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2025 Cardiac Ablation

Cardiology

CARD-CABL-HH

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Cardiac Ablation

Clinical Judgment

These medical policies are designed to provide clinical guidance and do not supplant a provider's independent professional judgment. Physicians retain full and independent authority to determine appropriate care based on each patient's individual clinical circumstances. Although services may be subject to documentation requirements, medical necessity review, or coverage limitations, nothing in this policy is intended to restrict or interfere with a physician's independent medical judgment.

Preamble: Pediatric Cardiology Preamble

HealthHelp's clinical guidelines for the Cardiology program, are intended to apply to both adults and pediatrics (21 years of age or younger), unless otherwise specified within the criteria.

Cardiac Ablation Guideline

A cardiac ablation is considered medically appropriate when the documentation demonstrates **ANY** of the following:

1. Atrial arrhythmias and **ANY** of the following:
    a. Atrial fibrillation (Afib) and **ANY** of the following:
        i. Asymptomatic and pre-excitation Afib is demonstrated on electrophysiology study (EPS) **OR** pre-excitation precludes specific employment (eg, pilot, bus driver, train engineer).
        ii. Congenital heart disease, simple, Afib is refractory **AND** antiarrhythmic medications are **NOT** effective.
        iii. Heart failure (HF) and **ANY** of the following:
            A. **NO** response to cardiac resynchronization therapy (CRT) and antiarrhythmic medications (biventricular pacing is more than 95%) are **NOT** effective.
            B. Heart failure with reduced ejection fraction (Left ventricular ejection fraction (LVEF) is 50% or less) (HFrEF) and **ANY** of the following:
                I. Guideline-directed medical therapy (GDMT) is tolerated.
                II. Ventricular response is rapid and refractory and is **NOT** a candidate for rhythm control **OR** rhythm control is **NOT** effective.

iv. Recurrent, after first-ablation

v. Reversible causes of Afib are ruled out (eg, alcohol intoxication, infection, obstructive sleep apnea, pericarditis, stimulant drug use, thyrotoxicosis) **AND** anticoagulants can be tolerated before and after the procedure for at least 2 months. (*__NOTE__: *Ablation should **NOT** be performed to obviate the need for anticoagulation when remaining on anticoagulation long term*.)

vi. Symptomatic (eg, dizziness, palpitations, shortness of breath) and **ANY** of the following:

A. Antiarrhythmic medications are **NOT** effective, **contraindicated or unavailable**, **NOT** preferred or **NOT** tolerated.

B. Cardiac surgery (eg, aortic valve, coronary artery bypass graft [CABG], mitral valve) is planned.

C. Heart failure with preserved EF (HFpEF)

D. Paroxysmal, younger (age is less than 60 years old) and **NO** or few comorbidities (eg, hypertension alone)

E. Paroxysmal or persistent (age is 60 years or more) and medication management is optimal.

vii. Ventricular rate is rapid and uncontrolled **AND** rate control medications are **NOT** effective or **NOT** tolerated.

b. Atrial flutter is symptomatic (eg, dizziness, palpitations, syncope, clinically significant (hemodynamically unstable) **OR** pharmacologic rate control is **NOT** effective.

c. Atrial tachycardia (AT) and **EITHER** of the following:

i. Focal, recurrent and incessant **OR** causing tachycardiomyopathy.

ii. Multifocal, recurrent, refractory to medication therapy with LV dysfunction.

d. Wolff-Parkinson-White (WPW) or pre-excitation atrial fibrillation (rapid anterograde conduction).

