Medical Policy

Automatic External Defibrillator

Description

An automatic external defibrillator (AED) is capable of monitoring cardiac rhythms, detecting dysrhythmias and delivering a shock to the heart when appropriate without user decision making.

Policy

An automatic external defibrillator (AED) is considered **reasonable and necessary** when a member meets coverage criteria.

Policy Guidelines

Coverage Criteria:

1. Must be ordered by the Member's treating practitioner.
2. Automatic external defibrillators are covered for Members at high risk for sudden cardiac death (SCD) due to one of the conditions described under (a) or (b). It is expected the treating practitioner be experienced in the management of Members at risk for SCD.

    a. A wearable defibrillator (K0606) is covered for Members if they meet one of the criteria (i-iv), described below,
        i. A documented episode of ventricular fibrillation or a sustained, lasting 30 seconds or longer, ventricular tachyarrhythmia. These dysrhythmias may be either spontaneous or induced during an electrophysiologic (EP) study, but may not be due to a transient or reversible cause and not occur during the first 48 hours of an acute myocardial infarction; or
        ii. Familial or inherited conditions with a high risk of life-threatening ventricular tachyarrhythmia such as long QT syndrome or hypertrophic cardiomyopathy; or
        iii. Either documented prior myocardial infarction or dilated cardiomyopathy and a measured left ventricular ejection fraction less than or equal to 0.35; or
        iv. A previously implanted defibrillator now requires explantation.

Reference Diagnosis Codes that Support Medical Necessity section for applicable diagnoses.

b. A **non-wearable** automatic defibrillator (E0617) is covered for Members in two circumstances. They meet either (1) both criteria (i) and (ii) or (2) criteria (iii), described below,
    i. The Member has one of the following conditions (1-8),
        1. A documented episode of cardiac arrest due to ventricular fibrillation, not due to a transient or reversible cause.
        2. A sustained, lasting 30 seconds or longer, ventricular tachyarrhythmia, either spontaneous or induced during an electrophysiologic (EP) study, not associated with acute myocardial infarction, and not due to a transient or reversible cause.
        3. Familial or inherited conditions with a high risk of life-threatening ventricular tachyarrythmias such as long QT syndrome or hypertrophic cardiomyopathy.
        4. Coronary artery disease with a documented prior myocardial infarction, with a measured left ventricular ejection fraction less than or equal to 0.35, and inducible, sustained ventricular tachycardia (VT) or ventricular fibrillation (VF) during an EP study. To meet this criterion;
            a. The myocardial infarction must have occurred more than 4 weeks prior to the external defibrillator prescription/standard written order (SWO); and,
            b. The EP test must have been performed more than 4 weeks after the qualifying myocardial infarction.
        5. Documented prior myocardial infarction and a measured left ventricular ejection fraction less than or equal to 0.30. Members must not have:
            a. Cardiogenic shock or symptomatic hypotension while in a stable baseline rhythm; or
            b. Had a coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) within past 3 months; or
            c. Had an enzyme-positive MI within past month; or

d. Clinical symptoms or findings that would make them a candidate for coronary revascularization; or
e. Irreversible brain damage from preexisting cerebral disease; or
f. Any disease, other than cardiac disease (e.g., cancer, uremia, liver failure), associated with a likelihood of survival less than one year.

6. Members with ischemic dilated cardiomyopathy (IDCM), documented prior myocardial infarction (MI), New York Heart Association (NYHA) Class II and III heart failure, and measured left ventricular ejection fraction (LVEF) ≤ 35%.
7. Members with nonischemic dilated cardiomyopathy (NIDCM) > 3 months, NYHA Class II and III heart failure, and measured LVEF ≤ 35%.
8. Members who meet one of the previous criteria (1-7) and have NYHA Class IV heart failure.

ii. Implantation surgery is contraindicated.
iii. A previously implanted defibrillator now requires explantation.

Reference Diagnosis Codes that Support Medical Necessity section for applicable diagnoses.

Limitations:

1. Claims for defibrillators for other indications will be denied as not reasonable and necessary.
2. Repair of a vest cardioverter is limited to restoration of a serviceable condition which is not the result of misuse, non-intentional or intentional.
3. The replacement of a patient-owned vest cardioverter is covered if any of the following criteria is met:
    a. When necessitated by irreparable damage not due to misuse, intentional or non-intentional.
    b. The cost of repairs would exceed the purchase price.

