Coverage Summary

Neurologic Services and Procedures

Approved by: UnitedHealthcare Medicare Benefit Interpretation Committee  Last Review Date: 11/19/2019

Related Medicare Advantage Policy Guidelines:
- Ambulatory EEG Monitoring (NCD 160.22)
- Long Term EEG Monitoring
- Multiple Electroconvulsive Therapy (MECT) (NCD 160.25)
- Vagus Nerve Stimulation (VNS) (NCD 160.18)

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The benefit information in this Coverage Summary is based on existing national coverage policy, however, Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable.

There are instances where this document may direct readers to a UnitedHealthcare Commercial Medical Policy, Medical Benefit Drug Policy, and/or Coverage Determination Guideline (CDG). In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence (Medicare IOM Pub. No. 100-16, Ch. 4, §90.5).

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I. COVERAGE

Coverage Statement: Diagnostic neurologic services and procedures are covered when Medicare
coverage criteria are met.

**Guidelines/Notes:**

1. **Surgically Induced Nerve Track**
   Surgically induced nerve track lesions to control pain are covered only when criteria are met. See the [NCD for Induced Lesions of Nerve Tracts (160.1)](https://www.accessed.com/11/2019). (Accessed November 7, 2019)

2. **Multiple-seizure Electroconvulsive Therapy**
   
   Note: Multiple-seizure electroconvulsive therapy has not been verified by scientifically controlled studies. In addition, studies have demonstrated an increased risk of adverse effects with multiple seizures. Accordingly, MECT cannot be considered reasonable and necessary and is not covered by the Medicare program.

3. **Invasive Intracranial Pressure Monitoring**

4. **Vagus Nerve Stimulation for Treatment of Seizures**
   Vagus nerve stimulation is covered. Vagus nerve stimulation is safe and effective treatment for patients with medically refractory partial onset seizures, for whom surgery is not recommended or for whom surgery has failed. Vagus nerve stimulation is not covered for patients with other types of seizure disorders which are medically refractory and for whom surgery is not recommended or for whom surgery has failed. See the [NCD for Vagus Nerve Stimulation for Treatment of Seizures (160.18)](https://www.accessed.com/11/2019). (Accessed November 7, 2019)
   
   For vagus nerve stimulation for resistant depression, see the Coverage Summary for Mental Health Services and Procedures.

5. Stereotaxic depth electrode implantation is covered prior to surgical treatment of focal epilepsy for patients who are unresponsive to anticonvulsant medications has been found both safe and effective for diagnosing resectable seizure foci that may go undetected by conventional scalp EEGs. See the [NCD for Stereotaxic Depth Electrode Implantation (160.5)](https://www.accessed.com/11/2019). (Accessed November 7, 2019)

6. **Electroencephalographic (EEG) Monitoring During Surgical Procedures Involving the Cerebral Vasculature**
   Electroencephalographic (EEG) monitoring is covered during surgical procedures involving the cerebral vasculature. See the [NCD for EEG for Monitoring During Surgical Procedures Involving the Cerebral Vasculature (160.8)](https://www.accessed.com/11/2019). (Accessed November 7, 2019)

7. **Ambulatory EEG Monitoring**
   Ambulatory EEG monitoring is covered for patients in whom a seizure diathesis is suspected but not defined by history, physical or resting EEG.
   

**Notes:**

- Ambulatory EEG should always be preceded by an awake and asleep resting EEG.
- Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist and
compliance with these policies is required where applicable. These LCDs/LCAs are available at http://www.cms.hhs.gov/mcd/index_local_alpha.asp?from=alphalmrp&letter=E. (Accessed November 7, 2019)

8. **Non-Ambulatory (Standard) EEG Monitoring and Video Recording**
   - Medicare does not have a National Coverage Determination (NCD for non-Ambulatory (standard) EEG Monitoring.
   - Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist and compliance with these policies is required where applicable. For state-specific LCDs/LCAs, see the LCD/LCA Availability Grid (Attachment B).
   - **For states with no LCDs/LCAs**, refer to the UnitedHealthcare Commercial Medical Policy for Electroencephalographic (EEG) Monitoring and Video Recording for coverage guideline.
   (IMPORTANT NOTE: After checking the LCD/LCA Availability Grid and searching the Medicare Coverage Database, if no state LCD/LCA is found, then use the above referenced policy.)
   - **Committee approval date**: November 19, 2019
   - Accessed January 3, 2020

9. **Intraoperative Neurophysiological Monitoring**: see the Coverage Summary for Neurophysiological Studies.