References: [2] [6] [8] [3] [7]

2. Hypertrophic obstructive cardiomyopathy is symptomatic (eg, chest pain, palpitations, shortness of breath) (despite guideline-directed medical therapy [GDMT]), **surgery is contraindicated or unavailable** or surgical risk is **NOT** acceptable, based on comorbidities or advanced age.
Reference: [7]

3. Sinus nodal reentrant tachycardia is demonstrated on electrocardiogram (ECG), symptomatic and medication therapy is **NOT** effective.
   Reference: [3]

4. Ventricular arrhythmias and **ANY** of the following:

   a. Atrioventricular reentrant tachycardia (AVRT) is recurrent and symptomatic (eg, chest pain, dizziness, palpitations, pounding sensation in the throat, shortness of breath, syncope).

   b. Outflow tract ventricular arrhythmia and antiarrhythmic medications are **NOT** effective, **NOT** tolerated or **NOT** preferred.

   c. Premature ventricular contraction (PVC) and **ANY** of the following:

      i. **ANY** of the following:

         A. Unifocal, very frequent PVCs (at least 1 PVC on 12-lead electrocardiogram [ECG] **OR** more than 30 PVCs per hour) with optimal medication therapy and **NO** response to cardiac resynchronization therapy (CRT).

         B. Ventricular fibrillation is focal and refractory to antiarrhythmic medications.

      ii. **ALL** of the following:

         A. Cardiomyopathy is known (± left ventricular [LV] dysfunction).

         B. Drug therapy is **NOT** effective.

         C. Frequent (at least 1 PVC on 12-lead electrocardiogram [ECG] **OR** more than 30 PVCs per hour)

         D. Monomorphic

   d. Rapid ventricular rate is demonstrated on electrophysiology study (EPS) and other arrhythmias were suspected.

   e. Symptomatic, originates from papillary muscle **AND** antiarrhythmic medications are **NOT** effective, **NOT** tolerated or **NOT** preferred.

   f. Ventricular fibrillation and **ALL** of the following:

      i. Idiopathic

      ii. PVC initiated

      iii. QRS morphology is consistent.

      iv. Recurrent

g. Ventricular pre-excitation demonstrated, asymptomatic and **ANY** of the following:

i. EPS identifies high-risk properties are present (eg, inducible accessory pathways [AP]-mediated tachycardia, multiple APs, shortest pre-excited RR interval in atrial fibrillation [SPERRI] , effective refractory period of the accessory pathway [AP ERP] of 250 ms or less).

ii. Family history of sudden cardiac death (SCD) is present.

iii. Left ventricular dysfunction due to electrical dyssynchrony

iv. Spontaneous tachyarrhythmia **AND** pre-excitation precludes specific employment (eg, pilot, bus driver, train engineer).

h. Ventricular tachycardia (VT) and **ANY** of the following: (*__NOTE__: *It is reasonable to undergo ablation during pregnancy, preferably after the 1st trimester*.)

i. Adult congenital heart disease is known and **EITHER** of the following:

A. VT causes recurrent implantable cardioverter-defibrillator (ICD) shocks.

B. VT is monomorphic, recurrent and sustained.

ii. Antiarrhythmic medication(s) are **NOT** effective, **NOT** tolerated or **NOT** preferred.

iii. Brugada syndrome, with polymorphic VT and **EITHER** of the following:

A. Recurrent ICD shocks

B. **NOT** a candidate for ICD **OR** refuse ICD.

iv. Fascicular, focal VT and medications are **NOT** effective, **NOT** tolerated or **NOT** preferred.

v. Left VT is idiopathic and verapamil-sensitive and **NOT** effective, **NOT** tolerated or **NOT** preferred.

vi. Monomorphic VT and **ANY** of the following:

A. Recurrent and drug therapy is **NOT** tolerated or **NOT** effective.

B. Recurrent and sustained and **ANY** of the following;

I. Arrhythmogenic cardiomyopathy (ACM) is known **AND** amiodarone is **NOT** effective or **NOT** tolerated.

II. Non-ischemic cardiomyopathy is known and antiarrhythmic medications are **NOT** effective, **contraindicated or not available** or **NOT** tolerated..

vii. Reentrant tachycardia and **ANY** of the following:

A. Bundle branch reentrant tachycardia

B. Idiopathic, left fascicular reentrant ventricular tachycardia and **ANY** of the following:

I. Medications are **NOT** effective, **NOT** tolerated or **NOT** preferred.

II. Pediatric individual, weighing 15 kg or more and medical treatment is **NOT** effective or **NOT** tolerated.

C. Reentrant Pukinje fiber-mediated VT after myocardial infarction (MI).

viii. Sarcoidosis is known and VT is recurrent.

ix. Supraventricular tachycardia (SVT) and **ANY** of the following:

A. Adult congenital heart disease (ACHD), pre- or intra-operative care for accessory pathways, **AND** atrial flutter or atrial tachycardia.

