Medical Coverage Policy

Transcranial Magnetic Stimulation for Treatment of Depression and Other Psychiatric/Neurologic Disorders-PREAUTH

☐ Device/Equipment ☐ Drug ☐ Medical ☒ Surgery ☐ Test ☐ Other

Effective Date:	3/17/2012	Policy Last Updated:	5/15/2012

☒ **Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.**

☐ **Prospective review is not required.**

Description:
Transcranial magnetic stimulation (TMS also called repetitive transcranial magnetic stimulation [rTMS]) is a non-invasive method of delivering electrical stimulation to the brain. A magnetic field is delivered through the skull where it induces electric currents that affect neuronal function. Repetitive TMS is being evaluated as a treatment of depression and other psychiatric/neurologic brain disorders.

Transcranial magnetic stimulation (TMS) was first introduced in 1985 as a new method of non-invasive stimulation of the brain. The technique involves placement of a small coil over the scalp; passing a rapidly alternating current through the coil wire, which produces a magnetic field that passes unimpeded through the scalp and bone, resulting in electrical stimulation of the cortex. TMS was initially used to investigate nerve conduction; for example, TMS over the motor cortex will produce a contralateral muscular-evoked potential. The motor threshold, which is the minimum intensity of stimulation required to induce a motor response, is empirically determined for each individual by localizing the site on the scalp for optimal stimulation of a hand muscle, then gradually increasing the intensity of stimulation. The stimulation site for treatment is usually 5 cm anterior to the motor stimulation site.

TMS is also being tested as a treatment for a variety of other disorders including alcohol dependence, Alzheimer's disease, neuropathic pain, obsessive-compulsive disorder (OCD), postpartum depression, depression associated with Parkinson's disease, Tourette's syndrome, schizophrenia, migraine, spinal cord injury, fibromyalgia, and tinnitus.

The available studies do not establish that rTMS is as good as available alternatives, as the vast majority of the trials do not compare rTMS to alternative active treatments. Alternative treatments include a variety of different medication regimens and psychologic talk therapy, both of which have demonstrated efficacy. In addition, further research is needed to determine which of the locations and treatment parameters examined to date are most effective to guide the number of sessions needed to elicit a clinically significant response, to determine whether the response is durable with or without anti-depressant medications, and to provide some

information about whether maintenance treatments are needed, and which types of maintenance treatment are most effective

Medical Criteria:

All BCBSRI Products Effective 3/17/2012

Left prefrontal rTMS is covered for patients diagnosed with severe major depression (single or recurrent episode) as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), who also have at least **one of the following**:

- Resistance to treatment with psychopharmacologic agents as evidenced by a lack of clinically significant response to four trials of such 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 trials of four such agents with distinct side effects; **or**
- History of good response to rTMS in a previous episode; **or**
- If patient is currently receiving electroconvulsive therapy, rTMS may be considered reasonable and necessary as a less invasive treatment option.

rTMS is reasonable and necessary for up to 30 visits over a 7-week period followed by 6 taper treatments.

Repeat acute treatment for relapse of depressive symptoms is considered medically necessary if the patient responded to prior treatments, specifically > 50% improvement in a standard rating scale for depressive symptoms (e.g, (GDS), PHQ-9, BDI, HAM-D, and MADRS, QIDS or IDS-SR score). If patient meets the relapse criteria, up to 30 visits for the acute phase treatment followed by an additional 6 visits for tapering is considered reasonable and necessary.

The use of rTMS as a maintenance therapy is not supported by controlled clinical trial at this time and is therefore, considered not reasonable and necessary.

It is reasonable and necessary to report the treatment planning service (90867) once per course of treatment.

Cautionary Uses
The benefits of rTMS 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 seizure (except those induced by ECT or isolated febrile seizures in infancy without subsequent treatment or recurrence).
- The presence of vagus nerve stimulator leads in the carotid sheath.
- The presence of an implanted medical device located > 30 cm from the rTMS magnetic coil, including but not limited to pacemakers, implanted defibrillators, or vagus nerve stimulators.

Coverage Limitations

rTMS is considered not reasonable and necessary when used as a treatment modality for patients with any of the following:

- Presence of psychotic symptoms in current depressive episode.
- Chronic or acute psychotic disorder such as schizophrenia, schizophreniform disorder, or schizoaffective disorder.
- rTMS should not be used in patients who have conductive, ferromagnetic or other magnetic-sensitive metals implanted in their head which are non-removable and within 30cm of the rTMS magnetic coil. Examples include cochlear implants, implanted electrodes/stimulators, aneurysm clips or coil, stents, and bullet fragments. Note: Dental amalgam fillings are not affected by the magnetic field and are acceptable for use with rTMS.

Policy:

Effective 3/17/2012 - Preauthorization is required for BlueCHiP for Medicare and recommended for all other BCBSRI products.

Transcranial magnetic stimulation is covered for **all BCBSRI products** as a treatment of depression and other psychiatric/neurologic disorders when the criteria above is met.

Coverage:
Benefits may vary between groups/contracts. Please refer to the Evidence of Coverage, Subscriber Agreement or Benefit Booklet for applicable outpatient hospital services benefits.

Coding:
The following codes **are covered for all BCBSRI products with preauthorization:**
90867 Therapeutic repetitive transcranial magnetic stimulation treatment planning
90868 Therapeutic repetitive transcranial magnetic stimulation treatment delivery and management, per session
90869 Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; subsequent motor threshold re-determination with delivery and management (new code 2012)

Also known as:
TMS

Related topics:
Not applicable

Published:
Provider Update, August 2009
Provider Update, October 2010
Provider Update, February 2011
Provider Update, May 2012
Provider Update, July 2012

References:

Blue Cross and Blue Shield Association Medical Policy Reference Manual. 2.01.50 Transcranial Magnetic Stimulation as a Treatment of Depression and Other Psychiatric/Neurologic Disorders.

Accessed 1/30/12
http://bluewebportal.bcbs.com/global_assets/special_content/medical_policy/policymanual/policy.html?pnum=20150

Blue Cross and Blue Shield Association Technology Evaluation Center (TEC). Transcranial magnetic stimulation for depression. TEC Assessments 2009; Volume 24, Tab 5. Accessed 1/30/12

Centers for Medicare and Medicaid Services. LCD FUTURE DRAFT Local Coverage Determination (LCD) for Repetitive Transcranial Magnetic Stimulation (rTMS) (DL32228) Accessed 1/30/12