GUIDELINES
This policy does not certify benefits or authorization of benefits, which is designated by each individual policyholder contract. Paramount applies coding edits to all medical claims through coding logic software to evaluate the accuracy and adherence to accepted national standards. This guideline is solely for explaining correct procedure reporting and does not imply coverage and reimbursement.

DESCRIPTION
Transcranial Magnetic Stimulation (TMS) is a non-invasive treatment that uses pulsed magnetic fields to induce an electric current in a localized region of the cerebral cortex. An electromagnetic coil placed on the scalp induces focal current in the brain that temporarily modulates cerebral cortical function. Capacitor discharge provides electrical current in alternating on/off pulses. Stimulation parameters may be adjusted to alter the excitability of the targeted structures in specific cortical regions. Repetitive TMS (rTMS) has been investigated as treatment for pharmacoresistant depression.

TMS parameters include cranial location, stimulation frequency, duration, and intensity. TMS is delivered in outpatient settings without anesthesia or analgesia. Typically for the treatment of depression, the coil is located over the left prefrontal cortex. The rTMS is performed daily (weekdays) for 6 weeks. There is no need for anesthesia or analgesia and there are no restrictions about activities before or after treatment (e.g. driving, working, operating heavy machinery).

When used as an antidepressant therapy, TMS produces a clinical benefit without the systemic side effects attendant with standard oral medications. TMS does not have adverse effects on cognition. Unlike electroconvulsive therapy (ECT), rTMS does not induce amnesia or seizures.

Navigated transcranial magnetic stimulation (nTMS) is being investigated as a noninvasive modality to map essential functional motor cortex areas for diagnostic indications and for preoperative treatment planning. Several comparative studies with small sample sizes suggest that nTMS may be useful as a mapping modality of the motor cortex. Additional well-designed clinical studies with larger patient populations are required.

POLICY
Transcranial magnetic stimulation (TMS) (90867, 90868, 90869) is non-covered for Advantage.

Transcranial magnetic stimulation (TMS) (90867, 90868, 90869) requires prior authorization for HMO, PPO, Individual Marketplace, & Elite.

Navigated transcranial magnetic stimulation (nTMS) (0310T) is non-covered for all product lines. (Deleted code 0310T effective 12/31/17)

Paramount has determined that navigated transcranial magnetic stimulation (nTMS) is non-covered for any indication as there is no compelling evidence, after review of literature, to cover this at this time.

Advantage
Paramount has determined that transcranial magnetic stimulation (TMS) is non-covered for any indication as there is no compelling evidence, after review of literature, to cover this at this time.

HMO, PPO, Individual Marketplace, Elite
Paramount considers TMS therapy reasonable and necessary when it is furnished in accordance with the accepted standards of medical practice, when it is furnished in a setting appropriate to the patient's medical needs and condition, when it meets but does not exceed the patient’s medical need and when it is ordered and furnished by qualified personnel. It is expected that TMS therapy will be ordered by, and furnished under, the direct supervision of a psychiatrist who has experience administering TMS therapy.

TMS therapy not ordered by and furnished under direct supervision, by a psychiatrist will be considered not medically reasonable and necessary and not subject to coverage.
Initial Treatment
Left Prefrontal rTMS of the brain is considered medically necessary for use in an adult who meets all four of the following criteria:

1. Has a confirmed diagnosis of severe major depressive disorder (MDD) single or recurrent episode (as listed below); and

2. One or more of the following:
   - Resistance to treatment with psychopharmacologic agents as evidenced by a lack of a clinically significant response to four trials of psychopharmacologic agents in the current depressive episode from at least two different agent classes. At least one of the treatment trials must have been administered at an adequate course of mono- or poly-drug therapy; or
   - Inability to tolerate psychopharmacologic agents as evidenced by four trials of psychopharmacologic agents from at least two different agent classes, with distinct side effects; or
   - History of response to rTMS in a previous depressive episode; or
   - If patient is currently receiving electro-convulsive therapy, rTMS may be considered reasonable and necessary as a less invasive treatment option.

Resistance to treatment is defined by a failure to achieve a 50% reduction in depressive symptoms, in accordance with objective measures such as PHQ-9 and/or HAM-D, from a pharmacologic trial where the medication is administered at the recommended adult dose, per the FDA label, for a period of not less than 6 weeks.

Psychopharmacologic agent side effects will be considered intolerable, when those side effect are of a nature where they are not expected to diminish or resolve with continued administration of the drug

AND

3. A trial of an evidence-based psychotherapy known to be effective in the treatment of MDD of an adequate frequency and duration without significant improvement in depressive symptoms as documented by standardized rating scales that reliably measure depressive symptoms.

