PriorityHealth

MEDICAL POLICY
No. 91314-R8

CATHETER ABLATION FOR CARDIAC ARRHYTHMIAS

Effective Date: April 23, 2008	**Review Dates: 1/93, 12/99, 12/01, 12/02, 2/03, 1/04, 3/04, 3/05, 2/06, 8/06, 2/07, 4/07, 4/08, 4/09, 4/10**
Date of Origin: November 12, 1992	**Status: Current**

I. DESCRIPTION

Atrial fibrillation (AF) is the most commonly diagnosed cardiac rhythm disturbance, with an incidence of 0.4% in the general population. AF occurs in a high percentage of patients with mitral valve (MV) disease, although it can also occur in individuals with no associated cardiac abnormalities. It is characterized by loss of normal sinoatrial electrical signal and rapid, fine, uncoordinated contraction of the atria.

Atrial fibrillation is associated with morbidity and mortality despite therapy with current antiarrhythmic drugs. Even the best available medical therapy only yields a 50-60 percent annual success rate in maintaining sinus rhythm. Side effects of these drugs can be problematic. Catheter ablation of arrhythmogenic foci can be performed using radiofrequency, microwave, cryotherapy or ultrasound technology. The Maze (or Cox-Maze) procedure is an open surgical ablative procedure for atrial fibrillation that can be done alone or in conjunction with valve repair or replacement. High-intensity focused ultrasound (HIFU), the Epicor™ system, may also be used for ablation in conjunction with other open heart procedures.

Initial experience with catheter ablation procedures based on a creation of linear lesions in both atria was disappointing but led to the key observation that focal triggers localized in the pulmonary veins were responsible for initiation of atrial fibrillation and are thus suitable targets for catheter ablation.

Electrical isolation of all four pulmonary veins from the left atrium provides the highest cure rates for atrial fibrillation. However, the procedure is operator dependent and is associated with a small but significant risk of pulmonary vein stenosis. Given the complexity and difficulties in ablating multiple pulmonary veins, **ablation of atrial fibrillation is not considered the initial treatment of choice or the standard of care for the treatment of atrial fibrillation.**

The optimal treatment method for patients who have idiopathic paroxysmal fibrillation appears to be left atrial catheter ablation as opposed to segmental ostial catheter ablation. Patients with chronic or persistent atrial fibrillation and patients with vago-tonic type of paroxysmal atrial fibrillation pulmonary vein isolation have a low success rate. In these subgroups and in patients with paroxysmal atrial fibrillation that does not respond to pulmonary vein isolation, an approach that

involves ablation within the left atrium, it is likely but not proven to yield better results.

Future Studies:

It is expected that with further advances in technology and simplification of techniques, radio frequency ablation of atrial fibrillation will become a widespread procedure. Methods to reduce the risk of pulmonary veins stenosis are under development. These technological developments primarily focus on design of the catheter tip, including diameter of the catheter tip and method for delivering ablative energy. Balloon-based, ultra-sound catheters using laser and cryoablation are currently being designed, as are circular catheters through which either radiofrequency or cryo lesions can be delivered.

II. POLICY/CRITERIA

A. Catheter ablation **is covered as primary therapy** for the following arrhythmias:

1. Idiopathic ventricular tachycardia (VT) with frequent PVCs
2. Wolfe-Parkinson-White (WPW) patients who have symptomatic tachycardia
3. Bundle branch block with re-entrant tachycardia
4. Atrial flutter
5. Paroxysmal Supraventricular Tachycardia (PSVT). For patients with documented PSVT by EKG, Holter monitor, etc., electrophysiology (EP) study may be required to demonstrate the specific diagnosis. Priority Health will cover EP studies and ablation if EP testing indicates one of the following three common PSVT diagnoses:
   a. Atrioventricular nodal reentrant tachycardia (AVNRT)
   b. Atrioventricular reentrant tachycardia (AVRT)
   c. Focal atrial tachycardia

B. Catheter ablation **is covered as secondary therapy** for the following arrhythmias:

1. Atrial fibrillation, or
2. Non-ischemic or ischemic ventricular tachycardia (VT): for patients with chronic, recurrent VT undergoing ablation of an identifiable focus
3. Inappropriate sinus tachycardia

AND one of the following:

1. Drug refractory, symptomatic patient, ***or***
2. Intolerable side effects to anti-arrhythmic drugs, ***or***
3. Contraindications to anticoagulation

C. Catheter ablation of ventricular arrhythmogenic foci is covered after ICD placement when either of the following conditions is met:
   1. Failure of ICD defined as ICD-resistant ventricular arrhythmias, or
   2. Excessively frequent ICD-terminated arrhythmias resistant to re-institution of maximal doses of anti-arrhythmic medications.

D. High-intensity focused ultrasound (HIFU), the Epicor™ system as a stand-alone ablative procedure for atrial fibrillation is considered investigational and is not a covered benefit. The Epicor™ procedure was reviewed by Priority Health's Technology Assessment Committee in June 2006 and this policy reflects the recommendations of the committee.

III. MEDICAL NECESSITY REVIEW

☒ Required ☐ Not Required ☐ Not Applicable

IV. APPLICATION TO PRODUCTS

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- **HMO/EPO:** ***This policy applies to insured HMO/EPO plans.***
- **POS:** ***This policy applies to insured POS plans.***
- **PPO:** ***This policy applies to insured PPO plans.***
- **ASO:** ***For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.***
- **INDIVIDUAL:** ***For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.***
- **MEDICARE:** ***Coverage is determined by the Centers for Medicare and Medicaid Services (CMS).***
- **MEDICAID:** ***If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual and the Michigan Medicaid Fee Schedule, the Michigan Medicaid Provider Manual and the Michigan Medicaid Fee Schedule at:*** *http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42543_42546_42551-159815--,00.html* ***will govern.***
- **MICHILD:** ***For MICHILD members, this policy will apply unless MICHILD certificate of coverage limits or extends coverage.***

V. CODING INFORMATION

ICD-9 Codes that may support medical necessity
These Diagnoses may support medical necessity:
426.10 Atrioventricular block, unspecified

426.11 First degree atrioventricular block
426.12 Mobitz (type) II atrioventricular block
426.13 Other second degree atrioventricular block
426.2 Left bundle branch hemiblock
426.3 Other left bundle branch block
426.4 Right bundle branch block
426.50 Bundle branch block, unspecified
426.51 Right bundle branch block and left posterior fascicular block
426.52 Right bundle branch block and left anterior fascicular block
426.53 Other bilateral bundle branch block
426.54 Trifascicular block
426.6 Other heart block
426.7 Anomalous atrioventricular excitation (Wolff Parkinson-White)
426.81 Lown-Ganong-Levine syndrome

427.0 Paroxysmal supraventricular tachycardia
427.1 Paroxysmal ventricular tachycardia
427.2 Unspecified paroxysmal tachycardia
427.31 Atrial fibrillation
427.32 Atrial flutter
427.41 Ventricular fibrillation
427.42 Ventricular flutter
427.5 Cardiac arrest
427.61 Supraventricular premature beats
427.81 Sinoatrial node dysfunction
427.89 Other specified cardiac dysrhythmias
427.9 Cardiac dysrhythmia, unspecified

780.2 Syncope and collapse

CPT/HCPCS Codes

93650 Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement
93651 Intracardiac catheter ablation of arrhythmogenic focus; for treatment of supraventricular tachycardia by ablation of fast or slow atrioventricular pathways, accessory atrioventricular connections or other atrial foci, singly or in combination
93652 Intracardiac catheter ablation of arrhythmogenic focus; for treatment of ventricular tachycardia

VI. REFERENCES

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