Cardio Policy:

Microvolt T-Wave Alternans

POLICY NUMBER UM CARDIO_1158	SUBJECT Microvolt T-Wave Alternans		DEPT/PROGRAM UM Dept	PAGE 1 OF 2
DATES COMMITTEE REVIEWED 08/03/11, 01/09/13, 08/22/13, 06/30/14, 08/12/15, 11/28/16, 12/21/16, 10/10/17, 03/08/19, 05/08/19, 12/11/19, 05/13/20, 05/28/21, 07/13/22, 07/18/23, 12/20/23	APPROVAL DATE December 20, 2023	EFFECTIVE DATE December 22, 2023	COMMITTEE APPROVAL DATES 08/03/11, 01/09/13, 08/22/13, 06/30/14, 08/12/15, 11/28/16, 12/21/16, 10/10/17, 03/08/19, 05/08/19, 12/11/19, 05/13/20, 05/28/21, 07/13/22, 07/18/23, 12/20/23	
PRIMARY BUSINESS OWNER: UM		COMMITTEE/BOARD APPROVAL Utilization Management Committee		
NCQA STANDARDS UM 2		ADDITIONAL AREAS OF IMPACT		
CMS REQUIREMENTS	STATE/FEDERAL REQUIREMENTS		APPLICABLE LINES OF BUSINESS Commercial, Exchange, Medicaid	

I. PURPOSE

Indications for determining medical necessity for Microvolt T-Wave Alternans testing.

II. DEFINITIONS

Microvolt T-wave Alternans (MTWA) testing is a non-invasive diagnostic test that detects minute electrical activity in a portion of the electrocardiogram (ECG) known as the T-wave. MTWA testing has a role in the stratification of patients who may be at risk for sudden cardiac death (SCD) from ventricular arrhythmias. This is done by Spectral analysis (SA) which is a sensitive mathematical method of measuring and comparing time and the ECG signals. It requires specialized propriety electrodes to calculate minute T-wave voltage changes.

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.

An appropriate diagnostic or therapeutic procedure is one in which the expected clinical benefit exceeds the risks or negative consequences of the procedure by a sufficiently wide margin such that the procedure is generally considered acceptable or reasonable care. The ultimate objective of AUC is to improve patient care and health outcomes in a cost–effective manner but is not intended to ignore ambiguity and nuance intrinsic to clinical decision making.

Appropriate Care- Median Score 7-9

May be Appropriate Care- Median Score 4-6

Rarely Appropriate Care- Median Score 1-3

III. POLICY

Indications for approving a request for medical necessity are:

A. It is reasonable to use T wave Alternans to improve the diagnosis and risk stratification of patients with ventricular arrhythmias or who are risk for developing life threatening ventricular arrhythmias. **(AUC Score 6)**[1,2,3]

Limitations:

T-wave Alternans cannot be used to guide selection of therapy.

IV. PROCEDURE

A. In order to review a request for medical necessity, the following items must be submitted for review:
   1. Progress note that prompted request
   2. Most recent EKG (within 10 days)
   3. Most recent Echocardiogram and/or cardiac cath report

B. Primary codes appropriate for this service: 93025

V. APPROVAL AUTHORITY

A. Review – Utilization Management Department

B. Final Approval – Utilization Management Committee

VI. ATTACHMENTS

A. None

VII. REFERENCES

1. Centers for Medicare and Medicaid Services. National Coverage Determination (NCD) (20.30). Microvolt T-Wave Alternans (MTWA). Retrieved from https://www.cms.gov [Accessed December 19, 2023].
2. Goldberger JJ, et al. American Heart Association/American College of Cardiology Foundation/Heart Rhythm Society scientific statement on noninvasive risk stratification techniques for identifying patients at risk for sudden cardiac death: a scientific statement from the American Heart Association Council on Clinical Cardiology Committee on Electrocardiography and Arrhythmias and Council on Epidemiology and Prevention. Circulation. Sept 2008, Volume 118, Issue 14, Pages 1497-1518.
3. Zipes DP, et al. ACC/AHA/ESC 2006 guidelines for management of patients with ventricular arrhythmias and the prevention of sudden cardiac death: a report of the American College of Cardiology/American Heart Association Task Force and the European Society of Cardiology Committee for Practice Guidelines (Writing Committee to Develop Guidelines for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death). Journal of the American College of Cardiology. Sept 2006. Volume 48, Issue 5, Pages e247-346.
4. NCQA UM 2023 Standards and Elements.