



TRANSCRANIAL MAGNETIC STIMULATION FOR DEPRESSION

Effective Date: March 18, 2011

Review Dates: 2/10, 2/11, 2/12

Date Of Origin: February 10, 2010

Status: Current

I. POLICY/CRITERIA

A. Coverage Criteria (all of the following must be met):

1. Patient is 18 years of age or older.
2. Patient meets the definition of unipolar major depression as defined by the DSM-IV criteria.
3. Patient demonstrates resistance to treatment with psychopharmacologic agents as evidenced by a lack of a clinically significant response to 4 trials of such agents, in the current depressive episode, from at least 2 different agent classes.
4. The current treatment episode must demonstrate an adequate course of mono- or poly-drug therapy provided under the supervision of a psychiatrist. APA practice guidelines for Major Depressive Disorder state adequate treatment with an antidepressant medication for at least 4 to 8 weeks is necessary before concluding that a patient is not responsive or only partially responsive to a particular medication. For patients who have shown a partial response, extending the anti-depressant medication trial (i.e. 2 – 4 weeks) may allow up to one-third of patients to respond more fully. Titration to full therapeutic doses may vary depending on the development of side effects, the patient's age and the presence of co-morbid illness.
5. Patient has been under the care of a psychiatrist for the entirety of their current depressive episode and/or the past 90 days.
6. Patient has moderate to severe depression as defined by use of one of the following validated, evidence-based depression monitoring tools: HAM-D, MADRS or QIDS, IDS-SR.
7. If patient is a candidate for electro convulsive therapy, rTMS may be authorized as a less invasive treatment option.

B. Absolute Contraindications

1. Seizure disorder or any history of seizures (except those induced by ECT or isolated febrile seizures in infancy without subsequent treatment or recurrence)
2. Space occupying brain lesion
3. Evidence of increased intracranial pressure
4. Presence of intracranial devices (e. g. CSF shunts, aneurysm clips, cochlear/otologic implants, deep brain stimulation leads)
5. Vagus nerve stimulator leads (with or without IPG)



6. Facial tattoos with metallic ink
7. Carotid or cerebral stents
8. Ferromagnetic ocular implants
9. Magnetically activated dental implants
10. Pellets, bullets or metallic fragments < 30 cm from coil

C. Relative contraindications:

1. Dementia and other degenerative neurologic conditions, e. g. Parkinson's Disease, multiple sclerosis;
2. Unstable medical conditions;
3. Chronic or acute psychotic disorder, e. g. schizophrenia, schizophreniform disorder, schizoaffective disorder
4. Serious co-morbid psychiatric conditions, e. g. psychotic depression, active substance abuse;
5. History of cerebrovascular accident
6. Implantable automatic defibrillator or cardiac pacemaker
7. History of significant head injury (loss of consciousness > 5 min and/or hospitalization)

D. Limitations and exclusions

1. Treatment for patients non-compliant with prior therapies is not covered
2. Failure to monitor and document patient response will result in denial of further coverage.
3. If the above coverage criteria are met, Priority Health will cover an initial six weeks of therapy, up to 30 visits and 6 taper treatments.
4. Maintenance therapy with TMS is not considered medically necessary because no clinical trials have been done to demonstrate the clinical benefit nor have clinical trials been done to document the optimal frequency or duration of maintenance therapy.
5. Repeat acute treatment for relapse of depressive symptoms is considered medically necessary if the patient responded to prior treatment, specifically >50% improvement in score by use of a validated, evidence-based depression monitoring tool, such as HAM-D, MADRS or QIDS. If the patient meets these criteria Priority Health will authorize an additional 30 visits for acute phase treatment followed by additional six visits for tapering therapy.

E. Provider requirements

The treating psychiatrist and facility must meet the following criteria:

1. Certification by the product manufacturer to provide rTMS therapy.
2. Provider uses one of the following validated, evidence-based depression monitoring tools: HAM-D, MADRS, IDS-SR or QIDS for monitoring treatment response and remission.
3. Provider submits an updated copy of the administered HAM – D, MADRS, IDS-SR or QIDS demonstrating moderate to severe depression during the current depressive episode with the initial authorization request.



4. Provider submits an updated copy of the administered HAM-D, MADRS, IDS-SR or QIDS upon completion of the treatment episode and 6 months post treatment episode (pending member is still under the care of the provider).

