HEALTHHELP®

A WNS COMPANY

2024 Cardiac Ablation Publication

Cardiology

CARD-CABL-BCBSSC

Last Review Date: 09/23/2024

Previous Review Date: 10/11/2023

Guideline Initiated: 06/30/2024

Table of Contents

BlueCross and BlueShield of South Carolina

IMPORTANT
To locate the appropriate updated Clinical Policies for BlueCross and BlueShield of South Carolina, please go to: https://www.southcarolinablues.com/web/public/brands/sc/providers/policies-and-authorizations/medical-policies/

TIP
A National Coverage Determination (NCD) or Local Coverage Determination (LCD) may be necessary to review for Medicare participants. Please go to: https://www.cms.gov/medicare-coverage-database/search.aspx for the latest coverage determination information.

Internal Use Only

11231 11235 11233 11238 11241 11234 11240 11474 11224 11229 11225 11226 11274 11269 11267 11268 11264 11263 11236 11237 11239 11242 11228 11646 11275 11262 11265 11266 11270

Cardiac Ablation

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. Continues for more than 7 days **OR** does **NOT** convert after more than 48 hours following electrical or pharmacological cardioversion, and **ANY** of the following:
            A. Antiarrhythmic medication(s) are **NOT** tolerated, there is a poor response **OR** long-term pharmacologic therapy is refused.
            B. Arrhythmia severely limits functional status/activities of daily living (eg, bathing, dressing, walking).

C. Ventricular response is controlled via accessory pathway.

ii. 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*.)

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

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

B. Paroxysmal

iv. Ventricular rate is rapid and uncontrolled **AND** refractory to rate control medications, **NOT** a candidate for rate control medications **OR** rhythm control **FAILED**.

b. Atrial flutter is persistent (lasts more than 48 hours), recurrent **AND** antiarrhythmic medication(s) are **NOT** tolerated, there is a poor response **OR** or long-term pharmacologic therapy is refused.

c. Atrial tachycardia (AT) is focal, recurrent and incessant **OR** causing tachycardiomyopathy.

d. Reentry tachycardia, bundle branch **OR** post-infarction, Purkinje fiber-mediated

e. Wolf-Parkinson-White (WPW), with <u>symptomatic</u> atrioventricular tachycardia and **ALL** of the following:

i. Antiarrhythmic medication(s) are **NOT** tolerated **OR** there is a poor response.

ii. Rapid ventricular response (RVR) via accessory pathway

iii. Recurrent break-through episodes are life altering.

References: [2] [8] [3] [4]

2. Cardiomyopathy and **ANY** of the following:

a. Arrythmogenic cardiomyopathy (ACM) with **ALL** of the following. (*__NOTE__: *Cardiac ablation for atrial flutter that is present following cardiac ablation for Afib should be deferred for at least 3 months*.)

i. Antiarrhythmic medication(s) are **NOT** tolerated, there is a poor response **OR** long-term pharmacologic therapy is refused.

ii. Left ventricular dysfunction (LVD) with recurrent atrial flutter

b. Arrhythmogenic right ventricular cardiomyopathy (ARVC) (***NOTE**: *Combined endocardial/epicardial approach as first-line therapy is reasonable.*)

c. 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 **UNACCEPTABLE**, based on comorbidities or advanced age.

References: [2] [12] [14] [9]

3. Electrophysiology study (EPS) resulted in rapid ventricular rate during evaluation for another arrhythmia.
References: [2] [11]

4. Implantable cardioverter defibrillator (ICD) is present **AND** sustained monomorphic ventricular tachycardia (VT) is **NOT** managed by device reprogramming **OR** additive drug therapy.
References: [2]

5. 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. Junctional tachycardia **AND** antiarrhythmic medication(s) are **NOT** tolerated **OR** there is a poor response.

c. Premature ventricular complex (PVC) and **ALL** of the following:

i. ACM is known (± left ventricular [LV] dysfunction)

ii. Drug therapy resistant

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

iv. High PVC burden (more than 15% or 15,000 PVCs/day)

v. Monomorphic

vi. Symptomatic (eg, increased awareness of the heartbeat, palpitations)

d. 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. Spontaneous tachyarrhythmia (or ECG abnormality) would limit functional status.

e. Ventricular tachycardia (VT) and **ANY** of the following:

i. Antiarrhythmic medication(s) are **NOT** tolerated, there is a poor response **OR** long-term pharmacologic therapy is refused.

ii. Fascicular, focal VT

iii. Monomorphic, recurrent and drug therapy is **NOT** tolerated **OR** there is a poor response.

iv. Polymorphic VT or ventricular fibrillation without reversible cause (eg, electrolyte disorder, medication, myocardial ischemia) and **ANY** of the following:

A. Antiarrhythmic medication(s) are **NOT** tolerated **OR** there is a poor response

B. PVC focus or substrate demonstrated (eg, ECG, EPS)

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

A. Acute cardiomyopathy (ACM)

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

C. SVT occurs in multiple episodes **AND** antiarrhythmic medication(s) are **NOT** tolerated **OR** there is a poor response.

vi. Symptomatic (eg, chest pain, dizziness, lightheadedness, palpitations, shortness of breath), recurrent and medication(s) are **NOT** tolerated, there was a poor response **OR** drug is refused.

References: [2] [1] [6] [5] [11][7][10] [3] [13] [14]

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

CODE	DESCRIPTION
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 2023 to 2024 had the following version changes:

- Added the following to keep in line with current evidence:
  - "Monomorphic VT" under "Ventricular arrhythmias"
  - "Ventricular rate" under "Atrial fibrillation"
- Citations updated per the evidence.

