



Cohere Medicare Advantage Policy – Cardiac Ablation

Clinical Policy for Medical Necessity Review

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Important Notices

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Policy Information:

Specialty Area: Cardiovascular Disease

Policy Name: Cohere Medicare Advantage Policy - Cardiac Ablation

Type: ☒ Adult (18+ yo) | ☒ Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Cardiac Ablation

Related CMS Documents

Please refer to the [CMS Medicare Coverage Database](#) for the most current applicable CMS National Coverage.

- There are no applicable NCDs and/or LCDs for cardiac ablation.

Description

Catheter ablation is a cardiac rhythm control approach used to treat atrial fibrillation, atrial flutter, supraventricular tachycardia (SVT), and ventricular arrhythmias.¹ Cardiac ablation involves transcatheter access to cardiac tissue where inappropriate electrical activity originates (i.e., pulmonary veins, coronary sinuses, posterior wall, etc.) and administration of cryothermal energy, electricity, radiofrequency, or pulsed field energy to ablate the surrounding area. This effectively isolates the problematic site and prevents the inappropriate impulse (which causes arrhythmias) from traveling. An AV nodal ablation involves destroying the atrioventricular node to prevent irregular atrial signals from reaching the ventricles. It is a palliative treatment for persistent, symptomatic atrial fibrillation that may be causing tachyarrhythmia-induced heart failure.^{2,3}

Medical Necessity Criteria

Indications

Cardiac ablation is considered appropriate if **ANY** of the following is **TRUE**:

- The procedure is for symptomatic left atrial fibrillation (AF) and **ANY** of the following^{2,4,5}:
 - Antiarrhythmic drugs have been ineffective, contraindicated, or not tolerated, and continued rhythm control is desired^{1,5,6}; **OR**
 - Repeat ablation of the left atrium after recurrent symptomatic atrial fibrillation, which reoccurs beyond the blanking period (at least 3

- months after the initial ablation), when antiarrhythmic drugs have been ineffective, contraindicated, or not tolerated, and continued rhythm control is desired⁵; **OR**
- Heart failure with reduced ejection fraction (HFrEF) on guideline-directed medical therapy (GDMT); **OR**
 - Heart failure with preserved ejection fraction (HFpEF); **OR**
 - The procedure is for atrioventricular node ablation, and **ALL** of the following are **TRUE**^{2,3,5,7}:
 - **ANY** of the following:
 - Persistent or permanent atrial fibrillation; **OR**
 - Known or suspected tachycardia-induced cardiomyopathy^{6,8}; **AND**
 - Pharmacologic rate control has been unsuccessful due to rhythm refractoriness or patient intolerance⁸; **AND**
 - The patient has a permanent pacemaker implanted or is an appropriate candidate for ventricular pacing with plans to implant a pacemaker prior to (or on the same day as) ablation^{5,6}; **OR**
 - The procedure is for atrial flutter (AFL) and **ANY** of the following is **TRUE**²⁻⁴:
 - Symptomatic atrial flutter that has become refractory or intolerant to treatment with a Class I or III antiarrhythmic medication⁸; **OR**
 - Atrial flutter that is favorable for ablation as a first-line therapy (vs antiarrhythmic medication)⁸; **OR**
 - Recurrent episodes of symptomatic atrial flutter⁶; **OR**
 - Recurrent atrial flutter with a reasonable expectation of success with a redo procedure⁸; **OR**
 - The procedure is an electrophysiology study (EPS)/cardiac ablation for supraventricular tachycardia (SVT), and **ANY** of the following is **TRUE**⁹:
 - Symptomatic or sustained SVT¹⁰; **OR**
 - Wolff-Parkinson-White (WPW) pattern with syncope¹¹; **OR**
 - Episode of pre-excited atrial fibrillation¹¹; **OR**
 - New cardiomyopathy likely caused by focal atrial tachycardia¹⁰; **OR**
 - For evaluation of asymptomatic patients with ventricular preexcitation pattern to determine **ANY** of the following:
 - Inducibility of atrioventricular reentrant tachycardia (AVRT)¹²; **OR**
 - Rapidity of antegrade conduction as a risk factor for sudden cardiac arrest¹³; **OR**

