Subject: Transcranial Magnetic Stimulation

Background: Transcranial magnetic stimulation (TMS) is a non-invasive procedure that utilizes electromagnetic induction to stimulate nerve cells in the brain and alleviate symptoms of depression. Individuals with unipolar major depression who do not respond to standard pharmacotherapy and psychotherapy treatment may be candidates for this neuromodulation procedure. The majority of studies evaluating the safety and efficacy of TMS report on use for the acute phase of Major Depression. There is limited evidence to support TMS therapy during the continuation and maintenance phases.

Maintenance therapy is defined as continual TMS treatments to sustain a threshold response level without a defined end goal. There is not enough clinical evidence to support TMS for this purpose.

Authorization:
Prior Authorization is required for all transcranial magnetic stimulation services provided to members enrolled in commercial (HMO, POS, PPO) products.

Policy and Coverage Criteria:

Initial Treatment
Harvard Pilgrim Health Care (HPHC) considers initial transcranial magnetic stimulation (TMS) therapy as medically necessary in adults (18 years or older) when documentation confirms ALL the following:

- A trial of an evidence-based psychotherapy known to be effective in the treatment of Major Depressive Disorder (MDD), of an adequate frequency and duration, has been attempted without significant improvement in depressive symptoms as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5); AND
- The member’s current baseline depression measurement score has been documented using an evidence-based validated rating scale (e.g., BDI; HAM-D; MADRS); AND
- TMS treatment is provided using a device that is approved by the FDA for the treatment of MDD; AND
- TMS Treatment is prescribed and provided by, or under the supervision of, a psychiatrist trained in the use of the specific device; AND
- ANY of the following:
  - Member has inability to tolerate with distinct side effects or has failed at least 4 psychopharmacologic trials, at or above minimal dose or duration, from at least 2 agent classes in the current depressive episode, OR
  - Member has history of response to TMS in a previous depressive episode, OR
  - Member has history of response to electroconvulsive therapy (ECT) in a previous or current depressive episode, OR
  - Member has inability to tolerate ECT and TMS is considered a less invasive treatment option.

Recurrent Treatment

HPHC Medical Review Criteria
Harvard Pilgrim Health Care (HPHC) considers recurrent transcranial magnetic stimulation (TMS) as medically necessary in adults when documentation confirms ALL the following:

- Criteria for initial TMS are met; AND
- Member has more than 50% improvement in previous treatments as proven with a reputable psychometric instrument (i.e. PHQ-9, HAM-D, MADRS, Beck Depression Instrument)
- Documentation that member achieved remission and recovery2 response after receiving TMS during the acute phase for treatment-resistant Major Depression; AND
- At least 9 months since the initiation of the last course of TMS treatment.

NOTE: Treatment is limited up to 30 sessions within a 7-week period with up to 6 taper treatments to be administered in the 3 weeks following the 30-session treatment.

NOTE: Additional clinical documentation beyond what is noted above may be requested on a case-by-case basis for episode-based TMS therapy.

**Exclusions:**

Harvard Pilgrim Health Care (HPHC) considers transcranial magnetic stimulation (TMS) as not medically necessary for all other indications. In addition, HPHC does not cover:

- TMS therapy administered outside a clinical office of facility
- Fisher Wallace Stimulator
- Spring TMS
- Members who have a suicide plan or have recently attempted suicide
- Members with psychosis or with psychiatric emergencies where a rapid clinical response is needed, such as marked physical deterioration or catatonia
- TMS treatment for bipolar disorder, or psychotic disorder (including schizoaffective disorder and major depression with psychotic features), OCD, PTSD, smoking cessation, stroke, chronic pain, Alzheimer's disease and autism
- Members with a history of substance abuse, eating disorder, or post-traumatic stress disorder whose symptoms are the primary contributors to the clinical presentation
- Members with a history of or risk factors for seizures during TMS therapy
- Members with neurological conditions that include epilepsy, cerebrovascular disease, dementia, increased intracranial pressure, history of repetitive or severe head trauma, or tumors in the central nervous system
- Members with conducive, ferromagnetic or other magnetic-sensitive metals implanted in their heads which are non-removable and within 30 cm of the TMS magnetic coil
- Members who have active or inactive implants (including device leads), including deep brain stimulators, cochlear implants, and vagus nerve stimulators
- Members with vagus nerve stimulator leads in the carotid sheath or implants controlled by physiologic signals, including pacemakers, and implantable cardioverter defibrillators
- Members individuals who are pregnant or nursing
- TMS therapy past maximum number of treatment sessions (Maintenance TMS therapy for the same episode)
- Treatment of behavioral disorders other than major depressive disorder
Coding:
Codes are listed below for informational purposes only, and do not guarantee member coverage or provider reimbursement. The list may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible.

<table>
<thead>
<tr>
<th>CPT® Codes</th>
<th>Description</th>
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<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; motor threshold re-determination with delivery and management</td>
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Billing Guidelines:
Member’s medical records must document that services are medically necessary for the care provided. Harvard Pilgrim Health Care maintains the right to audit the services provided to our members, regardless of the participation status of the provider. All documentation must be available to HPHC upon request. Failure to produce the requested information may result in denial or retraction of payment.

References:

HPHC Medical Review Criteria

Transcranial Magnetic Stimulation

HPHC policies are based on medical science, and written to apply to the majority of people with a given condition. Individual members’ unique clinical circumstances, and capabilities of the local delivery system are considered when making individual UM determinations.

Coverage described in this policy is standard under most HPHC plans. Specific benefits may vary by product and/or employer group. Please reference appropriate member materials (e.g., Benefit Handbook, Certificate of Coverage) for member-specific benefit information.

HPC Medical Review Criteria

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**HPHC Medical Review Criteria**

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**Summary of Changes:**

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td>2/18</td>
<td>Policy coverage criteria and exclusions refined; criteria on recurrent treatment specified</td>
</tr>
<tr>
<td>10/17</td>
<td>Policy coverage criteria refined; no coding change</td>
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<tr>
<td>7/16</td>
<td>Clarified exclusions</td>
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<tr>
<td>6/16</td>
<td>Updated references; added exclusions of TMS devices for home use</td>
</tr>
<tr>
<td>6/15</td>
<td>Updated clinical literature resources</td>
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*Approved by Medical Policy Review Committee: 2/13/18
Revised: 6/13; 6/14; 6/15; 6/16; 7/16; 10/17; 2/18
Initiated: 6/13*