Corporate Medical Policy
Electroconvulsive Therapy (ECT)

Description of Procedure or Service

ECT is a psychiatric treatment modality in which a generalized seizure is induced for therapeutic purposes. The number and frequency of treatments is guided by the patient’s clinical response. ECT has been a well-established, effective acute treatment option since its introduction in 1938. In the last decades, crucial innovations in administration of ECT including pulse shape, width, and electrode placement have increased the treatment’s efficacy while improving patient tolerability.

Policy Statement

GEHA will provide coverage for Electroconvulsive Therapy (ECT) when it is determined to be medically necessary because the medical criteria and guidelines as documented below have been demonstrated.

Benefit Application

Prior authorization is required and benefits are subject to all terms, limitations and conditions of the subscriber’s contract. Please refer to the Member’s Benefit Booklet for availability of benefits.

When Electroconvulsive Therapy is covered

GEHA considers ECT medically necessary for the treatment when the following are demonstrated:

A. The member has one of the following conditions:
   1. Major Depression
   2. Bipolar Disorder
   3. Mania
   4. Acute exacerbations of Schizophrenia
   5. Catatonia; and

B. The patient is at least 12 years old and meets at least one of the criteria below:
   1. Unresponsive to medications with demonstrable efficacy, given in adequate doses and duration, that are indicated for the member’s condition
   2. Unable to tolerate effective medications or has a medical condition for which medication is contraindicated
   3. Has had favorable responses to ECT in the past,
   4. Unable to safely wait until medication is effective during a life-threatening episode
   5. Severe mania or depression during pregnancy; or
   6. Prefers ECT as a treatment option in consultation with the psychiatrist.

When Electroconvulsive Therapy is not covered
A. GEHA considers ECT to be experimental and investigational for the following conditions based on peer reviewed medical literature:

1. Autism spectrum disorders
2. Body dysmorphic disorder
3. Complex regional pain syndrome
4. Dementia-associated agitation and aggression
5. Obsessive-compulsive disorder
6. Post-traumatic stress disorder
7. Refractory status epilepticus
8. Tardive dyskinesias/tardive syndromes
9. Tourette syndrome
10. Treatment-resistant schizophrenia
11. Addictive disorders such as methamphetamine addiction
12. Autoimmune encephalitis (e.g., anti-N-methyl-D-aspartate (NMDA) receptor encephalitis)
13. Drug resistant epilepsy
14. Eating disorders
15. Lennox-Gastaut syndrome
16. Self-injurious behaviors
17. Somatic symptom disorder

B. GEHA considers the following modifications to ECT experimental and investigational based on peer reviewed medical literature:

1. Concurrent use of ketamine
2. Ultrabrief ECT
3. Multiple monitored ECT (MMECT), where a patient undergoes ECT in the usual manner, but before regaining consciousness, undergoes another session of ECT designed to elicit a second seizure. The effectiveness of MMECT has not been established

Policy Guidelines

Outpatient mental health services such as ECT must be pre-authorized and meet criteria.

ECT may be contraindicated if there are any of the following:

1. Recent myocardial infarction or unstable cardiac conditions
2. Any illness that increases intracranial pressure (e.g., brain tumor)
3. Recent cerebral infarction, particularly hemorrhagic infarction
4. Aneurysm or vascular malformation
5. American Society of Anesthesiology physical status classification level 4 or 5
   a. Severe or life threatening pulmonary disease

Position Statements relating to Electroconvulsive therapy:

Origination Date:   Feb. 2017                       Peer Reviewed: April 2021                      Next Review Date:  April 2022
American Psychiatric Association (APA): Electroconvulsive Therapy (ECT) is a safe and effective evidence-based medical treatment. ECT is endorsed by the APA when administered by properly qualified psychiatrists for appropriately selected patients.