This policy is based on review and recommendations of Priority Health's Technology Assessment Committee in December 2008 and Behavioral Health Committee in December 2009.

Note: Not covered by Medicaid, request for services must be coordinated with CMH.

II. MEDICAL NECESSITY REVIEW

- Required Not Required Not Applicable

III. APPLICATION TO PRODUCTS

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- ❖ **HMO/EPO:** *This policy applies to insured HMO/EPO plans.*
- ❖ **POS:** *This policy applies to insured POS plans.*
- ❖ **PPO:** *This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.*
- ❖ **ASO:** *For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.*
- ❖ **INDIVIDUAL:** *For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.*
- ❖ **MEDICARE:** *Coverage is determined by the Centers for Medicare and Medicaid Services (CMS); if a coverage determination has not been adopted by CMS, this policy applies.*
- ❖ **MEDICAID:** *For Medicaid members, this policy will not apply.*
- ❖ **MICHILD:** *For MiChild members, this policy will not apply.*

IV. DESCRIPTION

Repetitive transcranial magnetic stimulation (rTMS) is a noninvasive technique that is being investigated as a treatment for major depression. Brief pulses of magnetic energy are applied to the scalp via a large electromagnetic coil to generate low levels of electrical current in underlying brain tissue. The goal of TMS is to stimulate areas of the brain involved in mood regulation in order to lessen the duration or severity of depressive episodes.



More than 75 studies and 8 metaanalyses have been published evaluating the efficacy of TMS. General findings include: TMS therapeutically effective, but the magnitude of clinical effect in question; active TMS significantly superior to sham in short-term acute treatment of treatment resistant depression (TRD) with clinically significant results; treatment is well-tolerated, few dropouts due to adverse effects; response and remission rates are low, unknown if effect is sustained. Limitations include: short treatment durations (1-2 weeks) in published studies; and response and remission rates low compared to most medication studies of TRD. (Daskalakis, et.al. and Lam et. al.). The Lam, et. al. metaanalyses calculated the number needed to treat (NNT) as 6 for the defined response rate, 7 for the defined remission rate.

V. CODING INFORMATION

ICD-9 Diagnosis Codes:

Diagnoses may support medical necessity

- 296.32 Major depressive disorder, recurrent episode, moderate
- 296.33 Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior

CPT/HCPCS Codes:

Not covered for Priority Health Medicare

- 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

Revenue Codes:

- 0940 Other Therapeutic Services - General

VI. REFERENCES

Repetitive transcranial magnetic stimulation for treatment-resistant depression: a systematic review and metaanalysis. Lam RW, Chan P, Wilkins-Ho M, Yatham LN. *Can J Psychiatry*. 2008 Sep; 53(9):621-31.

Repetitive transcranial magnetic stimulation for major depressive disorder: a review. Daskalakis, Z.J., Levinson, A. J., Fitzgerald, P.B. *Can J Psychiatry*. 2008 Sep; 53 (9): 555-566.

Hayes, Inc. Transcranial Magnetic Stimulation for Major Depression, June 2010. Update June 2011. Lansdale, PA.

FDA @ <http://www.fda.gov/cdrh/pdf6/K061053.pdf> (November 21, 2008)



Local Coverage Determination (LCD) for TRANSCRANIAL MAGNETIC Stimulation (L32038) @ <http://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=32038&ContrId=64&ver=8&ContrVer=1&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=Michigan&Keyword=transcranial+magnetic&KeywordLookUp=Title&KeywordSearchType=And&bc=gAAAABAAAA&> (Retrieved January 18, 2012).

Aetna Clinical Policy Bulletin: Transcranial Magnetic Stimulation and Cranial Electrical Stimulation @ http://www.aetna.com/cpb/medical/data/400_499/0469.html (Retrieved January 18, 2012).

Cigna Medical Coverage Policy: Transcranial Magnetic Stimulation @ http://www.cigna.com/customer_care/healthcare_professional/coverage_positions/index.html#medT (Retrieved January 18, 2012).

Regence Medical Policy: Transcranial Magnetic Stimulation as a Treatment of Depression and Other Disorders @ <http://blue.regence.com/trgmedpol/mentalHealth/mh17.html> (Retrieved January 18, 2012)

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