

# CMS Manual System

## Pub 100-03 Medicare National Coverage Determinations

Transmittal 49

Department of Health &  
Human Services (DHHS)

Centers for Medicare &  
Medicaid Services (CMS)

Date: MARCH 24, 2006

Change Request 4351

**SUBJECT: Microvolt T-Wave Alternans (MTWA) Diagnostic Testing**

**I. SUMMARY OF CHANGES:** Effective for dates of service on or after March 21, 2006, MTWA diagnostic testing is covered for the evaluation of patients at risk of sudden cardiac death, only when the spectral analysis method is used. Prior to this CR, MTWA was covered based on contractor discretion. This addition of section 20.30 of Pub. 100-03 is a National Coverage Determination (NCD) made under section 1862(a)(1) of the Social Security Act. NCDs are binding on all carriers, fiscal intermediaries, quality improvement organizations, health maintenance organizations, competitive medical plans, health care prepayment plans, the Medicare Appeals Council, and administrative law judges (see 42 CFR section 405.1064, effective May 1, 2005). An NCD that expands coverage is also binding on a Medicare advantage organization. In addition, an administrative law judge may not review an NCD. (See section 1869(f)(1)(A)(i) of the Social Security Act.)

### NEW/REVISED MATERIAL

**EFFECTIVE DATE: March 21, 2006**

**IMPLEMENTATION DATE: April 3, 2006**

*Disclaimer for manual changes only: The revision date and transmittal number apply only to red italicized material. Any other material was previously published and remains unchanged. However, if this revision contains a table of contents, you will receive the new/revised information only, and not the entire table of contents.*

### II. CHANGES IN MANUAL INSTRUCTIONS:

**R = REVISED, N = NEW, D = DELETED**

R/N/D	CHAPTER / SECTION / SUBSECTION / TITLE
R	1/Table of Contents
N	1/20.30/Microvolt T-Wave Alternans (MTWA) (Effective March 21, 2006)

**III. FUNDING:**

**No additional funding will be provided by CMS; contractor activities are to be carried out within their FY 2006 operating budgets.**

**IV. ATTACHMENTS:**

Manual Instruction

*\*Unless otherwise specified, the effective date is the date of service.*

# Medicare National Coverage Determinations Manual

## Chapter 1, Part 1 (Sections 10 – 80.12) Coverage Determinations

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### Table of Contents *(Rev.49, 03-24-06)*

*20.30 - Microvolt T-Wave Alternans (MTWA) (Effective March 21, 2006)*

**20.30 - Microvolt T-Wave Alternans (MTWA) (Effective March 21, 2006)  
(Rev. 49, Issued: 03-24-06, Effective: 03-21-06, Implementation: 04-03-06)**

**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.*

**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 testing is non-covered for the evaluation of patients at risk for SCD if measurement is not performed employing the spectral analysis method.*

**D. Other**

*N/A*

*(This NCD last reviewed March 2006.)*