Transcranial Magnetic Stimulation is **COVERED** for individuals with moderate-to-severe major depressive disorder (MDD) who are refractory to optimal psychiatric therapy, including pharmacologic therapy and psychotherapy.

Transcranial magnetic stimulation is investigative and unproven and therefore **NOT COVERED** as maintenance therapy for individuals with major depressive disorder (MDD). There is insufficient reliable evidence in the form of high quality peer-reviewed medical literature to establish the effects on health care outcomes.

Transcranial magnetic stimulation therapy is investigative and unproven and therefore **NOT COVERED** for all other indications, including but not limited to: mild MDD, and other behavioral health-related or medical conditions. There is insufficient reliable evidence in the form of high quality peer-reviewed medical literature to establish the efficacy or effects on health care outcomes.

**Note:** See Medica Utilization Management policy, *Behavioral Health Services* (III-BEH.01), for specific medical necessity criteria for members covered by Medica Individual and Family Business (IFB) and select Mayo health plans.

**Description**

Transcranial magnetic stimulation (TMS) employs an electromagnetic coil system to deliver very short and repeated pulses of magnetic energy. TMS is currently being suggested as monotherapy or as adjunctive treatment for various psychiatric and neurological disorders including (but not limited to) depression and other psychiatric conditions, chronic neurologic pain, migraines, tinnitus, epilepsy, dystonia, Parkinson’s disease, and stroke.

Introduced in the mid-1980s as a noninvasive method of brain stimulation, the NeuroStar TMS Therapy System was developed using a figure-eight coil to apply current two to three centimeters (cm) into the brain tissue. In 2013, the Brainsway Deep TMS System become available. This device features an electromagnetic Hesed coil (H-coil) designed to stimulate a larger area of brain tissue and to penetrate four to five cms into the brain tissue. After being seated in a chair, an insulated coil is placed over the individual’s scalp and a rapidly alternating current is passed through the coiled wire. As a result, a magnetic field passes through tissue to stimulate the cerebral cortex of the brain, producing contralateral muscular-evoked potentials (MEPs). The electrical charges activate neurons and are thought to lead to release of neurotransmitters associated with mood regulation (e.g., serotonin, norepinephrine, dopamine). Treatment can be administered in an outpatient or inpatient setting (e.g., psychiatrist’s offices and clinics, psychiatric hospitals, and general medical/surgical hospitals with a psychiatric unit) and consists of approximately five, 40-minute sessions per week for up to six weeks.
Multiple rTMS devices have received FDA clearance. The following devices have been FDA cleared for marketing as predicate devices for the treatment of depression:

1. Brainsway Deep TMS System (Brainsway LAtd.)
2. MagVita TMS Therapy System (Tonica Elektronik)
3. NeuroStar TMS Therapy System (Neuronetics Inc.)
4. Rapid2 Therapy System (MagStim Industries).

Devices available for marketing, but not necessarily approved for psychiatric applications, include but are not limited to:

1. Cerena™ Transcranial Magnetic Stimulator (eNeura Therapeutics®)
2. MagPro R30 (Tonica Elektronik)
3. Magstim Super Rapid (The Magstim Company Limited)
4. Navigated Brain Stimulation System (Nexstim)
5. MagPro X100 (Tonica Elektronik).

Available devices not found on the FDA website include, but are not limited to:

1. DANTEC (Dantec Medical; Medtronic)
2. NeoPulse (Neotonus)
3. In 2011, the FDA published special controls guidance, Guidance for Industry and FDA Staff - Class II Special Controls Guidance Document: Repetitive Transcranial Magnetic Stimulation (rTMS) Systems, to specify the definition and appropriate use of TMS systems.

Prior Authorization
Prior authorization is not applicable. However, services with specific coverage criteria may be reviewed retrospectively to determine if criteria are being met. Retrospective denial may result if criteria are not met.

Coding Considerations
Use the current applicable CPT/HCPCS code(s). The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement.

CPT Codes
- 90867 - Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; initial, including cortical mapping, motor threshold determination, delivery and management.
- 90868 - Subsequent delivery and management, per session
- 90869 - Subsequent motor threshold re-determination with delivery and management

Original Effective Date: 9/1/2004
Re-Review Date(s):
5/22/2007
5/25/2010
11/17/2012
6/17/2015
12/21/2016
9/4/2018 – Administrative update; note added
12/18/2019
2/20/2020 – administrative update; format
5/26/2020
3/23/2021 – administrative update; title change

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