10. **Sensory Nerve Conduction Threshold Tests (sNCTs)**
    All uses of sNCTs to diagnose sensory neuropathies or radiculopathies are not covered. See the NCD for Sensory Nerve Conduction Threshold Tests (sNCTs) (160.23). (Accessed November 7, 2019)

11. **Electromyography (EMG) and Nerve Conduction Studies**
    - Medicare does not have a National Coverage Determination for Electromyography (EMG) and nerve conduction studies.
    - Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) **exist for all 50 states**. Compliance with these policies is required where applicable. For state-specific LCDs/LCAs, see the LCD/LCA Availability Grid (Attachment A).
    - **Committee approval date**: November 19, 2019
    - Accessed January 3, 2020

12. **Plagiocephaly and Craniosynostosis Treatment**
    - Medicare does not have a National Coverage Determination (NCD) for plagiocephaly and craniosynostosis treatment.
    - Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) do not exist at this time.
    - **For coverage guideline**, see the UnitedHealthcare Commercial Medical Policy for Plagiocephaly and Craniosynostosis Treatment.
    (IMPORTANT NOTE: After searching the Medicare Coverage Database, if no state LCD/LCA is found, then use the above referenced policy.)
    - **Committee approval date**: November 19, 2019
    - Accessed November 7, 2019
II. DEFINITIONS

None

III. REFERENCES

None

IV. REVISION HISTORY

11/19/2019

Guideline 4 (Vagus Nerve Stimulation for Treatment of Seizures)
- Removed language pertaining to vagus nerve stimulation for the treatment of resistant depression; added reference link to the Medicare Advantage Coverage Summary titled *Mental Health Services and Procedures* for applicable coverage guidelines

Guideline 6 [Electroencephalographic (EEG) Monitoring During Surgical Procedures Involving the Cerebral Vasculature]
- Changed guideline title; previously titled *Electroencephalographic (EEG) Monitoring*

Guideline 7 (Ambulatory EEG Monitoring)
- Changed guideline title; previously titled *Ambulatory or 24 hour EEG*
- Replaced reference to “ambulatory or 24 hour EEG (paper or digital interpretation)” with “ambulatory EEG monitoring”
- Removed notation pertaining to established digital EEG interpretation and EEG techniques

Guideline 8 [Non-Ambulatory (Standard) EEG Monitoring and Video Recording] (new to policy)
- Added coverage guidelines to indicate:
  - Medicare does not have a National Coverage Determination (NCD) for non-Ambulatory (standard) EEG Monitoring
  - Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist and compliance with these policies is required where applicable
    - For state-specific LCDs/LCAs, see *Attachment B: LCD Availability Grid for Standard or Non-Ambulatory EEG Monitoring*
    - For states with no LCDs/LCAs, refer to the UnitedHealthcare Commercial Medical Policy titled *Electroencephalographic (EEG) Monitoring and Video Recording* for applicable coverage guidelines

Definitions
- Removed definition of:
  - *Electroencephalographic (EEG) Monitoring*
  - *Sensory Nerve Conduction Test*
  - *Stereotaxic Depth Electrode Implantation*

Attachments
- Added Attachment B: LCD Availability Grid for Standard or Non-Ambulatory EEG Monitoring
- Updated LCD Availability Grid to reflect the most current reference links
## V. ATTACHMENTS

### Attachment A - LCD/LCA Availability Grid

**Electromyography (EMG) and Nerve Conduction Studies**

CMS website accessed February 19, 2020

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End of Attachment A

### Attachment B - LCD/LCA Availability Grid

**Standard or Non-Ambulatory EEG Monitoring**

CMS website accessed February 19, 2020

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End of Attachment B