- For the presence of manifest ventricular preexcitation which would interfere with certain types of employment (including, but not limited to, pilots, military service, firefighters, competitive athletes, etc.)¹¹; **OR**
- The procedure is for ventricular arrhythmia and **ANY** of the following is **TRUE**:
 - High PVC frequency (greater than 15% of beats and predominantly of one morphology) associated with symptoms or diminished left ventricular ejection fraction (less than 50%) on cardiac imaging¹⁵; **OR**
 - When a PVC of similar morphology is a trigger for other arrhythmias, such as ventricular fibrillation (VF)¹⁶; **OR**
 - Frequent PVCs refractory to medical therapy, which are interfering with the effectiveness of biventricular pacing¹⁷; **OR**
 - Sustained symptomatic monomorphic ventricular tachycardia (VT) in a structurally normal heart¹⁸; **OR**
 - Episodes of VT causing excessive ICD shocks (e.g., in arrhythmogenic right cardiomyopathy, Brugada syndrome, sarcoidosis)¹⁹⁻²¹; **OR**
 - Recurrent sustained monomorphic VT in a patient with structural heart disease that is refractory to or intolerant of antiarrhythmic therapy²²; **OR**
 - Cardiomyopathy with VT storm¹⁵; **OR**
 - Sustained monomorphic VT in repaired tetralogy of Fallot^{14,15}; **OR**
 - In other forms of congenital heart disease (CHD) with sustained VT, which have undergone appropriate evaluation and treatment for anatomic and hemodynamic etiologies.^{14,23}

Non-Indications

Cardiac ablation is not considered appropriate if **ANY** of the following is **TRUE**²⁻⁴:

- The procedure is for AV node ablation, and **ANY** of the following is **TRUE**²⁴:
 - The patient is a candidate for pharmacologic rhythm control; **OR**
 - The patient is taking a pharmacologic agent that is successfully achieving rate control; **OR**
 - The patient is not a candidate for permanent pacing; **OR**
- The procedure is an electrophysiology study/ablation for SVT and the patient has nonsustained, asymptomatic SVT¹⁰; **OR**

- The procedure is cardiac ablation for ventricular arrhythmia and **ANY** of the following is **TRUE**¹⁵:
 - The patient has infrequent nonsustained VT; **OR**
 - The patient has torsades de pointes or other sustained polymorphic VT; **OR**
 - After the patient has experienced VF arrest.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
93650	Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block
93653	Comprehensive electrophysiologic evaluation with insertion and repositioning of multiple electrode catheters, induction or attempted induction of an arrhythmia with right atrial pacing and recording and catheter ablation of arrhythmogenic focus, including intracardiac electrophysiologic 3-dimensional mapping, right ventricular pacing and recording, left atrial pacing and recording from coronary sinus or left atrium, and His bundle recording, when performed; with treatment of supraventricular tachycardia by ablation of fast or slow atrioventricular pathway, accessory atrioventricular connection, cavo-tricuspid isthmus or other single atrial focus or source of atrial re-entry
93654	Comprehensive electrophysiologic evaluation with insertion and repositioning of multiple electrode catheters, induction or attempted induction of an arrhythmia with right atrial pacing and recording and catheter ablation of arrhythmogenic focus, including intracardiac electrophysiologic 3-dimensional