B. SVT occurs in multiple episodes **EITHER** of the following:

I. Antiarrhythmic medication(s) are **NOT** effective or **NOT** tolerated.

II. Symptomatic and planning pregnancy (*__NOTE__: *If currently pregnant, fluoroless catheter ablation is used*.)

C. Tachycardiomyopathy

x. Symptomatic (eg, chest pain, dizziness, lightheadedness, palpitations, shortness of breath), VT is recurrent and sustained and **ANY** of the following:

A. History of prior MI and medication(s) are **NOT** effective, **NOT** tolerated or **NOT** preferred.

B. Sustained and **ANY** of the following:

I. Arrhythmogenic cardiomyopathy (ACM) is known **AND FAILED** or did **NOT** tolerate antiarrhythmic medications.

II. Arrhythmogenic right ventricular cardiomyopathy is known **AND FAILED** or did **NOT** tolerate beta blockers.

III. VT storm and amiodarone is **NOT** effective or **NOT** tolerated and history of MI.

References: [1] [4] [8] [3] [5] [9]

Cardiac Ablation Procedure Codes

Table 1. Cardiac Ablation Associated Procedure Codes

CODE	DESCRIPTION
93650	Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement
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
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

Cardiac Ablation Summary of Changes

Cardiac ablation clinical guidelines from 2024 to 2025 had the following version changes:

- Added the following to keep in line with current evidence per the American College of Cardiology:
  - Under "Atrial fibrillation and **ANY** of the following"
    - "Asymptomatic and pre-excitation AF is demonstrated on electrophysiology study (EPS) **OR** pre-excitation precludes specific employment (eg, pilot, bus driver, train engineer)"
    - "Congenital heart disease and AF is refractory, despite treatment with antiarrhythmic medications."
    - "Heart failure (HF) and **ANY** of the following"
    - "Recurrent, after first-ablation"
  - Under "Ventricular tachycardia"
    - "Sarcoidosis is known and VT is recurrent"

- Changed the following to keep in line with current evidence per the American College of Cardiology:
  - "Atrial flutter" indication
  - Indications under "Arrhythmogenic cardiomyopathy (ACM)"
  - "Wolff-Parkinson-White (WPW)" indication
- Removed the following as current evidence no longer supports the indication:
  - "Continues for more than 7 days"
  - "Junctional tachycardia" under "Ventricular arrhythmia"
  - "Sustained, **NOT** managed by device reprogramming **OR** additive drug therapy and implantable cardio-defibrillator (ICD) is present." from under "Monomorphic VT"

Cardiac Ablation Definitions

Ablation is a procedure performed in a cardiac catheterization laboratory during an electrophysiology study (EPS) for the purpose of destroying myocardial tissue by delivery of radio-frequency energy, electrical or cryo-energy. The procedure is used to correct heart arrhythmias.
Accessory pathway is an abnormal muscular connection between the atrium and the ventricle that bypasses the normal atrioventricular conduction system, potentially leading to arrhythmias such as Wolff-Parkinson-White syndrome.
Antiarrhythmic Medications are a class of medications used to treat abnormal cardiac rates or rhythms. There are five groups of antiarrythmics: Group I sodium channel blockers, group II beta-blockers, group III potassium channel blockers, group IV calcium channel blockers and group V other mode of action medications.
Anticoagulant is a substance that is used to prevent and treat blood clots in blood vessels and the heart.
Arrhythmia is an irregular or abnormal heart rhythm. Arrhythmia refers to any change from the normal sequence of electrical impulses of the heart, causing abnormal heart rhythms. The electrical impulses may happen too fast, too slowly or erratically – causing the heart to beat too fast, too slowly or erratically.
Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a form of heart disease that usually appears in adulthood. ARVC is a disorder of the myocardium, which is the muscular wall of the heart. This condition causes part of the myocardium to break down over time, increasing the risk of an abnormal heartbeat (arrhythmia) and sudden death.
Atrial arrhythmias are irregular heartbeats that occur when the upper chambers of the heart (atria) beat out of rhythm with the lower chambers (ventricles). This can cause the heart to beat too fast, too slow, or in an irregular way. Atrial arrhythmias can be harmless or life-threatening.