AND

4. The order for treatment (or retreatment) is written by a psychiatrist (MD or DO) who has examined the patient, and reviewed the record. The psychiatrist will have experience in administering TMS therapy. The treatment shall be given under direct supervision of this psychiatrist (physician present in the area and immediately available, but does not necessarily personally provide the treatment).

Coverage Limitations
The benefits of TMS use must be carefully considered against the risk of potential side effects in patients with any of the following:

- Seizure disorder or any history of seizures (except those induced by ECT or isolated febrile seizures in infancy without subsequent treatment or recurrence); or
- Presence of acute or chronic psychotic symptoms or disorders (such as schizophrenia, schizophreniform or schizoaffective disorder) in the current depressive episode; or
- Neurological conditions that include epilepsy, cerebrovascular disease, dementia, increased intracranial pressure, history of repetitive or severe head trauma, or primary or secondary tumors in the central nervous system, or
- Presence of an implanted magnetic-sensitive medical device located less than or equal to 30 cm from the TMS magnetic coil or other implanted metal items including, but not limited to a cochlear implant, implanted cardiac defibrillator (ICD), pacemaker, Vagus nerve stimulator (VNS), or metal aneurysm clips or coils, staples or stents.
- Dental amalgam fillings are not affected by the magnetic field and are acceptable for use with TMS.
Retreatment
Retreatment may be considered for patients who met the guidelines for initial treatment and subsequently developed relapse of depressive symptoms if the patient responded to prior treatments as evidenced by a greater than 50% improvement in standard rating scale measurements for depressive symptoms. (e.g., GDS, PHQ-9, BDI, HAM-D, MADRS, QIDS or IDS-SR scores).

All other uses of Transcranial Magnetic Stimulation, including "maintenance therapy" are experimental and are not covered.

CODING/BILLING INFORMATION
The appearance of a code in this section does not necessarily indicate coverage. Codes that are covered may have selection criteria that must be met. Payment for supplies may be included in payment for other services rendered.

CPT CODES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>90867</td>
<td>Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; initial, including cortical mapping, motor threshold determination, delivery and management</td>
</tr>
<tr>
<td>90868</td>
<td>Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; subsequent delivery and management, per session</td>
</tr>
<tr>
<td>90869</td>
<td>Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; subsequent motor threshold re-determination with delivery and management</td>
</tr>
<tr>
<td>0310T</td>
<td>Motor function mapping using non-invasive navigated transcranial magnetic stimulation (nTMS) for therapeutic treatment planning, upper and lower extremity (Deleted code effective 12/31/17)</td>
</tr>
</tbody>
</table>

ICD-10 CODES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F32.2</td>
<td>Major depressive disorder, single episode, severe without psychotic features</td>
</tr>
<tr>
<td>F33.2</td>
<td>Major depressive disorder, recurrent severe without psychotic features</td>
</tr>
</tbody>
</table>


REVISION HISTORY EXPLANATION

04/18/14: Policy created to reflect most current clinical evidence. TMS continues to be non-covered for all product lines. New policy approved per The Technology Assessment Working Group (TAWG).

04/23/15: Policy reviewed and updated to reflect most current clinical evidence per The Technology Assessment Working Group (TAWG).

09/28/15: Added code 0310T.

01/22/16: Effective 02/08/2016 transcranial magnetic stimulation (TMS) (90867, 90868, 90869) may be covered with prior authorization for Elite only per CMS guidelines. Policy reviewed and updated to reflect most current clinical evidence per The Technology Assessment Working Group (TAWG).

03/24/17: Policy reviewed and updated to reflect most current clinical evidence per The Technology Assessment Working Group (TAWG).

12/15/17: Transcranial magnetic stimulation (TMS) (90867, 90868, 90869) is now covered with prior authorization for all product lines except Advantage per ODM guidelines. Effective 12/31/17 deleted code 0310T. Policy reviewed and updated to reflect most current clinical evidence per The Technology Assessment Working Group (TAWG).

11/28/18: Added ICD-10 codes F32.2 & F33.2 per CMS guidelines. Policy reviewed and updated to reflect most current clinical evidence per The Technology Assessment Working Group (TAWG).

REFERENCES/RESOURCES
Centers for Medicare and Medicaid Services, CMS Manual System and other CMS publications and services
Ohio Department of Medicaid [http://jfs.ohio.gov/](http://jfs.ohio.gov/)
American Medical Association, Current Procedural Terminology (CPT®) and associated publications and services
Industry Standard Review
Hayes, Inc.