

EFFECTIVE DATE: 01|01|2026

POLICY LAST REVIEWED: 09|17|2025

OVERVIEW

Atrial fibrillation frequently arises from an abnormal focus at or near the junction of the pulmonary veins and the left atrium, thus leading to the feasibility of more focused ablation techniques directed at these structures. Catheter-based ablation, using radiofrequency ablation or cryoablation, is a treatment option for various types of AF. Pulsed field ablation is a novel ablation technique for atrial fibrillation.

MEDICAL CRITERIA

Medicare Advantage Plans and Commercial Products

Transcatheter radiofrequency ablation (RFA), cryoablation or pulsed field ablation to treat atrial fibrillation maybe considered medically necessary as a treatment for either of the following indications, which have failed to respond to adequate trials of antiarrhythmic medications (see definition below for antiarrhythmic drug (AAD) failure):

- Symptomatic paroxysmal or symptomatic persistent atrial fibrillation; or
- As an alternative to atrioventricular nodal ablation and pacemaker insertion in individuals with class II or III congestive heart failure and symptomatic atrial fibrillation.

Antiarrhythmic drug failure can be defined as the inability of an AAD to adequately control arrhythmia symptoms or prevent recurrence, despite appropriate dosing and adherence. It can also include intolerable side effects or proarrhythmic complications that necessitate discontinuation.

Transcatheter RFA, cryoablation or pulsed field ablation to treat atrial fibrillation may be considered medically necessary as an initial treatment for individuals with recurrent symptomatic paroxysmal atrial fibrillation (2 or more episodes within the previous 6 months) in whom a rhythm-control strategy is desired.

Repeat RFA, cryoablation or pulsed field ablation may be considered medically necessary in individuals with recurrence of atrial fibrillation and/or development of atrial flutter following the initial procedure.

PRIOR AUTHORIZATION

Medicare Advantage Plans and Commercial Products

Prior authorization is required for Medicare Advantage Plans and recommended for Commercial Products for catheter ablation via the online tool for participating providers. See the Related Policies section.

POLICY STATEMENT

Medicare Advantage Plans and Commercial Products

Catheter ablation as a treatment for atrial fibrillation may be considered medically necessary when the medical criteria above are met.

Medicare Advantage Plans

Catheter ablation is not covered in all other scenarios, as there is insufficient evidence to determine that the effects of the technology results in an improvement in the net health outcome.

Commercial Products

Catheter ablation is not medically necessary in all other scenarios, as there is insufficient evidence to determine that the effects of the technology results in an improvement in the net health outcome.

COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable surgery and not medically necessary/not covered benefits/coverage.

BACKGROUND

Atrial Fibrillation

Atrial fibrillation (AF) is the most common cardiac arrhythmia, with an estimated prevalence of 0.4% of the population, increasing with age. The underlying mechanism of AF involves the interplay between electrical triggering events and the myocardial substrate that permits propagation and maintenance of the aberrant electrical circuit. The most common focal trigger of AF appears to be located within the cardiac muscle that extends into the pulmonary veins.

Atrial fibrillation can be subdivided into 3 types: paroxysmal, persistent, and permanent. Atrial fibrillation accounts for approximately one-third of hospitalizations for cardiac rhythm disturbances. Symptoms of AF (eg, palpitations, decreased exercise tolerance, dyspnea) are primarily related to poorly controlled or irregular heart rate. The loss of atrioventricular synchrony results in a decreased cardiac output, which can be significant in patients with compromised cardiac function. Also, patients with AF are at higher risk for stroke, with anticoagulation typically recommended. Atrial fibrillation is also associated with other cardiac conditions, such as valvular heart disease, heart failure, hypertension, and diabetes. Although episodes of AF can be converted to normal sinus rhythm using pharmacologic or electroshock conversion, the natural history of AF is that of recurrence, thought to be related to fibrillation-induced anatomic and electrical remodeling of the atria.

Treatment strategies can be broadly subdivided into rate control, in which only the ventricular rate is controlled, and the atria are allowed to fibrillate, or rhythm control, in which there is an attempt to re-establish and maintain normal sinus rhythm. Rhythm control has long been considered an important treatment goal for the management of AF, although its primacy has recently been challenged by the results of several randomized trials reporting that pharmacologically maintained rhythm control offered no improvement in mortality or cardiovascular morbidity compared with rate control.