	mapping, right ventricular pacing and recording, left atrial pacing and recording from coronary sinus or left atrium, and His bundle recording, when performed; with treatment of ventricular tachycardia or focus of ventricular ectopy including left ventricular pacing and recording, when performed
93655	Intracardiac catheter ablation of a discrete mechanism of arrhythmia which is distinct from the primary ablated mechanism, including repeat diagnostic maneuvers, to treat a spontaneous or induced arrhythmia
93656	Comprehensive electrophysiologic evaluation including transseptal catheterizations, insertion and repositioning of multiple electrode catheters with intracardiac catheter ablation of atrial fibrillation by pulmonary vein isolation, including intracardiac electrophysiologic 3-dimensional mapping, intracardiac echocardiography including imaging supervision and interpretation, induction or attempted induction of an arrhythmia including left or right atrial pacing/recording, right ventricular pacing/recording, and His bundle recording, when performed
93657	Additional linear or focal intracardiac catheter ablation of the left or right atrium for treatment of atrial fibrillation remaining after completion of pulmonary vein isolation

Disclaimer: S Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Evaluation of Clinical Harms and Benefits

Clinical determinations for Medicare Advantage beneficiaries are made in accordance with 42 CFR 422.101 guidance outlining CMS's required approach to decision hierarchy in the setting of NCDs/LCDs identified as being "not fully established". When clinical coverage criteria are "not fully established" Medicare Advantage organizations are instructed to create publicly accessible clinical coverage criteria based on widely-accepted clinical guidelines and/or scientific studies backed by a robust clinical evidence base. Clinical coverage criteria provided by Cohere Health in this manner include coverage rationale and risk/benefit analysis.

The potential clinical harms of using these criteria for cardiac ablation may include:

- Adverse effects from delayed or denied treatment, including progressive atrial remodeling and the development of atrial fibrosis, which may lead to long-term progression of atrial fibrillation (AF). In one study, 80% of isolated AF became recurrent or persistent AF.² The presence of AF increases the risk of heart failure, stroke, dementia, and all-cause mortality, with a higher risk of mortality in recurrent or sustained AF compared to isolated AF.²⁵
- Risks with surgical procedures include infection, bleeding, injury to cardiac structures, anesthetic risk, and the need for repeat or additional procedures due to complications. Both catheter and surgical ablation carry high risk of AF recurrence, which may be asymptomatic.² Early recurrence, within the first 3 months of the procedure, is seen in more than 50% of patients, while late recurrence, 3-9 months after the procedure, occurs in 25-40% of patients.

The clinical benefits of using these criteria for cardiac ablation may include:

- Improved patient selection, resulting in better long-term outcomes, primarily from elimination or reduction of arrhythmia-related symptoms, including palpitations, fatigue, and effort intolerance.² Patient selection for cardiac ablation based on symptom presentation ensures that patients likely to experience beneficial effects receive the procedure, while patients unlikely to benefit avoid unnecessary and ineffective procedures.

- In their guideline for the management of patients with atrial fibrillation, the American College of Cardiology, American Heart Association, and Heart Rhythm Society recommend considering patient-specific factors including symptom severity, hemodynamic status, presence of heart failure, and potential precipitants of atrial fibrillation when determining treatment for AF.³ Medical management of AF may be contraindicated in some patients because of increased risk of medication-induced adverse events, including decompensation of heart failure, exacerbation of chronic obstructive pulmonary disease, or acceleration of conduction.
- AV node ablation with permanent pacemaker implantation is irreversible and results in lifelong pacemaker dependency, underscoring the necessity of careful patient evaluation and counseling. Patients with tachycardia-induced cardiomyopathy with ventricular rate control refractory to medical therapy are most likely to benefit from this procedure.³
- In appropriately selected patients with paroxysmal AF without previous antirhythmic drug treatment, ablation may result in a lower rate of recurrent atrial tachyarrhythmias after 2 years.⁴ Approximately 60% of patients that have unsuccessfully tried at least 1 antirhythmic drug achieve control with a single ablation procedure.
- Maintenance of rigorous patient safety standards aligned to best available evidence. Patients not eligible for permanent pacing who undergo AV node ablation are at risk for bradycardia, hemodynamic collapse, or sudden cardiac death.²⁶
- Patients with nonsustained, asymptomatic SVT who undergo electrophysiology study/ablation for SVT are exposed to procedural risks including pericardial effusion and hospitalization, with little to no expected benefit. Inappropriately selected patients may risk unnecessary harm for a benign and asymptomatic condition.²⁷
- Patients with torsades de pointes or other sustained polymorphic VT who undergo cardiac ablation for ventricular arrhythmia are exposed to unnecessary procedural risks without a high chance for benefit. Polymorphic VTs typically have no functional target for ablation and ablation is unlikely to control polymorphic VTs.²⁸
- Patients who have experienced VF arrest and undergo cardiac ablation for ventricular arrhythmia are at increased risk for damage to the left

