

National Coverage Determination (NCD)

Microvolt T-Wave Alternans (MTWA)

20.30

Links in PDF documents are not guaranteed to work. To follow a web link, please use the MCD Website.

Tracking Information

Publication Number

100-3

Manual Section Number

20.30

Manual Section Title

Microvolt T-Wave Alternans (MTWA)

Version Number

2

Effective Date of this Version

05/12/2008

Ending Effective Date of this Version

01/13/2015

Implementation Date

08/25/2008

Description Information

Benefit Category

Diagnostic Tests (other)

Please Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.

Item/Service Description

A. General

Microvolt T-wave Alternans (MTWA) testing is a non-invasive diagnostic test that detects minute electrical activity in a portion of the electrocardiogram (EKG) known as the T-wave. MTWA testing has a role in the risk stratification of patients who may be at risk for sudden cardiac death (SCD) from ventricular arrhythmias.

Within patient groups that may be considered candidates for implantable cardioverter defibrillator (ICD) therapy, a negative MTWA test may be useful in identifying low-risk patients who are unlikely to benefit from, and who may experience worse outcomes from ICD placement.

The test is performed by placing highly sensitive electrodes on a patient's chest prior to a period of controlled exercise. These electrodes detect tiny beat-to-beat changes, on the order of one-millionth of volt, in the EKG T-wave. Spectral analysis is used to calculate these minute voltage changes. Spectral analysis is a sensitive mathematical method of measuring and comparing time and the EKG signals. Software then analyzes these microvolt changes and produces a report to be interpreted by a physician.

Indications and Limitations of Coverage

B. Nationally Covered Indications

Microvolt T-wave Alternans diagnostic testing is covered for the evaluation of patients at risk for SCD, only when the spectral analysis method is used.

C. Nationally Non-Covered Indications

Microvolt T-wave Alternans diagnostic test is non-covered for the evaluation of patients at risk for SCD if measurement is not performed employing the spectral analysis.

D. Other

N/A

(This NCD last reviewed May 2008.)

Claims Processing Instructions

TN 3265 (Medicare Claims Processing) [↗](#)

Transmittal Information



Transmittal Number


88


Coverage Transmittal Link

<https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/Downloads/R88NCD.pdf> 

Revision History




03/2013 - CMS translated the information for this policy from ICD-9-CM/PCS to ICD-10-CM/PCS according to HIPAA standard medical data code set requirements and updated any necessary and related coding infrastructure. These updates do not expand, restrict, or alter existing coverage policy. Implementation date: 10/07/2013 Effective date: 10/1/2015. ([TN 1199](#) ) ([TN 1199](#) ) (CR 8197)

07/2008 - Effective Date: 05/12/2008. Implementation Date: 08/25/2008. ([TN 88](#) ) (CR6154)

03/2006 - Effective Date: 03/21/2006. Implementation Date: 04/03/2006. ([TN 49](#) ) (CR4351)


National Coverage Analyses (NCAs)


This NCD has been or is currently being reviewed under the National Coverage Determination process. The following are existing associations with NCAs, from the National Coverage Analyses database.

- [Original Consideration for Microvolt T-wave Alternans \(CAG-00293N\)](#) 
- [First reconsideration for Microvolt T-wave Alternans \(CAG-00293R\)](#) 
- [Second reconsideration for Microvolt T-wave Alternans \(CAG-00293R2\)](#) 

Additional Information

Other Versions

Title	Version	Effective Between	
Microvolt T-Wave Alternans (MTWA)	3	01/13/2015 - N/A	View
Microvolt T-Wave Alternans (MTWA)	2	05/12/2008 - 01/13/2015	You are here

Title	Version	Effective Between	
Microvolt T-Wave Alternans (MTWA)	1	03/21/2006 - 05/12/2008	View