay progression of atrial fibrillation: the randomized controlled atrial fibrillation progression trial \(ATTEST\)](#). *Europace*. Published March 8, 2021; 23(3): 362-369.
- Kirchhof P, Camm AJ, Goette A, et al. [Early Rhythm-Control Therapy in Patients with Atrial Fibrillation](#). *N Engl J Med*. Published October 1, 2020; 383(14): 1305-1316.
- Rilling A, Magnussen C, Ozga AK, et al. [Early Rhythm Control Therapy in Patients With Atrial Fibrillation and Heart Failure](#). *Circulation*. Published July 30, 2021; 144: 845-858.

AAD, anti-arrhythmic drug; AF, atrial fibrillation; ARD, Absolute risk difference; CA, catheter ablation; ER, emergency room; HF, heart failure; RR, relative risk.

Scan the QR code for additional clinical evidence resources