American Psychiatric Nurses Association: It is the position of the American Psychiatric Nurses Association that ECT is a proven therapy and that further clinical trials are not necessary to establish its safety and efficacy. APNA urges the FDA to classify these devices in an appropriate manner to assure that patients have access to ECT while at the same time assuring that ECT devices function safely and in manner intended. APNA believes that ECT operated by properly trained professionals and in circumstances of medical necessity offers patients with severe depression an option that would otherwise be unavailable.

World Health Organization states that ECT unmodified should be stopped.

The World Psychiatric Association (WPA) position statement on unmodified ECT has asked national member societies to implement modified ECT as the standard, placing the responsibility for this directive on governments, professional organizations, and individual practitioners. The WPA document asserts that where the necessary infrastructure exists, there is no excuse for the administration of unmodified ECT. However, the document accepts that, in settings when the choice is unmodified ECT or no ECT, case by case decisions can be made based on clinical factors, evidence, informed consent, and the consideration of alternative treatments.

Mental Health America Position Statement 34: Electroconvulsive Therapy (ECT) and Other Electromagnetic Brain Treatments:

In support of future electromagnetic interventions, MHA calls on:

- The federal government to continue to devote resources and partner with the private sector and academia to advance neural circuitry research and the opportunities for translational science it may bring; and

- Health insurer and the Centers for Medicare and Medicaid Services to provide transparency on under what circumstances they would cover new electromagnetic interventions and other interventions that may arise from neuroscience research, creating a stronger value proposition for investing in potential therapies in this area.

- Medicare< Medicaid and other third-party funders to consider withholding funding or requiring prior authorization for the use of sine wave stimulation.

Each state should assume an active monitoring role concerning use of electromagnetic brain treatments. States should collect data on:

- Demographic information
- Number of recipients
• Type of electromagnetic treatment administered including type of ECT (sine wave, bilateral pulse, unilateral pulse)

• Extent and use of tailoring

• Approval process for administering electromagnetic brain treatments

• Informed consent procedures used by treating facilities, and whether recipients are giving informed consent

• Numbers of injuries and adverse outcomes arising from the use of electromagnetic brain treatments

Each state also should assume a regulatory role concerning use of electromagnetic brain treatments. States should:

• Implement continuing education programs for physicians who administer electromagnetic brain treatments to ensure awareness and conformity with current standards

• Enact legislation ensuring informed consent for the use of electromagnetic brain treatments

• Implement special licensing requirements for physicians and facilities administering electromagnetic brain treatments

• Prohibit the administration of sine wave stimulation

• Each state should assume a regulatory role for obtaining informed consent to electromagnetic brain treatments to ensure that consent is not merely nominal

• Require an informed consent form specifically for electromagnetic brain treatments that articulates the risks and benefits

• Strengthen procedures to ensure that the recipient of the treatment has the judgment to give informed consent

• Require a consent process where a person other than the treating physician evaluates the potential recipient’s capacity to give informed consent and confirms that the appropriate information has been explained and understood

• Encourage the use of, and offer assistance in creating, advance directives

Each state should implement a judicial process for administration of electromagnetic brain treatments in instances when informed consent cannot be obtained. Judicial process for administration of electromagnetic brain treatments should contain the following procedural safeguards:

• A petition process that specifies the parameters of treatment sought

• A hearing before a neutral finder of fact

• An attorney to advocate for the individual

• Access to an independent expert
• Involvement of people (such as family members or others designated by the individual) to advocate on behalf of the individual weighing of risks and benefits of treatment

Physician documentation

For adequate review of any request for above noted procedure, an ECT request form must be submitted, utilizing the GEHA authorization form (www.geha.com), and include all of the following:

- Medical records of current evaluation, past medical history including tried and failed treatments. and
- Treatment plan including frequency and total number of sessions requested. and
- Detail of the requested procedure including specified codes and requested number of units.

