Medical Policy Reference Manual
Medical Policy

3.01.012A Electroconvulsive Therapy

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Description

Electroconvulsive Therapy (ECT) is a medical treatment most commonly used to treat patients with severe major depression, bipolar disorder or schizophrenia and schizoaffective disorders when one or more of the following are present: catatonia; high suicide risk; poor response to medications or when pharmacotherapy is unsafe and may result in significant adverse effects (e.g., pregnancy or elderly patients); uncontrolled mania; and compromised nutrition. ECT is performed under general anesthesia and involves a brief electrical stimulation of the brain to induce seizures. Risks primarily involve complications from anesthesia and cognitive dysfunction (i.e., disorientation and anterograde and retrograde amnesia). Medical clearance with appropriate pre-procedure testing are required prior to ECT. The procedure is contraindicated in patients with active heart disease, cerebrovascular disease, or increased intracranial pressures due to the higher risk for complications. A psychiatrist and an anesthesiologist or anesthetist are usually required to administer treatments. ECT may be administered either in an inpatient setting or outpatient setting. Treatment facilities must have treatment and recovery rooms appropriately equipped for cardiac and pulmonary emergencies. The American Psychological Association (APA) considers Electroconvulsive Therapy (ECT) to be "a safe and effective treatment evidence-based medical treatment" and is endorsed by the APA only when "administered by properly qualified psychiatrists for appropriately selected patients." (APA, 2015)

Policy

Electroconvulsive therapy **may be considered medically necessary** in patients 13 years of age and older for the treatment of major depressive disorder, bipolar disorder, or schizophrenia and schizoaffective disorders in patients meeting the criteria outlined in the Policy Guidelines.

Electroconvulsive therapy is considered **E/I** for all other indications including autism, dementia and Parkinson's disease because they do not meet TEC criteria #2-5 in the Policy Guidelines.

Policy Guidelines

Patients seeking ECT treatment for major depressive disorder, bipolar disorder, or schizophrenia and schizoaffective disorders must be medically cleared and have one (1) or more of the following clinical conditions:

- Catatonia
- High risk for suicide attempt
- Refractory to pharmacotherapy from at least two (2) classes of medications with evidence of sufficient duration and therapeutic dosage and documented compliance of prescribed regimen.
- Intractable manic excitement
- Neuroleptic malignant syndrome
- Inadequate dietary intake and/or poor nutritional status
- Pharmacotherapy contraindicated for conditions like pregnancy, age or documented intolerance.
- Continuous self-injury

Experimental/Investigational

The term "experimental/investigational" describes services or supplies that are in the developmental stage and are in the process of human or animal testing. Services or supplies that do not meet all 5 of the criteria listed below adopted

by the BlueCross BlueShield Association (BCBSA) Medical Policy Services (MPS) Assessment Criteria (formerly known as the TEC Criteria or "Technology Evaluation Center" criteria are deemed to be experimental/investigational):

1. The technology* must have final approval from the appropriate U.S. government regulatory bodies; and
2. The scientific evidence must permit conclusions concerning the effect of the technology on health outcomes; and
3. The technology must improve the net health outcome; and
4. The technology must be as beneficial as any established alternatives; and
5. The improvement must be attainable outside the investigational settings.

* Technology includes drugs, devices, processes, systems, or techniques

Rationale:

1. The technology* must have final approval from the appropriate U.S. government regulatory bodies

In 2018, the FDA modified the classification for Electroconvulsive Therapy Devices (ECT) from Class III to Class II with special controls for the treatment of catatonia or a severe major depressive episode associated with major depressive disorder (MDD) or bipolar disorder (BPD) in patients aged 13 years and older who are treatment-resistant or who require a rapid response treatment due to the severity of their psychiatric or medical condition. Devices not meeting FDA approved indications such as schizoaffective disorder and bipolar manic states are considered Class III devices.(FDA, 2018).

2. The scientific evidence must permit conclusions concerning the effect of the technology on health outcomes.

Eleven studies (N=216) comprised a systematic review evaluating the effectiveness of ECT for treatment of agitation in patients with dementia. These studies included case reports, case series, retrospective chart review, retrospective case control, and an open-label prospective study. The use of ECT maintenance therapy to decrease agitation in dementia patients was inconclusive as patients receiving the ECT treatment also were taking psychotropic pharmacotherapy medications. From the review, results from the studies were produced with inconsistent objective rating scales, inadequate follow-up, lack of a control group, small sample sizes, and publication bias. (MCG 2021) Validation of results from more prospective studies is needed per author guidance. ECT for Parkinson's Disease is very limited with only a small number of studies including a systematic review and meta-analysis of 5 randomized controlled trials (N=49) which examined the use of ECT in patients with Parkinson disease. Results from research fail to show improvement in motor dysfunction (MCG 2021).

