DESCRIPTION

A. DESCRIPTION OF TRANSCRANIAL MAGNETIC STIMULATION (rTMS)

Repetitive transcranial magnetic stimulation (rTMS) uses a specifically designed magnetic coil that is placed in contact with the scalp to generate rapidly alternating magnetic fields and produces electrical stimulation of superficial cortical neurons. The procedure takes approximately 40 minutes and is generally administered daily over a four to seven week period. Based on the results of a multisite randomized controlled clinical trial using high frequency pulses over the left prefrontal cortex (HFL-TMS), rTMS was approved by the FDA in October 2008 for use in the treatment of refractory Major Depressive Disorder. HFL-rTMS requires no anesthesia or sedation, has about a 5% discontinuation rate due to adverse effects (mostly headache or scalp pain) and no systemic side effects. There are no long-term studies of rTMS.

B. ELIGIBILITY REQUIREMENTS FOR TRANSCRANIAL MAGNETIC STIMULATION (rTMS)

OSU Health Plan, Inc. has developed the following guidelines for determining when rTMS is medically necessary:

A. The Member must have a diagnosis of Major Depression (single or recurrent episode) as defined by the most recent Diagnostic and Statistical Manual™ (DSM); and

B. 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. Previous clinical documentation (including standardized rating scales that reliably measure depressive symptoms if available) of psychotherapy is required; and

C. One or more of the following:

1. Resistance to treatment with psychopharmacologic agents as evidenced by a lack of clinically significant response to four trials*, from at least two different agent classes, including at least one anti-depressant medication, administered at an adequate dose and duration of at least 4 weeks; or

2. Inability to tolerate psychopharmacologic agents as evidenced by failed trials of four such agents due to side effects; or

3. History of good response to rTMS in a previous episode, as evidenced by a greater than 50% improvement in a standard rating scale for depressive symptoms (e.g., HAM-D, BDI, MADRS PHQ-9).

*For OSU "continuing care" (non-external referrals) patients less than 50% in PHQ-9 improvement if available.
C. AUTHORIZATION GUIDELINES:

1. Thirty (30) visits over approximately 7 weeks followed by six (6) taper treatments. Maximum duration of treatment period is 12 weeks.
2. Documentation Requirements:
   a. Request form
   b. Clinical documentation as applicable

D. EXCLUSIONS:

OSU Health Plan, Inc. will not cover rTMS under the following circumstances:

A. For formats other than HFL-rTMS, as their use is considered experimental
B. rTMS should not be used for members who have conductive, ferromagnetic or other magnetic-sensitive metals implanted in their head and located less than 30 cm from the rTMS magnetic coil, including but not limited to cochlear implants, implanted electrodes or stimulators, aneurysm clips or coil, or bullet fragments.
C. In a setting other than a medical office or facility.

The use of rTMS as a maintenance therapy to prevent relapse is not supported by controlled clinical trials and is therefore not considered medically necessary.

E. CPT CODES COVERED IF SELECTION CRITERIA ARE MET:

Table 1: ICD-9 Diagnosis Codes

<table>
<thead>
<tr>
<th>ICD-9 Diagnosis 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>

Table 2: CPT Procedure Codes

<table>
<thead>
<tr>
<th>CPT Procedure Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>90867</td>
<td>Therapeutic repetitive magnetic stimulation (TMS) treatment; initial, including cortical mapping, motor threshold determination, delivery and management</td>
</tr>
<tr>
<td>90868</td>
<td>Subsequent delivery and management, per session</td>
</tr>
<tr>
<td>90869</td>
<td>Subsequent motor threshold re-determination with delivery and management</td>
</tr>
</tbody>
</table>

F. APPROVAL PROCESS FOR TRANSCRANIAL MAGNETIC STIMULATION (rTMS)

1. An evaluation must be completed and submitted by a licensed clinical representative.
2. Treatment meets the OSU Health Plan's medical necessity coverage guidelines.

PRIOR AUTHORIZATION INSTRUCTIONS
Submit required documentation to the OSU Health Plan

INDICATIONS FOR NURSE APPROVAL
Members meeting the established OSU Health Plan criteria.
REASONS FOR PHYSICIAN REVIEWER DENIAL
Requirements not met for eligibility.

REFERENCES


George, M.S. et al. (2010). Daily left prefrontal transcranial magnetic stimulation therapy for major depressive disorder. *Arch Gen Psychiatry.* 67(5); 507-516.

Institute for Clinical Systems Improvement (2010)


Kennedy, et al. (2009). *J Aff Disorders.* 117(1); S1-S64.