Atrial fibrillation (AF) is a cardiac rhythm disorder characterized by uncontrolled atrial activation without effective atrial contraction. On the electrocardiogram (ECG), P waves are absent. AF is characterized by rapid oscillations or fibrillatory waves that vary in amplitude, shape and timing associated with an irregular ventricular response.

- **Paroxysmal AF** terminates spontaneously or with intervention within 7 days of onset. Episodes typically convert back to sinus rhythm within 48 hours.
- **Persistent AF** is continuous AF sustained beyond 7 days.

Atrial flutter is a rhythm disorder characterized by coordinated electrical activity in the atria, and the electrocardiogram (ECG) shows a saw tooth pattern of the flutter waves.

- Typical atrial flutter is localized to the right atrium.
- Atypical atrial flutter refers to atrial flutter arising in the left atrium.

Atrial tachycardia (AT) is an episode where the heart rate increases to more than 100 beats a minute before returning to a typical heart rate of around 60 to 80 beats a minute. An episode may start gradually or it may start abruptly, and can cause a feeling of a pounding or racing heartbeat, light-headedness, dizziness and fainting.

Atrioventricular reentrant tachycardia (AVRT) is an abnormal fast heart rhythm, classified as a type of supraventricular tachycardia (SVT). In AVRT an accessory pathway allows electrical signals from the heart's ventricles to enter the atria and cause earlier than normal contraction, which leads to repeated stimulation of the atrioventricular (AV) node.

Brugada syndrome is a rare inherited cardiovascular disorder characterized by disturbances affecting the electrical system of the heart. The main symptom is irregular heartbeat and, without treatment, may result in sudden death.

Bundle branch reentrant tachycardia is an uncommon form of ventricular tachycardia (VT) incorporating both bundle branches in the reentry circuit. This often occurs as a result of His-Purkinje disease associated with left ventricular (LV) enlargement and heart failure (HF). People typically present with presyncope, syncope or sudden death because of VT, with fast rates frequently more than 200 beats per minute.

Cardiac resynchronization therapy is a procedure to implant a device in the chest to make the heart's chambers contract in a more organized and efficient way. Cardiac resynchronization therapy (CRT) uses a device called a biventricular pacemaker (also called a cardiac resynchronization device) that sends electrical signals to both ventricles. The signals trigger the ventricles to contract in a more coordinated way, which improves the pumping of blood out of the heart. Sometimes the device also contains an implantable cardioverter-defibrillator (ICD), which can deliver an electrical shock to reset the heart if the heart rhythm becomes dangerously erratic.

Cardiomyopathy is a disease of the heart muscle that makes it harder for the heart to pump blood to the rest of the body. Cardiomyopathy can lead to heart failure. The main types of cardiomyopathy include dilated, hypertrophic and restrictive cardiomyopathy.

Congenital heart disease (CHD) is a term for a variety of birth defects that affect heart anatomy and function. Congenital is defined as present since birth. CHD occurs when the heart, or blood vessels near the heart, do not develop normally. Common heart defects include: atrial septal defect, coarctation of the aorta, d-transposition of the great arteries, Ebstein's anomaly, patent ductus arteriosus, tetralogy of fallot, total anomalous pulmonary venous connection and ventricular septal defect.