However, rhythm control is not curative. A variety of ablative procedures have been investigated as potentially curative approaches, or as modifiers of the arrhythmia so that drug therapy becomes more effective. Ablative approaches focus on the interruption of the electrical pathways that contribute to AF through modifying the arrhythmia triggers and/or the myocardial substrate that maintains the aberrant rhythm. The maze procedure, an open surgical procedure often combined with other cardiac surgeries (eg, valve repair), is an ablative treatment that involves sequential atriotomy incisions designed to create electrical barriers that prevent the maintenance of AF. Because of the highly invasive nature of this procedure, it is currently mainly reserved for patients undergoing open-heart surgery for other reasons (eg, valve repair, coronary artery bypass grafting).

Catheter Ablation for Atrial Fibrillation

Radiofrequency ablation (RFA) using a percutaneous catheter-based approach is widely used to treat a variety of supraventricular arrhythmias, in which intracardiac mapping identifies a discrete arrhythmogenic focus that is the target of ablation (see evidence review 2.02.01). The situation is more complex for AF because there may be no single arrhythmogenic focus. Atrial fibrillation most frequently arises from an abnormal focus at or near the junction of the pulmonary veins and the left atrium, thus leading to the feasibility of more focused, percutaneous ablation techniques. Strategies that have emerged for focal ablation within the pulmonary veins originally involved segmental ostial ablation guided by pulmonary vein potential (electrical approach) but currently more typically involve circumferential pulmonary vein ablation (anatomic approach).

Circumferential pulmonary vein ablation using radiofrequency energy is the most common approach at present.

Research into specific ablation and pulmonary vein isolation techniques is ongoing.

The use of current radiofrequency catheters for AF has a steep learning curve because they require extensive guiding to multiple ablation points. The procedure can also be done using cryoablation technology. One of the potential advantages of cryoablation is that cryoablation catheters have a circular or shaped endpoint, permitting a "one-shot" ablation.

Pulsed field ablation (PFA) employs a series of brief electrical pulses to desiccate tissue without significantly heating the tissue and is believed to be more selective for myocardial tissue than other ablative techniques. Two PFA devices were recently approved in the US.

Repeat Procedures

Repeat procedures following initial RFA are commonly performed if AF recurs or if atrial flutter develops post-procedure. The need for repeat procedures may, in part, depend on the clinical characteristics of the patient (eg, age, persistent vs paroxysmal AF, atrial dilatation), and the type of ablation initially performed. Repeat procedures are generally more limited in scope than the initial procedure. Additional clinical factors associated with the need for a second procedure include the length of AF, permanent AF, left atrial size, and left ventricular ejection fraction.

Regulatory Status

In February 2009, the NaviStar® ThermoCool® Irrigated Deflectable Diagnostic/Ablation Catheter and EZSteer® ThermoCool NAV Catheter (Biosense Webster) received expanded approval by the U.S. Food and Drug Administration (FDA) through the premarket approval process for RFA to treat drug-refractory recurrent symptomatic paroxysmal AF.

Devices using laser or cryoablation techniques for substrate ablation have been approved by the FDA through the premarket approval process for AF (FDA product code: OAE). They include:

- Arctic Front™ Cardiac CryoAblation Catheter and CryoConsole (Medtronic) in 2010.
- TactiCath™ Quartz Catheter and TactiSysQuartz® Equipment (St. Jude Medical) in 2014.
- HeartLight® Endoscopic Ablation System (Cardiofocus) in 2016.
- The Freezor™ Xtra Catheter (Medtronic) in 2016.

Pulsed field ablation (non-thermal energy) devices have also been approved by the FDA for catheter ablation of atrial fibrillation. FARAPULSE™ (Boston Scientific) is approved for paroxysmal AF in drug-resistant patients. PulseSelect™ (Medtronic) is approved for both paroxysmal and persistent AF. Sphere-9™ Catheter and Affera™ Ablation System (Medtronic) is capable of delivering either radiofrequency energy or pulsed field energy is approved for drug refractory, recurrent, symptomatic persistent atrial fibrillation (episode duration less than 1 year).

Also, numerous catheter ablation systems have been approved by the FDA for other ablation therapy for arrhythmias such as supraventricular tachycardia, atrial flutter, and ventricular tachycardia.

CODING

The following code may be considered medically necessary for Medicare Advantage Plans and Commercial Products when the medical criteria above are met:

93656 Comprehensive electrophysiologic evaluation with transseptal catheterizations, insertion and repositioning of multiple electrode catheters, induction or attempted induction of an arrhythmia including left or right atrial pacing/recording, and intracardiac catheter ablation of atrial fibrillation by pulmonary vein isolation, including intracardiac electrophysiologic 3-dimensional mapping, intracardiac echocardiography with imaging supervision and interpretation, right ventricular pacing/recording, and His bundle recording, when performed

RELATED POLICIES

Prior Authorization via Web-Based Tool for Procedures

PUBLISHED

Provider Update, November 2025

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