The GEHA Authorization form for this service may be accessed:
https://www.geha.com/~/media/Files/Forms/Authorization-Forms/tmsectauthorization.pdf?la=en

Background

The primary indication for ECT is major depressive disorder. Electroconvulsive therapy is usually considered when medications fail, cannot be tolerated, or may be dangerous, but it is a first-line treatment for severely depressed patients who require a rapid response because of a high suicide or homicide risk, extreme agitation, life-threatening inanition, psychosis, or stupor. The average course of treatment for depression is 6 to 12 treatments.

ECT may be provided in an inpatient or outpatient setting, depending upon the patient’s health and mental status. Inpatient treatment may be advisable for the initial series, especially in the elderly, patients with medical co-morbidities, or depending on the severity of the psychiatric emergency. Subsequent treatments may be administered in an outpatient setting, and these may be clinically justifiable even in patients with medical illnesses.

Maintenance ECT may be indicated in patients who have a positive response to ECT but who relapse rapidly while on medications alone, or where ECT maintenance has been the most effective management in the past. The duration of maintenance treatment is dependent on patient response. Maintenance ECT involves getting treatments every two weeks to every month, usually for a period of six months to a year. But patients have gone on maintenance ECT for up to three years, depending on their response.

Electroconvulsive therapy has been found to be as or more effective than lithium in the treatment of manic episodes and is also a potential treatment for patients experiencing mixed episodes. It is generally reserved for those patients with bipolar disorder who are unable to safely wait until a medication becomes effective, who are not responsive to or unable to safely tolerate one of the effective medications, is preferred by the patient in consultation with the psychiatrist, or who have had a good response to ECT in the past. The number of ECT treatments reported to be effective for mania has ranged from 8 to 20.
Electroconvulsive therapy is not effective for chronic schizophrenia. However, ECT may be effective for psychotic schizophrenic exacerbations when affective symptomatology is prominent, in catatonic schizophrenia, and when there is a history of a prior favorable response to ECT. Schizophrenia may require 17 or more ECT treatments.

**Regulatory Status**

Administration (FDA) is issuing a final order to reclassify the electroconvulsive therapy (ECT) device for use in treating catatonia or a severe major depressive episode (MDE) associated with major depressive disorder (MDD) or bipolar disorder (BPD) in patients age 13 years and older who are treatment-resistant or who require a rapid response due to the severity of their psychiatric or medical condition, which is a pre-amendments class III device, into class II (special controls). FDA is also issuing this final order to require the filing of a premarket approval application (PMA) or a notice of completion of a product development protocol (PDP) for the pre-amendments class III ECT devices for all other uses that are not being reclassified to class II (product code GXC).

The following list of codes are intended for reference purposes only, is not an all-inclusive code listing, and does not imply that the service is covered or non-covered. Applicable codes include but are not limited to:

<table>
<thead>
<tr>
<th>CPT codes</th>
<th>Description</th>
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<tbody>
<tr>
<td>00104</td>
<td>Anesthesia for electroconvulsive therapy</td>
</tr>
<tr>
<td>90870</td>
<td>Electroconvulsive therapy (includes necessary monitoring) [not covered for ultrabrief bilateral electroconvulsive therapy]</td>
</tr>
</tbody>
</table>

**Scientific References**


Hayes Research Report: Ketamine as an Adjunct to Electroconvulsive Therapy for Treatment Resistant Depression. 2018

Jankovic J. Tourette Wang syndrome. UpToDate Inc., Waltham, MA. Last reviewed February 2015


Mental Health America. Position statement 34: Electroconvulsive therapy Call to Action. Retrieved from https://www.mentalhealthamerica.net/positions/ect


Policy implementation and updates

May 2020 Formatting changes. No coverage change.

May 2019 Formatting changes, updates to FDA regulation and addition of organizational position statements. No coverage changes.

May 2018 Formatting changes and minimal updates to content. No major coverage changes.

April 2021 Added the following coverage limitations: Autoimmune encephalitis (e.g., anti-N-methyl-D-aspartate (NMDA) receptor encephalitis), Drug resistant epilepsy, Eating disorders, Lennox-Gastaut syndrome, Self-injurious behaviors, Somatic symptom disorder