Table 1. Adult Congenital Heart Disease Classifications

Classification	CHD Anatomy

Simple	• Native Anatomy
	  ▪ Isolated, small ASD
	  ▪ Isolated, small VSD
	  ▪ Mild, isolated pulmonic stenosis
	• Repaired Conditions
	  ▪ Previously ligated or occluded ductus arteriosus
	  ▪ Repaired secundum ASD or sinus venosus defect without significantresidual shunt or chamber enlargement
	  ▪ Repaired VSD without significant residual shunt or chamberenlargement

Classification	CHD Anatomy
Moderate Complexity	• Repaired or unrepaired conditions ▪ Aorto-left ventricular fistula ▪ Anomalous pulmonary venous connection, partial or total ▪ Anomalous coronary artery arising from the pulmonary artery ▪ Anomalous aortic origin of a coronary artery from the opposite sinus ▪ AVSD (partial or complete, including primum ASD) ▪ Congenital aortic valve disease ▪ Congenital mitral valve disease ▪ Coarctation of the aortan Ebstein anomaly (disease spectrum includes mild, moderate, and severevariations) ▪ Infundibular right ventricular outflow obstruction ▪ Ostium primum ASD ▪ Moderate and large unrepaired secundum ASD ▪ Moderate and large persistently patent ductus arteriosus ▪ Pulmonary valve regurgitation (moderate or greater) ▪ Pulmonary valve stenosis (moderate or greater) ▪ Peripheral pulmonary stenosis ▪ Sinus of Valsalva fistula/aneurysm ▪ Sinus venosus defect ▪ Subvalvar aortic stenosis (excluding HCM ▪ Supravalvar aortic stenosis ▪ Straddling atrioventricular valve ▪ Repaired tetralogy of Fallot ▪ VSD with associated abnormality and/or moderate or greater shunt

Classification	CHD Anatomy
Great Complexity (or complex)	• Cyanotic congenital heart defect (unrepaired or palliated, all forms) • Double-outlet ventricle • Fontan procedure • Interrupted aortic arch • Mitral atresia • Single ventricle (including double inlet left ventricle, tricuspid atresia,hypoplastic left heart, any other anatomic abnormality with a functionally single ventricle) • Pulmonary atresia (all forms) • TGA (classic or d-TGA; CCTGA or l-TGA) • Truncus arteriosus • Other abnormalities of atrioventricular and ventriculoarterial connection (i.e.,crisscross heart, isomerism, heterotaxy syndromes, ventricular inversion)

Coronary artery bypass graft (CABG) is a surgical procedure performed to shunt blood around a narrowing or blockage in the coronary artery of the heart. This procedure involves attaching one end of a segment of blood vessel (eg, a vein of the leg) that was removed from another part of the body into the aorta, and the other end of the segment into the coronary artery beyond the obstructed area, to increase blood flow.

Effective refractory period of the accessory pathway (AP ERP) is the longest interval of the input into a part of the conduction system that fails to propagate through an accessory pathway.

Ejection fraction (EF) is a measurement of how much blood the left ventricle pumps out with each contraction. It is measured in percentages with a normal measurement usually between 50 and 70%.

Electrical cardioversion, also known as a cardioversion, is a procedure used to treat an abnormal and rapid heart rhythm (cardiac arrhythmia).

Electrical dyssynchrony is a condition where the heart's electrical signals are out of sync, causing the heart muscle to beat abnormally. It's a type of cardiac dyssynchrony, which is a general term for when the heart's electrical or mechanical activity is not coordinated.

Electrocardiogram (ECG or EKG) is a test that measures and records the electrical activity of the heart. The ECG electrical activity is divided into the P wave, PR interval, QRS complex, QT interval, ST segment, T wave and U wave. An ECG is useful in establishing many cardiac diagnoses.

