

Subject: Vagus Nerve Stimulation for Epilepsy and Depression

Medical Policy #: 22.4

Status: Reviewed

Original Effective Date: 06/01/2006

Last Review Date: 11-16-2022

Disclaimer

Refer to the member's specific benefit plan and Schedule of Benefits to determine coverage. This may not be a benefit on all plans or the plan may have broader or more limited benefits than those listed in this Medical Policy.

Description

Vagus nerve stimulation (VNS) is used for the treatment of refractory epilepsy. A battery-powered generator is implanted under the skin of the left chest and an electrical lead (wire) is connected from the generator to the vagus nerve. Electrical signals are sent from the battery-powered generator to the vagus nerve via the lead. These signals are in turn sent to the brain.

Clinical evidence has shown that VNS is a safe and effective treatment for patients with medically refractory partial-onset seizures, for whom surgery has failed or is not an option. The aim of the adjunctive therapy is to reduce the frequency of seizures in adults and adolescents who have medically refractory, partial-onset seizures.

Coverage Determination

Prior Authorization is not required.

1. **For Treatment of Refractory Epilepsy:**

VNS devices used for refractory of partial onset seizures for whom surgery is not recommended or for whom surgery has failed is a covered service:

- A. Covered for **Commercial and Medicaid**. PHP follows MCG guideline # **A-0424**. Due to contractual restrictions, providers may not access the MCG website but may obtain a copy of the criteria from the Prior Authorization staff.
- B. Covered for **Medicare**. PHP follows NCD for Vagus Nerve Stimulation (VNS), (**160.18**) for patients with medically refractory partial onset seizures for whom surgery is not recommended or for whom surgery has failed.

2. **For Treatment of Resistant Depression (TRD):**

- A. Non-covered for **Commercial and Medicaid**. PHP follows MCG, Vagus Nerve Stimulation, Implantable: Behavioral Health Care, ORG: B-821-T (BHG). Due to contractual restrictions, providers may not access the MCG website but may obtain a copy of the criteria from the Prior Authorization staff
- B. Covered for **Medicare**. PHP follows **NCD 160.18** for VNS devices for treatment resistant depression (TRD) through Coverage with Evidence Development (CED)Development (CED).

Coding

The coding listed in this medical policy is for reference only. Covered and non-covered codes are within this list.

CPT & HCPCS	CPT listing for Medicaid and Commercial
61885	Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array.
61888	Revision or removal of cranial neurostimulator pulse generator or receiver
64553	Percutaneous implantation of neurostimulator electrode array; cranial nerve. (Not payable by NCD 160.18)
64568	Incision for implantation of cranial nerve neurostimulator electrode array and pulse generator.
64569	Revision or replacement of cranial nerve neurostimulator electrode array, including connection to existing pulse generator

CPT & HCPCS	CPT listing for Medicaid and Commercial
64570	Removal of cranial nerve (e.g., vagus nerve) neurostimulator electrode array and pulse generator
95970	Electronic analysis of implanted neurostimulator pulse generator/transmitter by physician or other qualified health care professional; with brain, cranial nerve, spinal cord, peripheral nerve, or sacral nerve, neurostimulator pulse generator/transmitter, without programming
95976	Electronic analysis of implanted neurostimulator pulse generator/transmitter by physician or other qualified health care professional; with simple cranial nerve neurostimulator pulse generator/transmitter programming by physician or other qualified health care professional
95977	Electronic analysis of implanted neurostimulator pulse generator/transmitter by physician or other qualified health care professional; with complex cranial nerve neurostimulator pulse generator/transmitter programming by physician or other qualified health care professional
C1767	Generator, neurostimulator (implantable), non-rechargeable
C1778	Lead, neurostimulator (implantable)
C1820	Generator, neurostimulator (implantable), non-high frequency with rechargeable battery and charging system
L8679	Implantable neurostimulator, pulse generator, any type
L8680	Implantable neurostimulator electrode, each
L8685	Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
L8686	Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687	Implantable neurostimulator pulse generator, dual array, rechargeable, includes
L8688	Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes

