

## Automatic External Defibrillators

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### Acronyms Key

Electrophysiologic study	EP
Left ventricular ejection fraction	LVEF
Myocardial infarction	MI
Sudden cardiac death	SCD
Ventricular fibrillation	VF
Ventricular tachycardia	VT

### Guideline

Automatic external defibrillators are covered for members with the DME benefit who are at high risk for SCD due to one of the conditions described under Section I or II. It is expected that the ordering physician be experienced in the management of patients at risk for SCD.

#### I. **Wearable defibrillator; one of the criteria must be met:**

1. Documented VF episode or a sustained VT (> 30 seconds). These dysrhythmias may be either spontaneous or induced during an EP study, but may not be due to a transient or reversible cause nor occur during the first 48 hours of an MI
2. Familial or inherited conditions with a high risk of life-threatening VT (i.e., long QT syndrome or hypertrophic cardiomyopathy)
3. Either documented prior MI or dilated cardiomyopathy and a measured LVEF  $\leq$  35%
4. Members that satisfy requirements for an ICD, but have a temporary contraindication or are awaiting heart transplantation

5. A previously implanted cardioverter defibrillator (ICD) now requires explantation (e.g. ICD system defect or infection caused by ICD)

**II. Nonwearable defibrillator; both criteria 1 and 2 must be met:**

1. The member has one of the following conditions:

- A documented episode of cardiac arrest due to VF, not due to a transient or reversible cause
- A sustained VT (> 30 seconds) either spontaneous or induced during an EP study, not associated with acute MI and not due to a transient or reversible cause
- Familial or inherited conditions with a high risk of life-threatening VT (i.e., long QT syndrome or hypertrophic cardiomyopathy)
- Coronary artery disease with a documented prior MI, measured LVEF  $\leq$  35% and inducible, sustained VT or VF during an EP study. To meet this criterion, **both** of the following must apply:
  - The MI must have occurred > 4 weeks prior to the external defibrillator prescription
  - The EP test must have been performed > 4 weeks after the qualifying MI
- Documented prior MI and a measured LVEF  $\leq$  30%. Members must not have any of the following:
  - Cardiogenic shock or symptomatic hypotension while in a stable baseline rhythm
  - Coronary artery bypass graft or percutaneous transluminal coronary angioplasty within the past 3 months
  - Enzyme-positive MI within 40 day
  - Clinical symptoms or findings that would make them candidates for coronary revascularization
  - Irreversible brain damage from pre-existing cerebral disease
  - Any disease other than cardiac disease (i.e., cancer, uremia, liver failure) associated with a likelihood of survival < 1 year
- Ischemic dilated cardiomyopathy, documented MI, New York Heart Association (NYHA) Class II and III heart failure and measured LVEF  $\leq$  35%
- Nonischemic dilated cardiomyopathy for > 3 months, NYHA Class II and III heart failure and measured LVEF  $\leq$  35%
- One of the previous criteria in this section and NYHA Class IV heart failure.

**OR**

2. Implantation surgery is contraindicated.

**OR**

3. A previously implanted ICD now requires explantation (e.g. ICD system defect or infection caused by ICD).

### Applicable Procedure Codes

93292	Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; wearable defibrillator system
93745	Initial set-up and programming by a physician or other qualified health care professional of wearable cardioverter-defibrillator includes initial programming of system, establishing baseline electronic ECG, transmission of data to data repository, patient instruction in wearing system and patient reporting of problems or events
K0606	Automatic external defibrillator with integrated electrocardiogram analysis, garment type
K0607	Replacement battery for automated external defibrillator, garment type only, each
K0608	Replacement garment for use with automated external defibrillator, each
K0609	Replacement electrodes for use with automated external defibrillator, garment type only, each
E0617	External defibrillator with integrated electrocardiogram analysis

### Applicable ICD-10 Diagnosis Codes

A18.84	Tuberculosis of heart
I21.A1	Myocardial infarction type 2
I21.A9	Other myocardial infarction type
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery
I21.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery
I21.29	ST elevation (STEMI) myocardial infarction involving other sites
I21.3	ST elevation (STEMI) myocardial infarction of unspecified site
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I21.9	Acute myocardial infarction, unspecified
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site
I25.2	Old myocardial infarction
I42.0	Dilated cardiomyopathy
I42.1	Obstructive hypertrophic cardiomyopathy
I42.2	Other hypertrophic cardiomyopathy
I42.3	Endomyocardial (eosinophilic) disease

I42.4	Endocardial fibroelastosis
I42.5	Other restrictive cardiomyopathy
I42.6	Alcoholic cardiomyopathy
I42.7	Cardiomyopathy due to drug and external agent
I42.8	Other cardiomyopathies
I42.9	Cardiomyopathy, unspecified
I43	Cardiomyopathy in diseases classified elsewhere
I45.81	Long QT syndrome
I46.2	Cardiac arrest due to underlying cardiac condition
I46.8	Cardiac arrest due to other underlying condition
I46.9	Cardiac arrest, cause unspecified
I47.0	Re-entry ventricular arrhythmia
I47.1	Supraventricular tachycardia
I47.2	Ventricular tachycardia
I47.9	Paroxysmal tachycardia, unspecified
I49.01	Ventricular fibrillation
I49.02	Ventricular flutter
I49.2	Junctional premature depolarization
I50.1	Left ventricular failure, unspecified
I50.20	Unspecified systolic (congestive) heart failure
I50.21	Acute systolic (congestive) heart failure
I50.22	Chronic systolic (congestive) heart failure
I50.23	Acute on chronic systolic (congestive) heart failure
I50.30	Unspecified diastolic (congestive) heart failure
I50.31	Acute diastolic (congestive) heart failure
I50.32	Chronic diastolic (congestive) heart failure
I50.33	Acute on chronic diastolic (congestive) heart failure
I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.810	Right heart failure, unspecified
I50.811	Acute right heart failure
I50.812	Chronic right heart failure
I50.813	Acute on chronic right heart failure
I50.814	Right heart failure due to left heart failure

I50.82	Biventricular heart failure
I50.83	High output heart failure
I50.84	End stage heart failure
I50.89	Other heart failure
I50.9	Heart failure, unspecified
I51.7	Cardiomegaly
T82.110A	Breakdown (mechanical) of cardiac electrode, initial encounter
T82.111A	Breakdown (mechanical) of cardiac pulse generator (battery), initial encounter
T82.118A	Breakdown (mechanical) of other cardiac electronic device, initial encounter
T82.119A	Breakdown (mechanical) of unspecified cardiac electronic device, initial encounter
T82.120A	Displacement of cardiac electrode, initial encounter
T82.121A	Displacement of cardiac pulse generator (battery), initial encounter
T82.128A	Displacement of other cardiac electronic device, initial encounter
T82.129A	Displacement of unspecified cardiac electronic device, initial encounter
T82.190A	Other mechanical complication of cardiac electrode, initial encounter
T82.191A	Other mechanical complication of cardiac pulse generator (battery), initial encounter
T82.198A	Other mechanical complication of other cardiac electronic device, initial encounter
T82.199A	Other mechanical complication of unspecified cardiac device, initial encounter
T82.6XXA	Infection and inflammatory reaction due to cardiac valve prosthesis, initial encounter
T82.7XXA	Infection and inflammatory reaction due to other cardiac and vascular devices, implants and grafts, initial encounter

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