Electrophysiology study (EPS) is a minimally invasive procedure that evaluates the electrical conduction system of the heart to assess the electrical activity, conduction pathways and abnormal heart beats. During an EPS, the sinus rhythm, and supraventricular and ventricular arrhythmias of baseline cardiac intervals, are recorded. The study is indicated to investigate

the cause, location of origin and best treatment (drug therapy, catheter ablation or implantable cardioverter-defibrillator), for various abnormal heart rhythms.

Fascicular is a group of muscle or nerve fibers.

Fascicular ventricular tachycardia (VT) is a type of idiopathic VT that is sensitive to verapamil and involves the His-Purkinje system, specifically the left posterior, left anterior, or upper septal fascicles.

Focal is something that is limited to a specific area.

Functional status is one's ability to perform daily activities required to meet basic needs, fulfill usual roles, and maintain their health and well-being.

Guideline directed medical therapy (GDMT) for Heart Failure is the cornerstone of pharmacological therapy for patients with heart failure with reduced ejection fraction (HFrEF) and consists of the four main drug classes: renin-angiotensin system inhibitors, evidence-based β-blockers, mineralocorticoid inhibitors and sodium glucose cotransporter 2 inhibitors.

Heart failure (HF) (also known as **congestive heart failure [CHF]**) is a condition that develops when the heart is unable to pump enough blood for the body's needs. HF occurs when the heart cannot fill with enough blood or is too weak to pump properly. Decompensated heart failure is sudden worsening (exacerbation) of heart failure symptoms (eg, difficulty breathing, lower extremity edema, fatigue) to where the heart can no longer continue to compensate for its full function.

Hypertrophic cardiomyopathy (HCM) is an inherited cardiac condition characterized by unexplained left ventricular hypertrophy, often leading to impaired diastolic filling and potential obstruction of the left ventricular outflow tract.

Idiopathic is a condition or disease with no identifiable cause.

Implantable cardiac defibrillator (ICD) is a battery-powered device placed under the skin that keeps track of the heart rate. Thin wires connect the ICD to the heart. If an abnormal heart rhythm (heart beating chaotically or much to fast) is detected, the device will deliver a shock to restore a normal heartbeat.

Incessant is something that continues without interruption.

Ischemia is a deficient supply of blood to a body part (such as the heart or brain) due to obstruction of the inflow of arterial blood.

Junctional tachycardia (JT) is a type of supraventricular tachycardia (SVT) that is triggered from the atrioventricular node.

Left ventricular dysfunction is the inability of the ventricle to fill to a normal end-diastolic volume, both during exercise as well as at rest, while left atrial pressure does not exceed 12 mm Hg.

Left ventricular ejection fraction (LVEF), also known as ejection fraction (EF), is defined as the percentage of blood ejected from the left ventricle during each contraction.

Monomorphic is something that has a single structural pattern.

Multifocal is having more than one focus or originating from more than one location. It can be used to describe diseases, lenses, and motor neuropathies.

Obstructive sleep apnea (OSA) is a sleep disorder that causes breathing to repeatedly stop and start during sleep. It occurs when the muscles in the throat relax too much, narrowing or blocking the airway.

Paroxysmal is a sudden attack or increase of symptoms of a disease (such as pain, coughing, shaking, etc.) that often occurs again and again.

Pericarditis is inflammation of the cavity or space that contains the heart.

Persistent means to continue to exist despite interference or treatment.

Pharmacological cardioversion is the administration of drugs to restore sinus rhythm as a first intervention (not after failed cardioversion by another method), for a rapid heart rate.

Polymorphic ventricular tachycardia (VT) is defined as a ventricular tachyarrhythmia with a continually changing QRS morphology from beat to beat, often accompanied by irregular R-R intervals. Polymorphic VT can present with light-headedness, syncope, or cardiac arrest, and may degenerate into ventricular fibrillation (VF). The electrocardiographic appearance of polymorphic VT includes variable QRS complex morphologies and axes, which can make it challenging to distinguish from VF.

Postinfarction is something that occurs after, and especially as a result of, a myocardial infarction (MI).

Pre-excitation is a heart condition that occurs when the ventricles of the heart are activated too early. It's caused by an abnormal electrical connection that allows atrial activity to bypass the atrioventricular (AV) node and directly activate the ventricles.