ICD -10	Covered Diagnosis for Commercial and Medicaid
G40.001 – G40.019	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable/not intractable, with/without status epilepticus
G40.101 – G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable/not intractable, with/without status epilepticus

CPT	CPT listing for Medicare
61885	Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array.
61886	Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to 2 or more electrode arrays
61888	Revision or removal of cranial neurostimulator pulse generator or receiver
64553	Percutaneous implantation of neurostimulator electrode array; cranial nerve
64568	Incision for implantation of cranial nerve neurostimulator electrode array and pulse generator.
64569	Revision or replacement of cranial nerve neurostimulator electrode array, including connection to existing pulse generator

Not every Presbyterian health plan contains the same benefits. Please refer to the member's specific benefit plan and Schedule of Benefits to determine coverage [MPMPPC051001]

CPT	CPT listing for Medicare
64570	Removal of cranial nerve (e.g., vagus nerve) neurostimulator electrode array and pulse generator.
95976	Electronic analysis of implanted neurostimulator pulse generator/transmitter by physician or other qualified health care professional; with simple cranial nerve neurostimulator pulse generator/transmitter programming by physician or other qualified health care professional.
95977	Electronic analysis of implanted neurostimulator pulse generator/transmitter by physician or other qualified health care professional; with complex cranial nerve neurostimulator pulse generator/transmitter programming by physician or other qualified health care professional.

ICD-10	Covered ICD-10 for Medicare
G40.011	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus
G40.019	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus
G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
G40.211	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus
G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus

Reviewed by / Approval Signatures

Clinical Quality & Utilization Mgmt. Committee: Gray Clarke MD

Senior Medical Director: David Yu MD

Medical Director: Ana Maria Rael MD

Date Approved: 11-16-2022

References

1. MCG Health, Ambulatory Care 26th Edition, Vagus Nerve Stimulation, Implantable, ACG: A-0424 (AC), Last update: 08-31-2022. [Cited 10-24-2022]
2. Hayes, VNS Therapy (LivaNova Inc.) for Seizure Control, Publication Date: March 16, 2018. Report Archived on: April 16, 2019. [Cited 10-24-2022].
3. Hayes, Vagus Nerve Stimulation for Epilepsy, ARCHIVED July 08, 2019. Annual review: May 25, 2018. [Cited 10-24-2022]
4. Hayes, Vagus Nerve Stimulation for Treatment Resistant Depression, Publication date: Jan 26/2022. [Cited 10-24-2022]
5. CMS, National Coverage Determination (NCD- [160.18](#)) for Vagus Nerve Stimulation (VNS), Effective Date of this Version: 02/15/2019 , Version 3. [Cited 10-24-2022]
6. CMS Manual System, Pub 100-20 One-Time Notification, <https://www.cms.gov/files/document/r11025otn.pdf>, Date September 28, 2021. [Cited 10-24-2022]
7. MCG -Vagus Nerve Stimulation, Implantable: Behavioral Health Care, ORG: B-821-T (BHG). Last updated 08-31-2022 [Cited 10-24-2022]

Publication History

06-01-06: Original effective date for Benefit Alert

Not every Presbyterian health plan contains the same benefits. Please refer to the member's specific benefit plan and Schedule of Benefits to determine coverage [MPMPPC051001]