Exclusions:

1. The efficacy of the devices has not been proven when used for diagnoses other than those listed below and will not be covered.

Automatic External Defibrillator

ICD-10 Codes that Support Medical Necessity
For HCPCS Procedure Code E0617
Group 1 Codes

ICD-10 Code	Description
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.B	Myocardial infarction with coronary microvascular dysfunction
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
I42.1	Obstructive hypertrophic cardiomyopathy
I42.2	Other hypertrophic cardiomyopathy
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
I47.20	Ventricular tachycardia, unspecified
I47.21	Torsades de pointes
I47.29	Other ventricular tachycardia
I49.01	Ventricular fibrillation
I49.02	Ventricular flutter
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

ICD-10 Codes that Support Medical Necessity
For HCPCS Procedure Code K0606-K0609
Group 2 Codes

ICD-10 Code	Description
A18.84	Tuberculosis of heart
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.B	Myocardial infarction with coronary microvascular dysfunction
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
I47.20	Ventricular tachycardia, unspecified

I47.21	Torsades de pointes
I47.29	Other ventricular tachycardia
I49.01	Ventricular fibrillation
I49.02	Ventricular flutter
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

HCPCS Level II Codes and Description

A9999	MISCELLANEOUS DME SUPPLY OR ACCESSORY, NOT OTHERWISE SPECIFIED
E0617	EXTERNAL DEFIBRILLATOR WITH INTEGRATED ELECTROCARDIOGRAM ANALYSIS
E1399	DURABLE MEDICAL EQUIPMENT, MISCELLANEOUS
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

Definitions

1. Myocardial infarctions are defined by elevated cardiac enzymes or Q-waves on an electrocardiogram.
2. Ejection fractions must be measured by angiography, radionuclide scanning, or echocardiography.
3. Transient or reversible causes include conditions such as drug toxicity, severe hypoxia, acidosis, hypokalemia, hypercalcemia, hyperkalemia, systemic infections, and myocarditis (not all-inclusive).

Documentation Requirements

Items in this policy may be subject to the Affordable Care Act (ACA) 6407 requirements.

The Affordable Care Act (ACA) 6407 requires that the treating prescriber conduct a face-to-face examination during the six month period preceding the written order. The documentation must be received by the provider prior to delivery for certain DME items. The documentation must describe a medical condition for which the DME is being prescribed.

Coding Guidelines

1. Automatic defibrillators are devices that are capable of monitoring cardiac rhythms, detecting dysrhythmias, and delivering a defibrillation shock to the heart when appropriate without any user decision-making.
2. Non-wearable, automatic external defibrillators with integrated electrocardiogram capability are coded using HCPCS code E0617.
3. Wearable, automatic, external defibrillators with integrated electrocardiogram analysis are coded using HCPCS code K0606.
4. Other types of defibrillators are coded as A9270. No separate payment is made for carrying cases or mounting hardware.

5. Replacement supplies and accessories for use with K0606 are coded using K0607 – K0609 as appropriate.
6. Replacement supplies and accessories for use with K0617 are coded using A9999.

HCPCS MODIFIERS (If Applicable):

EY- No physician or other health care provider order for this item or service

GA – Waiver of liability statement on file

GZ – Item or service expected to be denied as not reasonable and necessary.

KX – Requirements specified in the medical policy have been met

KX, GA, GZ Modifiers:

Suppliers must add a KX modifier to a code only if all of the criteria in the Indications and Limitations of Coverage and/or Medical Necessity section of this policy have been met.

Important Note:

Northwood's Medical Policies are developed to assist Northwood in administering plan benefits and determining whether a particular DMEPOS product or service is reasonable and necessary. Equipment that is used primarily and customarily for a non-medical purpose is not considered durable medical equipment.

Coverage determinations are made on a case-by-case basis and are subject to all of the terms, conditions, limitations, and exclusions of the member's contract including medical necessity requirements.

The conclusion that a DMEPOS product or service is reasonable and necessary does not constitute coverage. The member's contract defines which DMEPOS product or service is covered, excluded or limited. The policies provide for clearly written, reasonable and current criteria that have been approved by Northwood's Medical Director.

The clinical criteria and medical policies provide guidelines for determining the medical necessity for specific DMEPOS products or services. In all cases, final benefit determinations are based on the applicable contract language. To the extent there are any conflicts between medical policy guidelines and applicable contract language, the

contract language prevails. Medical policy is not intended to override the policy that defines the member's benefits, nor is it intended to dictate to providers how to direct care. Northwood Medical policies shall not be interpreted to limit the benefits afforded to Medicare or Medicaid members by law and regulation.

