Cohere Medicare Advantage Policy - Cardiac Ablation

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Other Notices:

Guideline Information:

Specialty Area: Cardiovascular Disease
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Type: [**X**] Adult (18+ yo) | [_] Pediatric (0-17yo)

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Medical Necessity Criteria

Service: Cardiac Ablation

Benefit Category

Not applicable.

Recommended Clinical Approach

- Cardiac ablation for atrial fibrillation: Catheter ablation is a procedural approach to rhythm control for atrial fibrillation. As atrial fibrillation can become refractory to medication over time, ablation is often recommended for symptomatic patients who have become refractory to or intolerant of medical therapy. Ablation, at minimum, entails the isolation of tissue around pulmonary vein ostia using radiofrequency or cryothermal energy. Approach an ablation strategy with a realistic risk-benefit analysis of outcomes. Ablation of atrial fibrillation is a higher-risk proposition for a patient who is unable to be treated with anticoagulant therapy before, during, and after the ablation.
- For AV node ablation: AV nodal ablation in the context of atrial fibrillation is a palliative treatment for persistent or permanent atrial fibrillation, which is symptomatic, has failed rhythm and rate control, and may be causing tachyarrhythmia-induced heart failure. This procedure must be performed in patients with a pre-existing pacemaker or patients for whom a pacemaker implant is planned during the same procedure. AV node ablation is not considered a first-line treatment for rate control of atrial fibrillation.[1-3] AV nodal ablation is a palliative treatment performed and has distinct indications separate from other therapeutic cardiac ablations.
- Cardiac ablation for atrial flutter: Catheter ablation is a procedural approach to rhythm control for atrial flutter. As atrial flutter is often symptomatic and can be a trigger for atrial fibrillation, ablation is often recommended for patients who have become refractory to medical therapy. Ablation of typical flutter at minimum entails isolation of tissue involved in the macroreentrant circuit rotating around the tricuspid annulus, using radiofrequency or cryothermal energy. Alternatively, an atrial flutter circuit created by a past cardiac surgical scar can be identified using mapping techniques, and an ablation line can be drawn through this circuit to disrupt continuity.[4] Scar-mediated atrial flutter circuits can be located in the right or left atrium, traverse across chambers, and be multiple in number.[5] There are very few factors that make ablation of atrial flutter inappropriate. The ablation of typical

atrial flutter is low risk and is a relatively straightforward procedure. Scar-mediated flutter ablations can be more complex anatomically but still have good success rates with catheter ablation.

- Cardiac ablation for SVT: Catheter ablation is an acceptable first-line therapy for the treatment of SVT. Catheter ablation can be used before any medication because of its high success and low complication rate. Arrhythmia substrate can be approached using radiofrequency or cryothermal energy, depending on location. Cryoablation has dramatically reduced the probability of inadvertent AV block during ablation procedures.[6]
- Cardiac ablation for ventricular arrhythmias: Catheter ablation of ventricular arrhythmias is a common approach to treatment, especially when the mechanism is refractory to antiarrhythmic therapy. VT can be due to a reentrant mechanism (often related to a scar-mediated circuit) or a focal area of excitability. PVCs with a high-frequency burden on monitoring are often the cause of diminished ventricular function, which can be reversed with catheter ablation.[7-8] In certain forms of VT, an epicardial substrate can be identified. This often requires the insertion of a mapping/ablation catheter from a subxiphoid approach to access the area where the arrhythmia originates.[9]

Evaluation of Clinical Benefits and Potential Harms

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of cardiac ablation procedures. This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, adverse reactions, and infection.

The potential clinical harms of using these criteria may include:

- Adverse effects from delayed or denied treatment: Delays or denials in cardiac ablation procedures can lead to increased symptoms and complications, especially in patients with atrial fibrillation and other arrhythmias. Calkins et al. emphasized the importance of timely and appropriate use of catheter ablation to manage atrial fibrillation effectively.[1]
- Risks with inappropriate surgical procedures: This includes infection, bleeding, injury to cardiac structures, anesthetic risk, and the need for repeat or additional procedures due to complications. January et al.

outlined the guidelines for the management of atrial fibrillation, emphasizing the role of catheter ablation in appropriate patients.[2] Joglar et al. updated this guideline in late 2023.[16]

The clinical benefits of using these criteria include:

- Improved patient outcomes: Ensuring timely and appropriate access to cardiac ablation procedures for the patients selected for best outcomes. The goal is to provide accurate diagnostics and effective treatment planning, reducing the risk of complications and improving overall patient health. Proper use of catheter ablation is crucial for reducing symptoms and adverse events in patients with atrial fibrillation.[1]
- Enhanced diagnostic accuracy: This is crucial for complex arrhythmias such as atrial fibrillation and ventricular arrhythmias. Accurate diagnostics and treatment planning help to prevent complications and improve patient outcomes. The guidelines by January et al. and Page et al. highlight the benefits of catheter ablation for managing arrhythmias.[2,4]
- Reduction in complications and adverse effects: Proper use of cardiac ablation criteria helps to avoid unnecessary interventions and their associated risks, thus safeguarding patient health. Hollanda Oliveira et al. reported on the underuse of catheter ablation as first-line therapy for supraventricular tachycardia, emphasizing the need for appropriate use of ablation procedures.[6]
- Enhanced overall patient satisfaction: Ensuring that cardiac ablation is used appropriately leads to better patient outcomes and higher satisfaction rates due to effective treatment and reduced complications. Gopinathannair et al. reported on the management of atrial fibrillation in patients with heart failure, highlighting the role of ablation in improving patient outcomes.[10]