Premature ventricular contractions (PVCs) are extra, abnormal heartbeats that begin in the ventricles, or lower pumping chambers, and disrupt your regular heart rhythm, sometimes causing you to feel a skipped beat or palpitations.

Purkinje fiber-mediated reentrant tachycardia is a rapid cardiac arrhythmia caused by abnormal electrical circuits in the heart controlled by the Purkinje fibers (which deliver electrical signals to the ventricles through the sinoatrial (SA) and atrioventricular (AV) nodes to make them contract).

Rapid ventricular response are rapid contractions of the atria which make the ventricles beat too quickly. If the ventricles beat too fast, they can't receive enough blood.

Recurrent is when a disease is occurring often or repeatedly.

Refractory is resistance to treatment or cure.

Sarcoidosis is a chronic disease of unknown cause, that is characterized by the formation of nodules, especially in the lymph nodes, lungs, bones and skin.

Shortest pre-excited R-R interval (SPERRI) is represents the shortest time between preexcited QRS complexes during atrial fibrillation (Afib). Short SPERRIs are associated with Wolff Parkinson White syndrome.

Sinus nodal reentrant tachycardia (SNRT) is characterized by an abrupt onset and termination, and can be terminated by vagal maneuvers, verapamil, or adenosine.
Spontaneous tachyarrhythmia is a rapid, abnormal heart rhythm that develops without an apparent cause.
Substrate is a pre-existing condition that forms a prerequisite for the induction of an arrhythmia.
Sudden cardiac death (SCD) occurs when the heart malfunctions and unexpectedly and suddenly stops beating due to electrical impulse problems. Myocardial infarction increases the risk of SCD. Conditions associated with SCD include arrhythmogenic right ventricular dysplasia (ARVD), long QT syndrome, hypertrophic obstructive cardiomyopathy (HOCM) or Brugada syndrome.
Supraventricular tachycardia (SVT) is a rapid rhythm with atrial and/or ventricular rates of more than 100 beat per minute (bpm) at rest, which originate and are sustained in atrial or atrioventricular node tissue above the bundle of His. The condition is caused by reentry phenomena or automaticity at or above the atrioventricular node and includes atrioventricular (AV) nodal reentrant tachycardia, atrioventricular reciprocating and atrial tachycardia.
Syncope is a transient loss of consciousness and postural tone (ability to maintain or change position intentionally) due to insufficient cerebral perfusion. The loss of consciousness is associated with prompt recovery, not needing resuscitation.
Tachycardiomyopathy is an abnormality of systolic or diastolic function of the heart, or both, usually resulting in heart dilatation and advancing to heart failure caused by a high and/or irregular ventricular rate.
Thyrotoxicosis is a clinical state of inappropriately high levels of circulating thyroid hormones (T3 and/or T4) in the body, from any cause.
Tolerance is a condition that occurs when the body gets used to a medicine so that either more medicine is needed or different medicine is needed.
Treatment resistant refers to a disease or disorder that fails to respond positively or significantly to adequate intervention(s).
Ventricular arrhythmias are irregular heart rhythms that start in the heart's lower chambers, called the ventricles. They occur when abnormal electrical impulses cause the ventricles to twitch instead of pump blood.
Ventricular fibrillation (VF) also called V-fib, is a serious cardiac rhythm disorder in which disordered electrical activity causes the heart’s lower chambers (ventricles) to quiver or fibrillate, instead of contracting (beating) normally. This prohibits the heart from pumping blood, causing collapse and cardiac arrest. This type of arrhythmia is a life-threatening medical emergency.
Ventricular pre-excitation is a condition in which some or all of the ventricular muscle of the heart undergoes electrical activation (or depolarization) earlier, in relation to atrial events than would be expected, had the electrical impulses travelled normally by way of the atrioventricular (AV) conduction system.

Ventricular tachycardia (VT) is a rhythm disorder caused by abnormal electrical signals in the ventricles of the heart.