- 11-18-09: Benefit Alert transitioned to Medical Policy
 01-18-12: Review and Revised
 01-30-13: Review and Revised
 01-29-14: Presbyterian Policy Retired
 01-29-14: Presbyterian now uses MCG Criteria A-0424
 05-25-16: Annual Review. MCG A-0424 accessed. Last Update 1/28/16. No changes.
 05-22-19: Annual Review. Noted future, upcoming changes to CMS NCD 160.18 for TRD coverage. No change in content of coverage for MCG.
- 11-18-20 Annual Review. Reviewed by PHP Medical Policy Committee on 10-14-2020. Coverage status changed: For Medicare members will now follow MCG N160.18v3 or NCD (160.18); changed Commercial and Medicaid to follow MCG A-0424 for treatment of Refractory Epilepsy. VNS is non-covered for Commercial and Medicaid for treatment of resistant depression (TRD) based on Hayes for treatment of resistant rapid cycling BPD and other payers consider this experimental. However, VNS will be covered for the treatment of TRD for Medicare only when furnished in a CMS approved CED study. Separate Tables were created to separate Medicare & Commercial from Medicare, since MCG and NCD (160.18) do not list CPT/HCPCS the same, also to avoid confusion. Removed erroneous HCPCS codes L8682 and L8683 from policy and added C1767 & C1778 to Medicaid and Commercial Table. Add CPT codes 61885, 64568, 64569, 64570, 95976, & 95977 to the Medicare Table. All listed codes will continue without PA. The following codes will be set to not pay: L8682, L8685, L8686, L8687, L8688, C1767, C1778 and 0466T for all LOB. Extended the name of title to include "for Epilepsy and Depression."
- 11-17-21 Annual review. Reviewed by PHP Medical Policy Committee on 11/03/2021
1. Refractory Epilepsy:
 - A. No change, non-Medicare will continue to follow MCG A-0424. Rationale: Hayes and other competitors (Aetna, Cigna, Humana and UHC) all support coverage for refractory epilepsy.
 - B. No change, Medicare will continue to follow the coverage statement in NCD 160.18 for refractory seizure.
 2. Treatment of Resistant Depression:
 - A. No change, continue no coverage for Medicaid and commercial. PHP will now follow MCG -Vagus Nerve Stimulation, Implantable: Behavioral Health Care, ORG: B-821-T (BHG). Rationale: Magellan, Hayes and competitors (Aetna, Cigna, Humana and UHC) considers treatment for resistant depression as experimental and investigational.
 - B. No change, Medicare will continue to follow NCD 160.18. VNS devices for treatment resistant depression (TRD) will be covered through Coverage with Evidence Development (CED). OPPOS HCPCS codes C1820 (Status-N- (see also MPM 7.2 & MPM 51.0(previously configured)), L8679 (status Indicator-N), L8680 (status indicator- E1). Codes L8679 and L8680 will be set to not pay for all product line, (L8679 also applies to MPM 7.2 and L8680 also applies MPM 51.0). New codes added to policy from (NCD 160.18): 61886, 61888 and 64553. Prior Authorization will continue to not be required for all codes listed in policy.
- 11-16-22 Annual review. Reviewed by PHP Medical Policy Committee on 10-28-2022. No change.
1. Refractory Epilepsy: No change. Covered benefit for non-Medicare will continue to follow MCG A-0424. Medicare will continue to follow NCD 160.18 for refractory seizure.
 2. Treatment of Resistant Depression: Continue non-coverage for Medicaid and commercial. Continue to follow MCG -Vagus Nerve Stimulation, Implantable: Behavioral Health Care, ORG: B-821-T (BHG). Medicare will continue to follow NCD 160.18. VNS devices for treatment resistant depression (TRD) will be covered through Coverage with Evidence Development (CED). Continue no PA requirement

This Medical Policy is intended to represent clinical guidelines describing medical appropriateness and is developed to assist Presbyterian Health Plan and Presbyterian Insurance Company, Inc. (Presbyterian) Health Services staff and Presbyterian medical directors in determination of coverage. The Medical Policy is not a treatment guide and should not be used as such. For those instances where a member does not meet the criteria described in these guidelines, additional information supporting medical necessity is welcome and may be utilized by the medical director in reviewing the case. Please note that all Presbyterian Medical Policies are available online at: [Click here for Medical Policies](#)

Web links:

At any time during your visit to this policy and find the source material web links has been updated, retired or superseded, PHP is not responsible for the continued viability of websites listed in this policy.

When PHP follows a particular guideline such as LCDs, NCDs, MCG, NCCN etc., for the purposes of determining coverage; it is expected providers maintain or have access to appropriate documentation when requested to support coverage. See the References section to view the source materials used to develop this resource document.