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are employed to prevent inappropriate denials, ensuring that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

- ➔ **Cardiac ablation** is considered appropriate if **ANY** of the following is **TRUE**:
  - ◆ The patient has symptomatic paroxysmal atrial fibrillation and has become refractory or cannot tolerate treatment with an antiarrhythmic drug or antiarrhythmic drug therapy is not preferred; **OR**
  - ◆ The patient has tachy-brady syndrome (e.g., as an alternative to pacemaker implantation); **OR**
  - ◆ The patient has symptomatic paroxysmal atrial fibrillation and has clinical factors that would be contraindications to taking an antiarrhythmic drug; **OR**
  - ◆ The patient has symptomatic persistent atrial fibrillation and has become refractory or intolerant to an antiarrhythmic drug; **OR**
  - ◆ For recurrent episodes of symptomatic atrial fibrillation, which occur greater than three months after the initial procedure (ablation); **OR**
  - ◆ In selected patients (generally younger with few comorbidities) with symptomatic paroxysmal AF in whom rhythm control is desired, catheter ablation is useful as first-line therapy to improve symptoms and reduce progression to persistent AF; **OR**
  - ◆ In patients (other than younger with few comorbidities) with symptomatic paroxysmal or persistent AF who are being managed with a rhythm-control strategy, catheter ablation as first-line therapy can be useful to improve symptoms; **OR**
  - ◆ In selected patients (younger patients with few comorbidities and a moderate to high burden of AF or persistent AF and AFL) with asymptomatic or minimally symptomatic AF, catheter ablation may be useful for reducing the progression of AF and its associated complications; **OR**

- In appropriate patients with AF and HFrEF who are on GDMT and with reasonable expectation of procedural benefit, catheter ablation is beneficial to improve symptoms, QOL, ventricular function, and cardiovascular outcomes; **OR**
- In appropriate patients with symptomatic AF and HFpEF with a reasonable expectation of benefit, catheter ablation can be useful to improve symptoms and improve QOL; **OR**
- The procedure is **atrioventricular node ablation** and **ALL** of the following are **TRUE**[10-11]:
    - Persistent or permanent atrial fibrillation; **AND**
    - The patient is an unfavorable candidate for rhythm control, either by pharmaceutical or interventional means; **AND**
    - Pharmacologic rate control has been unsuccessful due to rhythm refractoriness or patient intolerance; **AND**
    - The patient has a permanent pacemaker implanted or is an appropriate candidate for ventricular pacing; **AND**
    - The patient is at-risk of developing or has a history of heart failure; **AND**
    - Suspected tachycardia-mediated cardiomyopathy; **OR**
- The procedure is **cardiac ablation for atrial flutter** and **ANY** of the following is **TRUE:** [1,12-14]
    - The patient has symptomatic atrial flutter and has become refractory or cannot tolerate treatment with an antiarrhythmic drug; **OR**
    - The patient has new-onset atrial flutter and is determined to be a favorable candidate for ablation as a first-line therapy vs antiarrhythmic medication; **OR**
    - Recurrence of atrial flutter with a reasonable expectation of success with a redo procedure; **OR**
    - Recurrent episodes of symptomatic atrial flutter; **OR**
- The procedure is an **electrophysiology study (EPS)/cardiac ablation for supraventricular tachycardia (SVT)** and **ANY** of the following is **TRUE**:
    - Symptomatic or sustained SVT; **OR**
    - WPW pattern[15]; **OR**
    - After any episode of pre-excited atrial fibrillation[15]; **OR**
    - A focal atrial tachycardia which is the likely etiology of new cardiomyopathy; **OR**

- For evaluation of asymptomatic patients with ventricular preexcitation patterns to determine **ANY** of the following:
    - Inducibility of AVRT; **OR**
    - The rapidity of antegrade conduction as a risk factor for sudden cardiac arrest; **OR**
- For the presence of manifest ventricular preexcitation which would interfere with certain types of employment (e.g., pilots, military service)[15]; **OR**

◆ The procedure is **cardiac ablation for ventricular arrhythmia** and **ANY** of the following is **TRUE**:

- Symptomatic premature ventricular complexes (PVCs) in a patient refractory to or intolerant to antiarrhythmic therapy; **OR**
- High PVC frequency (greater than 15% of beats) is associated with symptoms or diminished LV function (LVEF less than 50%) on cardiac imaging; **OR**
- When a PVC of similar morphology is a trigger for other arrhythmias, such as VF; **OR**
- Frequent PVCs refractory to medical therapy, which are interfering with the effectiveness of biventricular pacing; **OR**
- Sustained symptomatic monomorphic VT in the structurally normal heart; **OR**
- Episodes of VT causing excess appropriate ICD shocks (e.g., in ARVC, Brugada Syndrome, sarcoidosis); **OR**
- Recurrent sustained monomorphic VT in a patient with structural heart disease that is refractory to or intolerant to antiarrhythmic therapy[9]; **OR**
- First episode of monomorphic sustained ventricular tachycardia (lasting 30 seconds or more) in a patient with an ICD to reduce the risk of recurrent ventricular tachycardia or ICD interventions (e.g., shock, pacing); **OR**
- Previous myocardial infarction with recurrent episodes of symptomatic sustained ventricular tachycardia (lasting 30 seconds or more) and **ALL** of the following:
    - Unsuccessful prior endocardial catheter ablation; **AND**
    - Evidence of subepicardial substrate (e.g., ECG, mapping, imaging); **OR**

- Nonischemic cardiomyopathy with recurrent sustained monomorphic ventricular tachycardia (lasting 30 seconds or more) where antiarrhythmic therapy has failed, is not tolerated, or is not preferred; **OR**
- In cardiomyopathy with VT storm; **OR**
- Sustained monomorphic VT in repaired Tetralogy of Fallot[8]; **OR**
- In other forms of adult congenital heart disease (ACHD) with sustained VT, which have undergone appropriate evaluation and treatment for anatomic and hemodynamic etiologies[8,15]; **OR**
- Symptomatic frequent premature ventricular contractions (e.g., more than 15% of beats) originating from the right ventricular outflow tract in an otherwise normal heart; **OR**
- Focally triggered ventricular fibrillation, resistant to antiarrhythmic medications, initiated by a similar premature ventricular contraction; **OR**
- Idiopathic symptomatic (outflow tract or non-outflow tract) ventricular arrhythmia in otherwise normal heart and antiarrhythmic medications are ineffective, not tolerated, or not preferred; **OR**
- Reentrant ventricular tachycardia (e.g., bundle branch, His-Purkinje, or fascicular); **OR**
- Congenital heart disease with recurrent sustained (greater than 30 seconds) ventricular tachycardia or recurrent appropriate ICD shocks; **OR**
- Sarcoidosis with recurrent ventricular tachycardia refractory to medical therapy (e.g., immunosuppressive and antiarrhythmic medications).

Non-Indications

➔ **Cardiac ablation** is not considered appropriate if **ANY** of the following is **TRUE**:

◆ There are no published non-indications.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
+93462	Left heart catheterization by transseptal puncture through intact septum or by transapical puncture
+93613	Intracardiac electrophysiologic three-dimensional mapping
93631	Intraoperative epicardial and endocardial pacing and mapping to localize the site of tachycardia or zone of slow conduction for surgical correction
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, with attempted induction of arrhythmia, with right atrial pacing and recording, with treatment of supraventricular tachycardia by ablation
93654	Comprehensive electrophysiologic evaluation with insertion and repositioning of multiple electrode catheters, with attempted induction of arrhythmia, with right atrial pacing and recording, with focus of ventricular ectopy
+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 with transseptal catheterization, with insertion and repositioning of multiple electrode catheters, with attempted induction of arrhythmia, with atrial pacing and recording
+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
+93662	Intracardiac echocardiography during therapeutic/diagnostic intervention, including imaging supervision and interpretation

Medical Evidence

January et al. (2014) published an evidence-based, systematic review and subsequent guidelines for the American Heart Association, American College of Cardiology, and the Heart Rhythm Society for the *Management of Patients with Atrial Fibrillation*. A number of recommendations were made or revised for optimum management of atrial fibrillation. Atrioventricular (AV) nodal ablation with permanent ventricular pacing is recommended to control heart rate when pharmacological therapy has not been effective and rhythm control not achieved. Ablation not recommended as a first-line treatment; medications should be utilized first whenever possible.[2]

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 to update guidelines based on advances in atrial fibrillation ablation since their previous publication. It was recommended that the amount of time an individual spends in AF (24-hour AF burden) is essential to address when ablation is being considered. This is due largely to the increase in the use of implantable loop recorders, pacemakers, and ICDs.[1]

A 2015 New England Journal of Medicine publication by Verma et al. describes catheter ablation procedures for persistent atrial fibrillation vs. paroxysmal atrial fibrillation. In this randomized trial of 589 patients, it was concluded that among patients with persistent atrial fibrillation, there was no reduction in the rate of recurrent atrial fibrillation when ablation was performed in addition to pulmonary vein isolation.[12]

Otto et al. (2021) published a Scientific Statement for the American Heart Association with recommendations for the management of valvular heart disease. Regarding intervention for secondary mitral regurgitation, successful ablation of atrial fibrillation may reduce or eliminate mitral regurgitation.[14]

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Clinical Guideline Revision History/Information

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