



MEDICAL POLICY STATEMENT

Ohio Medicaid

Policy Name & Number	Date Effective
Transcranial Magnetic Stimulation for Treatment of Depression- OH MCD-MM-0233	12/01/2023
Policy Type	
MEDICAL	

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A. Subject

Transcranial Magnetic Stimulation for Treatment of Depression

B. Background

Transcranial magnetic stimulation (TMS) was originally introduced in 1985 as a noninvasive treatment modality for treatment-resistant Major Depressive Disorder (MDD) by sending brief, repetitive pulses of magnetic energy to the scalp via a large electromagnetic coil, generating a low level of electrical stimulation. These magnetic fields pass through the skull and induce electrical currents that depolarize neurons in a focal area of the surface cortex. The magnetic field generated by this type of stimulation is very small and cannot be felt by the patient but is strong enough to flow into the brain without inducing seizures or creating a need for anesthesia.

TMS is generally an outpatient procedure with awake patients and sessions that vary between 30 to 40 minutes. TMS can be delivered as a single pulse or as a series of pulses. Despite variability in the number of pulses delivered per session and the number of sessions per patient, research indicates that typical courses of TMS consist of treatment up to 5 days a week for up to 6 weeks. A tapering schedule is used to end treatment.

C. Definitions

- **Acute (Index) Course of Treatment** - The initial series of treatment given to relieve acute symptoms of MDD.
- **Adequate Trial of an Antidepressant Drug** - Taking a drug for a duration of at least 4 weeks at or near the maximum dose for the specific antidepressant as approved by the FDA, or documentation exists that higher doses were not tolerated when the dose is less than the FDA approved maximum.
- **Continuation TMS** - A course of treatment beginning after the acute/index course lasting up to 6 months and designed to prevent worsening of symptoms and continue treatment for a depressive episode that has not yet remitted.
- **Depression Rating Scale** – Standardized scales national use to reliably assess the range of symptoms most commonly observed in adults with MDD, including type and magnitude. Listed below are examples of commonly used scales:
 - o Beck Depression Inventory (BDI)
 - o Geriatric Depression Scale (GDS)
 - o Hamilton Depression Rating Scale (HAM-D)
 - o Patient Health Questionnaire-9 (PHQ-9)
 - o Quick Inventory of Depressive Symptomatology (QIDS)
- **Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR)** - The standard language by which clinicians, researchers, and public health officials in the United States communicate about mental disorders and subsequent criteria and classification.
- **Maintenance TMS** - Regularly scheduled TMS sessions on a weekly, biweekly, or monthly basis used to prevent relapse of depressive symptoms.

The MEDICAL Policy Statement detailed above has received due consideration as defined in the MEDICAL Policy Statement Policy and is approved.

- **Major Depressive Disorder (MDD)** - Discrete episodes of at least 2 weeks' duration involving changes in affect, cognition, and neurovegetative functions and inter-episode remission evidenced by a combination of 5 or more symptoms that must include either depressed mood or anhedonia representing a change from previous functioning.
- **Medication Side Effects** - Unexpected effects that cause significant distress, inhibit daily function, have the potential to worsen health, or are life threatening.
- **Remission** - The absence of significant signs or symptoms of an MDD episode during the previous 2 months.

D. Policy

- I. A review of medical necessity is required for initial or continuation courses of TMS.
- II. *Initial (acute/index) treatment is considered medically necessary when **ALL** the following criteria are met:*
 - A. *Member is 18 years of age or older.*
 - B. *Member has a confirmed diagnosis of major depressive disorder, single or recurrent, with a current severe episode as evidenced by a recent score on a standardized depression rating scale and at least **one** of the following:*
 1. *Need for treatment, as indicated by **one** of the following:*
 - a. *Resistance to treatment with documented adherence as evidenced by a lack of a clinically significant response during a current or previous depressive episode and 2 or more classes of antidepressant agents at or near maximum effective dose and duration approved by the FDA, **or***
 - b. *Inability to tolerate pharmacotherapy as evidenced by 2 antidepressants with documented side effects.*
 2. *Continuation of acute course of treatment, as indicated by **all** the following:*
 - a. *Continuation of symptoms after index (acute) course of treatment, **and***
 - b. *Previous positive response to index (acute) course of treatment as evidenced by a reduction of 50% in a depression severity rating scale as compared to baseline.*
 - C. *None of the following conditions or contraindications are present:*
 1. *No epilepsy or history of seizure or presence of other neurologic disease that may lower seizure threshold (e.g., cerebrovascular accident, severe head trauma, increased intracranial pressure).*
 2. *No acute or chronic psychotic symptoms or disorders (e.g., schizophrenia, schizophreniform, or schizoaffective disorder).*
 3. *No cochlear implant, deep brain stimulator, or vagus nerve stimulator.*
 4. *No current use of substances that may significantly lower seizure threshold, such as alcohol or stimulants.*
 5. *No metallic hardware or implanted magnetic-sensitive medical device (e.g., implanted cardioverter-defibrillator, pacemaker, metal aneurysm clips or coils) at a distance within the electromagnetic field of the discharging coil (e.g., less than or equal to 30 cm to the discharging coil).*

III. Additional treatment courses of TMS are considered medically necessary when **all** the following have been met:

- A. It has been 30 days since last session of TMS, **and**
- B. *There is a history of response to TMS in a previous depressive episode as evidenced by a greater than 50% improvement in a standardized depression rating scale, and*
- C. Medical necessity is met per Section II above.

IV. *Maintenance treatment with TMS is not considered medically necessary.* There is not sufficient evidence to support this treatment, and additional research is needed to assess net benefit versus harm for patients.

V. Additional criteria

- A. Transcranial magnetic stimulation must be administered by an FDA cleared device for the treatment of major depressive disorder in a safe and effective manner according to the manufacturer's user manual and specified stimulation parameters.
- B. *A treatment course should not exceed 5 days a week for 6 weeks (total of 30 sessions), followed by a 3- week taper of 3 treatments in 1 week, 2 treatments the next week, and 1 treatment in the last week.*
- C. TMS can be ordered by and performed under direction of a neurologist, licensed psychiatrist, or psychiatric nurse practitioner who has examined the member, reviewed the record when it is within his/her scope of practice, and has experience in administering TMS therapy within his/her scope of practice.

E. Conditions of Coverage

NA

F. Related Policies/Rules

Medical Necessity Determinations

G. Review/Revision History

DATE		ACTION
Date Issued	07/12/2018	
Date Revised	11/11/2020	Removed a definition, added neurologist.
	10/28/2021	Revised and expanded definitions. Added Section II and IV.
	08/31/2022	Updated background, definitions, & criteria (MCG 26 th ed).
	01/19/2023	Updated title for clarity.
	07/19/2023	Annual review. Updated references. Approved at Committee.
Date Effective	12/01/2023	
Date Archived		

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H. References

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7. Thase M, Connolly R. Unipolar depression in adults: choosing treatment for resistant depression. UptoDate. Updated January 12, 2023. Accessed July 11, 2023. www.uptodate.com
8. Transcranial Magnetic Stimulation (B-801-T). 27th ed. MCG. Updated February 1, 2023. Accessed July 11, 2023. www.careweb.careguidelines.com

Approved by Ohio Department of Medicaid 09/07/2023