SUBJECT: Transcranial Magnetic Stimulation

Prior approval is required for some or all procedure codes listed in this Corporate Medical Policy.

Definition: Transcranial magnetic stimulation (TMS) uses a brief and intense magnetic field within a coil resting on the scalp to painlessly penetrate human tissue and induce cortical neural activation or inhibition. Repetitive TMS (rTMS) involves the stimulation of the cortex by a series of magnetic pulses at frequencies between 1 to 20 Hz. TMS is used for the treatment of a variety of psychiatric disorders, especially depression. Unlike electroconvulsive therapy (ECT), TMS does not require anesthesia and it has not been associated with adverse memory effects.

Medical Necessity: The Company considers temporary transcranial magnetic stimulation (CPT Codes 90867, 90868, and 90869) medically necessary and eligible for reimbursement for the treatment of major depressive disorder, providing that all of the following medical criteria are met:

- Age 18 years or older; and
- Diagnosis of unipolar major depressive disorder; and
- Need for acute treatment; and
- Additional pharmacotherapy not warranted for at least ONE of the following reasons:
  - Failure to demonstrate clinically significant response despite adherence to trials of adequate duration and dosage of at least two pharmacologically different antidepressants with an augmenting agent added to at least one trial; or
  - Failure to tolerate at least two pharmacologically different antidepressants; or
  - Contraindicated due to pregnancy

Contraindications:

- Vagus nerve stimulator leads in the carotid sheath
- Other implanted stimulators controlled by or that use electrical or magnetic signals
• Conductive or ferromagnetic or other magnetic-sensitive metals implanted or embedded in head or neck within 11.81 inches (30 cm) of TMS coil placement other than dental fillings
• Acute or chronic psychotic symptoms
• Seizure disorder or history of seizure disorder
• Active substance use disorder
• Severe dementia

Treatment Plan:

• 36 standard repetitive TMS treatment sessions planned
• First treatment session includes determining correct magnetic pulse strength and placement of the magnetic coil
• Treatment 1x/day
• Treatment 5 days/week for 6 weeks
• Final treatment session tapered over 3 weeks to complete treatment
• Planned use of standardized rating scale by TMS provider for baseline measurement and to monitor response during treatment

Repeat course of TMS:

• Exactly 1 previous course of TMS treatment within the last year
• Clinically significant positive response to treatment

The Company considers transcranial magnetic stimulation investigational and not eligible for reimbursement for all other clinical conditions including, but not limited to, the following:

• Alzheimer's disease
• Amyotrophic lateral sclerosis
• Anxiety disorders
• Bipolar disorder
• Chronic and neuropathic pain syndromes
• Dystonia
• Eating disorders
• Epilepsy
• Migraine
• Obsessive-compulsive disorder
• Panic disorder
Medical Policy

- Parkinson disease
- Post-stroke disorders
- Post-traumatic stress disorder
- Schizophrenia
- Tinnitus
- Tourette’s Syndrome

NOTE: Transcranial magnetic stimulation is only approvable for unipolar major depressive disorder, and is NOT approvable for bipolar affective disorder in the depressive phase. Examples of other non-approvable uses include, but are not limited to, the following:

- Any form of proposed ‘maintenance TMS’
- Any TMS treatment frequency that is not consistent with current evidence, practice guidelines or FDA approved protocol

Documentation Requirements:

The Company reserves the right to request additional documentation as part of its coverage determination process. The Company may deny reimbursement when it has determined that the services performed were not medically necessary, investigational or experimental, not within the scope of benefits afforded to the member, and/or a pattern of billing or other practice has been found to be either inappropriate or excessive. Additional documentation supporting medical necessity for the services provided must be made available upon request to the Company. Documentation requested may include patient records, test results, and/or credentials of the provider ordering or performing a service. The Company also reserves the right to modify, revise, change, apply, and interpret this policy at its sole discretion, and the exercise of this discretion shall be final and binding.
Sources of Information:

- Daskalakis ZJ, Levinson AJ, Fitzgerald PB. Repetitive transcranial magnetic stimulation for major depressive disorder:


Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month...


• Zimmerman M, Martinez J, Attiullah N, et al. Further evidence that the cutoff to define remission on the 17-item Hamilton Depression Rating Scale should be lowered. Depress Anxiety. 2012;29(2):159-165.
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<th>Applicable Code(s):</th>
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<tbody>
<tr>
<td>CPT:</td>
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