His-Purkinje system, and newly emergent monomorphic VT originating from the Purkinje network in the ischemic scar area close to the VF ablation sites.^{[29](#)}

Medical Evidence

In a 2024 New England Journal of Medicine study, Sapp and colleagues reported the results of a clinical trial comparing catheter ablation and antiarrhythmic drug therapy in 416 patients with previous myocardial infarction, clinically significant ventricular tachycardia, and an implantable cardioverter-defibrillator.³⁰ In the 4-year follow-up period, death, ventricular tachycardia storm, ICD shock, or sustained ventricular tachycardia were reported in significantly more patients treated with drug therapy compared to patients treated with ablation (60.6% vs. 50.7%, respectively). The authors concluded that, in patients with ischemic cardiomyopathy and ventricular tachycardia, first-line treatment with ablation leads to better outcomes compared to drug therapy. Notably, the authors also reported that the risk of procedural complications, including death (2 patients), non-fatal stroke (2 patients), cardiac perforation (1 patient), and vascular injury (5 patients), was higher in patients receiving ablation as an initial treatment strategy. However, the authors also note that antiarrhythmic drugs also carry risks, including death due to pulmonary infiltrates (1 patient) or fibrosis (7 patients), as well as gastrointestinal, neurologic, thyroid-related, or liver-related adverse effects (25 patients).

In 2024 the European Society of Cardiology and the European Association for Cardio-Thoracic Surgery published guidelines for the management of atrial fibrillation. Van Gelder and colleagues recommend medical management, including beta-blockers, diltiazem, verapamil, digoxin, or their combination before considering ablation for atrial fibrillation (AF). Ablation is recommended for patients unresponsive to or ineligible for these therapies.⁶

The 2023 American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines issued their guideline for the diagnosis and management of atrial fibrillation, noting that while earlier recommendations differed according to whether the atrial fibrillation (AF) was persistent or paroxysmal, recent studies demonstrate that ablation is more effective than pharmacological management of both persistent and paroxysmal AF.⁵ Moreover, studies also demonstrate that earlier ablation may improve success rates. The guidelines reference the STOP-AF trial, which

randomized patients who had failed at least one AF drug to receive either another antiarrhythmic drug or catheter ablation. At one year follow-up, AF was relieved in 70% of catheter patients compared to only 7% of drug patients. Similar findings have been reported in other clinical trials.

Calkins et al. (2017) published an expert consensus statement with the Heart Rhythm Society, the European Heart Rhythm Association (EHRA) and the European Cardiac Arrhythmia Society, updating guidelines on catheter and surgical ablation based on advances in atrial fibrillation ablation. These guidelines recommend that clinicians consider the amount of time an individual spends in AF (24-hour AF burden) when determining the appropriateness of ablation. This is primarily due to the increased use of implantable loop recorders, pacemakers, and ICDs.²

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Clinical Guideline Revision History/Information

Original Date: May 28, 2024		
Review History		
Version 2	06/11/2024	422.101 Disclaimer added
Version 3	06/12/2025	<p>Annual review.</p> <p>Moved code 93462 to cardiac catheterization policy.</p> <p>Removed 93613, 93631, 93662 (see electrophysiological study, EPS policy).</p> <p>Specified that ablation for atrial fibrillation is only for the left atrium.</p> <p>Literature review – Medical Evidence and Harms/Benefits sections updated (including references).</p>