



**BlueCross BlueShield
of Vermont**

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Transcranial Magnetic Stimulation as a Treatment of Depression and Other Psychiatric/Neurologic Disorders Corporate Medical Policy

File Name: Transcranial Magnetic Stimulation as a Treatment of Depression and
Other Psychiatric/Neurologic Disorders
File Code: UM.SPVC.10
Origination Date: 07/2015
Last Review: 10/2020
Next Review: 10/2021
Effective Date: 12/01/2020

Description/Summary

Transcranial magnetic stimulation (TMS) is a noninvasive 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 (rTMS) is being evaluated as a treatment of depression and other psychiatric/neurologic brain disorders.

TMS 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. The literature on rTMS for treatment-resistant depression (TRD) includes numerous double-blind, randomized sham-controlled short-term trials. Results of these trials show mean improvements of uncertain clinical significance across groups as a whole. The percentage of subjects who show a clinically significant response is reported at approximately 2 to 3 times that of sham controls, with approximately 15% to 25% of patients meeting the definition of clinical response. Based on the short-term benefit observed in randomized controlled trials (RCTs), clinical input, and the lack of alternative treatments aside from electroconvulsive therapy (ECT) in patients with TRD, rTMS may be considered medically necessary in patients with TRD who meet specific criteria.

For other psychiatric/neurologic conditions, the evidence is insufficient to determine whether rTMS leads to improved outcomes. The available clinical trials are small and report mixed results for a variety of conditions other than depression. There are no large, high-quality trials for any of these other conditions. Therefore, rTMS is considered investigational for other psychiatric/neurologic conditions.

Policy

Coding Information

Click the links below for attachments, coding tables & instructions.
[Attachment I- CPT ®Code List & Instructions](#)

When a service may be considered medically necessary

Repetitive transcranial magnetic stimulation (rTMS) of the brain may be considered **medically necessary** as a treatment of major depressive disorder when all of the following conditions

(1-3) have been met:

1. Confirmed diagnosis of severe major depressive disorder (single or recurrent) documented by standardized rating scales that reliably measure depressive symptoms; **AND**
2. Any one of the following (a, b, c, or d):
 - a. Failure of 4 trials of psychopharmacologic agents including 2 different agent classes and 2 augmentation trials; **OR**
 - b. Inability to tolerate a therapeutic dose of medications as evidenced by 4 trials of psychopharmacologic agents with distinct side effects; **OR**
 - c. History of response to rTMS in a previous depressive episode (at least 3 months since the prior episode); **OR**
 - d. Is a candidate for electroconvulsive therapy (ECT) and ECT would not be clinically superior to rTMS (eg, in cases with psychosis, acute suicidal risk, catatonia or life-threatening situation rTMS should NOT be utilized); **AND**
3. Failure of a trial of a psychotherapy known to be effective in the treatment of major depressive disorder of an adequate frequency and duration, without significant improvement in depressive symptoms, as documented by standardized rating scales that reliably measure depressive symptoms.

When a service is considered investigational

rTMS for major depressive disorder that does not meet the criteria listed above is considered **investigational**.

Continued treatment with rTMS of the brain as maintenance therapy is considered **investigational**.

Transcranial magnetic stimulation of the brain is considered **investigational** as a treatment of all other psychiatric/neurologic disorders, including but not limited to bipolar disorder, schizophrenia, obsessive-compulsive disorder, or migraine headaches.

Policy Guidelines

Repetitive transcranial magnetic stimulation should be performed using a U.S. Food and Drug Administration (FDA) –cleared device in appropriately selected patients, by physicians who are adequately trained and experienced in the specific techniques used.

