Transcranial Magnetic Stimulation for Treatment Resistant Depression

MPM 20.11

Disclaimer
Refer to the member’s specific benefit plan and Schedule of Benefits to determine coverage. This may not be a benefit on all plans or the plan may have broader or more limited benefits than those listed in this Medical Policy.

Description
Transcranial magnetic stimulation (TMS) is a noninvasive technique that uses brief repetitive pulses of magnetic energy applied to the scalp via a large electromagnetic coil to generate low levels of electrical current in the underlying brain tissue. The goal of TMS is to stimulate areas of the brain involved in mood regulation to lessen the duration or severity of depressive episodes.

Coverage Determination/ Clinical Indications
Transcranial Magnetic Stimulation has been reviewed by the Technology Assessment Committee. It was reviewed for a second time in Nov 2015. TMS remains not covered for commercial and Centennial Care plans. TMS is covered for Medicare plans. See below. Prior Authorization is required for TMS for Medicare members.

Medicare-specific Coverage Determinations
Novitas LCD L34998 states:” TMS is considered reasonable and necessary for patients diagnosed with severe Major Depression (single or recurrent episode) as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). See L34998 for covered indications and limitations.

Background
Transcranial magnetic stimulation (TMS) is a noninvasive technique that involves superficial but powerful magnetic stimulation of the brain. This is achieved by passing electrical energy through a round or figure-eight (butterfly-shaped) electromagnetic stimulation coil that is positioned on the scalp above the target cortical center. For treating depression, the target center is the right or left dorsolateral prefrontal cortex (DLPFC). Passing electrical current through the coil generates a magnetic field of 1.5 to 2.5 Tesla that travels through the skull and induces low-level electric currents in underlying tissue, thereby altering local neuronal function. Unlike an electrical field, the magnetic field passes unimpeded through the scalp and skull to the cerebral cortex, which acts as a conductive substance. The resulting electric current is accompanied by local neuronal depolarization that extends to approximately 3 centimeters (cm) in depth from the coil surface. TMS employs brief, repetitive magnetic pulses, called trains or pulse trains, during which stimulation is applied. Each train of stimulation lasts for a specific number of seconds and consists of a specific number of stimulations. Trains are spaced by intertrain intervals during which no stimulation is applied. Each intertrain interval lasts for several seconds and serves as a safety feature to prevent over stimulation. The trains and intertrain intervals are produced by repeatedly switching the coil on and off. This causes loud clicking sounds and a light tapping sensation on the head. Each session takes approximately 40 minutes,
and generally, several trains are delivered at each treatment session. A full course of TMS usually involves one session a day, five days a week for two weeks. However, the total number of sessions varies from one session every second or third day to two sessions per day, and a full course of treatment may extend to four weeks or six weeks. For treatment sessions, the patient is seated in a comfortable chair in the treatment room.

References

Transcranial Magnetic Stimulation Therapy for Treatment Resistant Depression, TMS: Evidence Review, February 2012. LCF Research, Melissa H Roberts PhDc, MS, Senior Research Associate, Ann Von Worley, RN, BSHS,CCRP, Clinical Research Associate


Coding

The coding listed in this Medical Policy is for reference only. Covered and non-covered codes are within this list.

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<tr>
<th>CPT Codes</th>
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<tr>
<td>90867</td>
<td>Therapeutic repetitive transcranial magnetic stimulation (TMS); treatment, initial, including cortical mapping, motor threshold determination, delivery and management.</td>
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<tr>
<td>90868</td>
<td>Therapeutic repetitive transcranial magnetic stimulation (TMS); Subsequent delivery and management, per session.</td>
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Not every Presbyterian health plan contains the same benefits. Please refer to the member’s specific benefit plan and Schedule of Benefits to determine coverage.
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<tr>
<th>HCPCS© Codes</th>
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<tr>
<th>ICD-9© Diagnosis Codes</th>
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<td>296.3</td>
<td>Major Depression, recurrent episode</td>
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Reviewed by: Gray Clarke MD, Medical Director, PHP Centennial Care, Behavioral Health.

Clinical Quality Committee: Norman White MD

Medical Director: Pedro Cardona MD

Approval Date: January 27, 2016

Publication History:
02-22-2012: Original effective date
06-24-2015: Updated
01-27-2016: Re review of topic. Guests included Dr Gary Henschen from Magellan and Dr Rueben Sutter (Private Practice). Meeting was on 11-11-15.

This Medical Policy is intended to represent clinical guidelines describing medical appropriateness and is developed to assist Presbyterian Health Plan and Presbyterian Insurance Company, Inc. (Presbyterian) Health Services staff and Presbyterian medical directors in determination of coverage. This Medical Policy is not a treatment guide and should not be used as such.

For those instances where a member does not meet the criteria described in these guidelines, additional information supporting medical necessity is welcome and may be utilized by the medical director in reviewing the case. Please note that all Presbyterian Medical Policies are available on the Presbyterian Healthcare Services website at: http://www.phs.org/phs/healthplans/providers/healthservices/Medical/index.htm

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