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 extra piece of heart muscle tissue that connects directly between the atria and the ventricles, bypassing the atrioventricular (AV) node altogether.
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.
Anticoagulation 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 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 nodal reentry tachycardia (AVNRT) is a cardiac rhythm disorder due to a functional (slow or fast pathway) reentry circuit in or around the atrioventricular (AV) node. The most common electrocardiogram (ECG) pattern is a narrow QRS complex tachycardia without visible P waves and with regular RR intervals. AVNRT is the most common type of paroxysmal supraventricular tachycardia.

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.

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.

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

Classifi-cation	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)

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.
Electrical cardioversion, also known as a cardioversion, is a procedure used to treat an abnormal and rapid heart rhythm (cardiac arrhythmia).
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.
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.
Hypertrophic cardiomyopathy (HCM) is any of several structural or functional diseases of heart muscle characterized by ventricular hypertrophy, especially of the left ventricle, which affects the interventricular septum more than the free ventricular wall, that may cause mitral insufficiency or obstructed left ventricle outflow, and that is symptomized chest pain, syncope and palpitations.

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.
Monomorphic is something that has a single structural pattern.
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.
Postinfarction is something that occurs after, and especially as a result of, a myocardial infarction (MI).
Premature ventricular complex (PVC) is an early ventricular depolarization with or without mechanical contraction.

- **Frequent PVC** is at least 1 PVC on a 12-lead ECG or more than 30 PVCs per hour.
- **Monomorphic PVC(s)** are felt to arise from the same focus. Slight changes in QRS morphology due to different exit sites from the same focus can be present.

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.
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.
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 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 nodal reentrant tachycardia, atrioventricular reciprocating and atrial tachycardia.

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 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

[1] Al-Khatib, S.M., Stevenson, W.G., . . . Page, R.L. (2018). 2017 AHA/ACC/HRS Guideline for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death. *Circulation, 138*(13), e272–e391.

[2] Andrade, J.G., Aguilar, M., . . . Macle, L. (2020). The 2020 Canadian Cardiovascular Society/ Canadian Heart Rhythm Society Comprehensive Guidelines for the Management of Atrial Fibrillation. *Canadian Journal of Cardiology, 36*(12), 1847-1948

[3] Brugada, J., Katritsis, D.G., . . . Zaza, A.. (2020). 2019 ESC Guidelines for the management of patients with supraventricular tachycardia: The Task Force for the management of patients with supraventricular tachycardia of the European Society of Cardiology (ESC). *European Heart Journal, 41*(5), 655-720.

[4] Calkins, H., Tomaselli, G.F. & Morady, F. (2022). Atrial Fibrillation: Clinical Features, Mechanisms, and Management. P. Libby & R.O. Bonow (Eds.). *Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine* (12), (pp. 1272-1287). Philadelphia, PA: Elsevier Inc.

[5] Chrispin, J., Misra, S., . . . Sinha, S.K. (2018). Current management and clinical outcomes for catheter ablation of atrioventricular nodal re-entrant tachycardia. *Europace, 20*(4), e51-e59.

[6] Cronin, E.M., Bogun, F.M., . . . Al-Khatib, S.M. (2020). 2019 HRS EHRA APHRS LAHRS expert consensus statement on catheter ablation of ventricular arrhythmias. *EP Europace, 22*(3), 450–495.

[7] Deyell, M.W., AbdelWahab, A., . . . Sapp, J.L. (2020). 2020 Canadian Cardiovascular Society/Canadian Heart Rhythm Society Position Statement on the Management of Ventricular Tachycardia and Fibrillation in Patients With Structural Heart Disease. *Canadian Journal of Cardiology, 36*(6), 822-836.

[8] Joglar, J.A., Chung, M.K., . . . Van Wagoner, D.R. (2024). 2023 ACC/AHA/ACCP/HRS Guideline for the Diagnosis and Management of Atrial Fibrillation. *Circulation, 83*(1), 110-278.

[9] Lebowitz, S., Kowalewski, M., . . . Pilato, M. (2022). Review of Contemporary Invasive Treatment Approaches and Critical Appraisal of Guidelines on Hypertrophic Obstructive Cardiomyopathy: State-of-the-Art Review. *Journal of Clinical Medicine, 11*(12), 3405.

[10] Marcus, G.M. (2020). Evaluation and Management of Premature Ventricular Complexes. *Circulation, 141*(17), 1407-1418.

[11] Miller, J.M. & Ellenbogen, K.A. (2022). Therapy for Cardiac Arrhythmias. P. Libby & R.O. Bonow (Eds.). *Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine* (12), (pp. 1208-1244). Philadelphia, PA: Elsevier.

[12] Ommen, S.R., Ho, C.Y., . . . Waldman, C.B. (2024). 2024 AHA/ACC/AMSSM/HRS/PACES/SCMR Guideline for the Management of Hypertrophic Cardiomyopathy. *Journal of the Americal College of Cardiology*, 1-82.

[13] Page, R.L., Joglar, J.A., . . .Al-Khatib, S.M. (2016). 2015 ACC/AHA/HRS guideline for the management of adult patients with supraventricular tachycardia: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society. *Circulation, 133*(14), e471-505.

[14] Towbin, J.A., McKenna, W.J., . . . Zareba, W. (2019). 2019 HRS expert consensus statement on evaluation, risk stratification, and management of arrhythmogenic cardiomyopathy. *Heart Rhythm, 16*(11), e301-e372.

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.

Registered Trademarks (®/™) and Copyright (©)

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:

11248 11249 11253 11282 11325 11328 11333 11349 11350 11351 11352 11354 11355 11356 11358 11359 11360 11361 11362 11365 11366 11367 11368 11369 11370 11374 11375 11394 11395 11396 11565