- **Monomorphic ventricular tachycardia** is ventricular tachycardia with stable QRS morphology.
- **Non-sustained ventricular tachycardia (NSVT)** is defined as 3 or more consecutive beats originating from the ventricle, lasting less than 30 seconds, at a rate more than 100 beats per minute (bpm).
- **Polymorphic ventricular tachycardia** is a ventricular rhythm, with a rate greater than 100 bpm with a varying QRS pattern that terminates spontaneously (causing syncope if lasting more than a few seconds) or will deteriorate into ventricular fibrillation, causing cardiac arrest.
- **Sustained ventricular tachycardia (SVT)** is defined as a ventricular rhythm more than 100 bpm (widened QRS complex with duration greater than 120 ms) lasting more than 30 seconds or requiring termination due to hemodynamic instability.

Wolff-Parkinson-White (WPW) is a congenital condition involving abnormal electrical conduction via an accessory pathway between the atria and the ventricles, which causes ventricular pre-excitation. The electrocardiogram (ECG) shows a short PR interval and a widened QRS with an initial delta wave, that reflects the accelerated ventricular contraction. WPW results in a predisposition to atrioventricular reentry tachycardia, atrial fibrillation and atrial flutter.

Cardiac Ablation References

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Disclaimer section

Purpose

The purpose of the HealthHelp's clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to safely improve outcomes. Medical information is constantly evolving, and HealthHelp reserves the right to review and update these clinical guidelines periodically. HealthHelp reserves the right to include in these guidelines the clinical indications as appropriate for the organization's program objectives. Therefore the guidelines are not a list of all the clinical indications for a stated procedure, and associated Procedure Code Tables may not represent all codes available for that state procedure or that are managed by a specific client-organization.

Clinician Review

These clinical guidelines neither preempt clinical judgment of trained professionals nor advise anyone on how to practice medicine. Healthcare professionals using these clinical guidelines are responsible for all clinical decisions based on their assessment. All Clinical Reviewers are instructed to apply clinical indications based on individual patient assessment and documentation, within the scope of their clinical license.

Payment

The use of these clinical guidelines does not provide authorization, certification, explanation of benefits, or guarantee of payment; nor do the guidelines substitute for, or constitute, medical

advice. Federal and State law, as well as member benefit contract language (including definitions and specific contract provisions/exclusions) take precedence over clinical guidelines and must be considered first when determining eligibility for coverage. All final determinations on coverage and payment are the responsibility of the health plan. Nothing contained within this document can be interpreted to mean otherwise.

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National and Local Coverage Determination (NCD and LCD)

NOTICE
To ensure appropriate review occurs to the most current NCD and/or LCD, always defer to https://www.cms.gov/medicare-coverage-database/search.aspx.

Background

National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) are payment policy documents outlined by the Centers for Medicare and Medicaid Services (CMS) and the government's delegated Medicare Audit Contractors (MACs) that operate regionally in jurisdictions.

CMS introduced variation between different jurisdictions/Medicare Audit Contractors (MACs) and their associated covered code lists with the transition to ICD 10. The variation resulted in jurisdictions independently defining how codes are applied for exclusions, limitations, groupings, ranges, etc. for the medical necessity indications outlined in the NCD and LCD. Due to this variation, there is an inconsistent use/application of codes and coverage determinations across the United States between the different MACs.

In addition, **WITHOUT** notice, CMS can change the codes that indicate medical necessity and the format of the coverage determinations/associated documents (eg, Articles). This is an additional challenge for organizations to keep up with ongoing, unplanned changes in covered codes and medical necessity indications.

Medical Necessity Codes

Due to the variation in code application between jurisdictions/MACs and that updates can happen without notification, HealthHelp is not able to guarantee full accuracy of the codes listed for any Coverage Determination, and advises that prior to use, the associated Coverage Determination Articles are reviewed to ensure applicability to HealthHelp's programs and any associated NCDs and LCDs.

For Internal Use Only:

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