A treatment course should not exceed 5 days per week for 6 weeks (total of 30 sessions), followed by a 3-week taper of 3 TMS treatments in week 1, 2 TMS treatments in week 2, and 1 TMS treatment in week 3.

rTMS provided in the presence of one of the contraindications below may be considered not medically necessary:

- a. Seizure disorder or any history of seizure with increased risk of future seizure; **OR**
- b. Acute or chronic psychotic symptoms or disorders (such as schizophrenia, schizophreniform or schizoaffective disorder) presenting within the current depressive episode; **OR**
- c. Neurologic conditions that include epilepsy, cerebrovascular disease, dementia, increased intracranial pressure, a history of repetitive or severe head trauma, or with primary or secondary tumors in the central nervous system (CNS); **OR**
- d. Presence of an implanted magnetic-sensitive medical device located 30 centimeters or less from the TMS magnetic coil or other implanted metal items, including but not limited to a cochlear implant, implanted cardioverter defibrillator (ICD), pacemaker, vagus nerve stimulator, or metal aneurysm clips or coils, staples, or stents.

The following should be present for the administration of rTMS:

- a. An attendant trained in basic cardiac life support and the management of complications such as seizures, as well as the use of the equipment must be present at all times; **AND**
- b. Adequate resuscitation equipment including, for example, suction and oxygen; **AND**
- c. The facility must maintain awareness of response times of emergency services (either fire/ambulance or “code team”), which should be available within five minutes. These relationships are reviewed at least annually and include mock drills.

Reference Resources

1. Blue Cross and Blue Shield Association Medical Policy Manual, Policy Number: 2.01.50. Last Reviewed November 2019.

Document Precedence

Blue Cross and Blue Shield of Vermont (BCBSVT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language, or employer’s benefit plan if an ASO group, determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, BCBSVT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract/employer benefit plan language, the member’s

contract/employer benefit plan language takes precedence.

Audit Information

BCBSVT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, BCBSVT reserves the right to recoup all non-compliant payments.

Administrative and Contractual Guidance

Benefit Determination Guidance

Prior approval is required and benefits are subject to all terms, limitations and conditions of the subscriber contract.

NEHP/ABNE members may have different benefits for services listed in this policy. To confirm benefits, please contact the customer service department at the member's health plan.

Federal Employee Program (FEP): Members may have different benefits that apply. For further information please contact FEP customer service or refer to the FEP Service Benefit Plan Brochure. It is important to verify the member's benefits prior to providing the service to determine if benefits are available or if there is a specific exclusion in the member's benefit.

Coverage varies according to the member's group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through an Administrative Services Only (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member's employer benefit plan documents or contact the customer service department. Language in the employer benefit plan documents takes precedence over medical policy when there is a conflict.

Policy Implementation/Update information

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| 07/2015 | New policy. Adopted BCBSA policy#2.01.50. Approved by medical policy committee on 3/30/15. Effective 1/1/16. Next review 2017 |
| 01/2017 | Removed ICD 9 codes, Updated ICD Codes added F32.89 deleted F32.8, Updated references, Updated formatting to align to BCBSA MPRM # 2.01.50 |
| 11/2018 | No changes to policy. Removed ICD-10-CM table. |
| 10/2020 | Reviewed by medical director and HPT. No substantive changes were made to policy, including no textual or coding changes. Removed references and left the Blue Cross Blue Shield Association TMS policy as sole reference. |

Eligible providers

Qualified healthcare professionals practicing within the scope of their license(s).

Approved by BCBSVT Medical Directors Date Approved

Joshua Plavin, MD, MPH, MBA
Chief Medical Officer

Kate McIntosh, MD, MBA, FAAP
Senior Medical Director

Attachment I CPT® Code List & Instructions

| Code Type | Number | Description | Policy Instructions |
|--|--------|---|-------------------------|
| The following codes will be considered as medically necessary when applicable criteria have been met. | | | |
| CPT® | 90867 | Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; initial, including cortical mapping, motor threshold determination, delivery and management | Prior Approval Required |
| CPT® | 90868 | Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; subsequent delivery and management, per session | Prior Approval Required |
| CPT® | 90869 | Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; subsequent motor threshold re-determination with delivery and management | Prior Approval Required |