Northwood's policies do not constitute medical advice. Northwood does not provide or recommend treatment to members. Members should consult with their treating practitioner in connection with diagnosis and treatment decisions.

Northwood follows all CMS National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), as applicable.

References

Centers for Medicare and Medicaid Services, Medicare Coverage Database, National Coverage Documents.

CGS Administrators, LLC. Automatic External Defibrillators. Local Coverage Determination No. L33690. Durable Medical Equipment Medicare Administrative Carrier Jurisdiction B; Last accessed/reviewed November 5, 2024.

Noridian Healthcare Solutions, Automatic External Defibrillators. Local Coverage Determination No. L33690. Durable Medical Equipment Medicare Administrative Carrier Jurisdiction A. Chico, CA: NHIC; revised January 1, 2017; reviewed November 2017.

Change/Authorization History

Revision Number	Date	Description of Change	Prepared / Reviewed by	Approved by	Review Date:	Effective Date:
A	11-20-06	Initial Release	Rosanne Brugnoni	Ken Fasse	n/a	
01	08-2007	Added ICD-9 412.0	Rosanne Brugnoni	Ken Fasse		
02	12-2008	Added definition for ICD-9 412.0	Susan Glomb	Ken Fasse		
03	09-01-09	HCPCS MODIFIERS: Added GA and GZ modifiers. Revised KX modifier.	Susan Glomb	Ken Fasse		

		Added instructions for use of GA and GZ modifiers. SADMERC changed to PDAC				
04	12-04-09	Annual review. No changes.	Susan Glomb	Ken Fasse		
05	11-19-10	Annual review. No changes	Susan Glomb	Ken Fasse		
06	07-19-11	Added Important Notes to the policy	Susan Glomb	Dr. Almasri		
07	11-7-11	Annual Review. Added References to Policy	Susan Glomb	Dr. Almasri		
08	04-03-12	Added reference to NH Medicaid	Susan Glomb	Dr. Almasri		
09	11-27-12	Annual Review. No changes	Susan Glomb	Dr. B. Almasri		
10	12-18-13	Annual review. No changes	Susan Glomb	Dr. B. Almasri		
11	12-4-14	Annual Review. Added: Items in this policy may be subject to Affordable Care Act (ACA) 6407 requirements.	Susan Glomb	Dr. B. Almasri		
12	11-30-15	Annual Review. Updated policy with applicable ICD-10 codes and Medicare references.	Lisa Wojno	Dr. B. Almasri	November 2015	
13	11-18-16	Annual Review. No Changes.	Lisa Wojno	Dr. B. Almasri	November 2016	
14	11-10-17	Annual Review. Updated DME MAC references.	Lisa Wojno	Dr. C. Lerchin	November 2017	
15	11-09-18	Annual Review. No Changes.	Lisa Wojno	Dr. C. Lerchin	November 2018	
16	11-05-19	Annual Review. No Changes.	Lisa Wojno	Dr. C. Lerchin	November 2019	November 2019
17	11-04-20	Annual review. Per Medicare: replaced	Carol Dimech	Dr. C. Lerchin	11-04-20	

		"Covered" with "ICD-10 Codes that Support Medical Necessity", revised: "ordering physician" to "treating practitioner", added "prescription/standard written order" (SWO)".				11-04-20
18	11-01-21	Annual review. No changes	Carol Dimech/Susan Glomb	Dr. C. Lerchin	11-01-21	
19	11-8-21	Added NCD, LCD verbiage to "Important Note".	Carol Dimech	Dr. C. Lerchin	11-8-21	
20	11-17-22	Annual review. Removed: ICD-10 code I47.2 from Group 1 and Group 2 Codes due to ICD-10 code updates. Added: ICD-10 codes I47.20, I47.21 and I47.29 to Group 1 and Group 2 Codes due to ICD-10 code updates.	Carol Dimech	Dr. C. Lerchin	11-17-22	10-01-22
21	11-1-23	Annual review. Added ICD-10 code I21.B to group 1 and 2 codes per CMS.	Carol Dimech	Dr. C. Lerchin	11-1-23	11-1-23
22	11-5-24	Annual review. No changes.	Carol Dimech	Dr. C. Lerchin	11-5-24	11-5-24