3. The technology must improve the net health outcome

Fregni, F., et al (2005) reports in their systematic review that only a small number of studies (N=5) addressed ECT for Parkinson's disease and despite some positive results, the low number of trials constricts the ability to make definitive statements regarding the ECT as therapeutic treatment for PD and further relay that clinically meaningful outcomes for PD patients has not been established. For ECT to treat autism, low quality evidence mostly from case studies fails to provide a full analysis concerning the effect of the ECT treatment on health outcomes. Although case reports have shown that ECT treatment for autistic children, adolescents and young adults is safe and effective, studies fail to show long term data on health outcomes. High quality research in the form of random control trials and systematic reviews are needed. (MCG 2021). ECT for dementia has limited research. Of the available literature, a small (N=16) observational study reported that in dementia patients, ECT had a positive correlation to decreased agitation scores and increased function post treatment, however overall functioning (psychological, social, and occupational) was not impacted (MCG 2021).

4. The technology must be as effective as any established alternatives:

There is a lack of research comparing ECT to established alternatives. Therefore, it is not possible to determine whether ECT is as effective as established alternatives.

5. The improvement must be attainable outside the investigational settings.

A net health outcomes improvement has not been demonstrated for ECT in the investigational settings for neurologic conditions like autism, dementia, Parkinson's or for behavioral health indications not considered medically necessary. Therefore, it is not possible to determine whether an improvement outside of the investigational setting can be expected.

Benefit Applications

Check the member's contract for benefits. Managed care contracts require prior authorization for facility usage.

Provider Guidelines

The determination by the physician of the medical necessity of additional ECT beyond the prescribed **acute treatment** must include (1) the member's diagnosis and prognosis; (2) symptoms and objective findings, including partial positive response to acute ECT treatment; (3) the reason the additional sessions are required such as treatment reevaluation modification; and (4) the clinical response to an initial treatment with the device. The clinical response includes the ability to tolerate the treatment and a documented change from pretreatment symptoms. This information must be documented in the medical record.

Additionally, maintenance treatment for medically necessary indications must include documentation that 1) ECT is required to decrease relapse risk; 2) prescribed pharmacotherapy is optimized per therapeutic guidelines or patient has a documented intolerance and/or poor response to medication regimen and 3) prescribed maintenance must be tapered to lowest frequency that supports and maintains symptom reduction or relief.
Managed care contracts require Preauthorization for facility use. Providers should submit facility preauthorization requests online at provider.carefirst.com or call 1-866-773-2884 (1-866-PRE-AUTH).

Cross References to Related Policies and Procedures

3.01.010	Transcranial Magnetic Stimulation for Treatment of Depression and Other Psychiatric/Neurologic Disorders, Policy
5.01.040	Intravenous Infusion of Ketamine for the Treatment of Chronic pain and Major Depressive Disorder, Policy
7.01.075	Vagus Nerve Stimulation, Policy
9.01.001A	Anesthesia Services, Procedure
10.01.013A	Medical Record Documentation Standards, Procedure

References

The following were among the resources reviewed and considered in developing this policy. By reviewing and considering the resources, CareFirst does not in any way endorse the contents thereof nor assume any liability or responsibility in connection therewith. The opinions and conclusions of the authors of these resources are their own and may or may not be in agreement with those of CareFirst.

American Psychiatric Association. Depression. Retrieved on June 19, 2015 from http://www.psychiatry.org.mental-health/depression

American Psychiatric Association (APA). Retrieved on September 27, 2022 from https://psychiatry.org/about-apa/policy-finder/position-statement-on-electroconvulsive-therapy-(e

Fregni, F., et al (2005). Non-invasive brain stimulation for Parkinson's disease: a systematic review and meta-analysis of the literature. Journal of neurology, neurosurgery, and psychiatry, 76(12), 1614–1623. https://doi.org/10.1136/jnnp.2005.069849

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Van der Wurff, F. B., et al (2003). Electroconvulsive therapy for the depressed elderly. The Cochrane database of systematic reviews, 2003(2), CD003593. https://doi.org/10.1002/14651858.CD003593

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