Policy Number	**RX504.015**
Policy Effective Date	**01/01/2026**
Policy End Date	**07/31/2026**

Levodopa-Carbidopa Enteral Suspension (e.g., Duopa) for the Treatment of Parkinson Disease

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Related Policies (if applicable)
None

Disclaimer

Medical policies are a set of written guidelines that support current standards of practice. They are based on current generally accepted standards of and developed by nonprofit professional association(s) for the relevant clinical specialty, third-party entities that develop treatment criteria, or other federal or state governmental agencies. A requested therapy must be proven effective for the relevant diagnosis or procedure. For drug therapy, the proposed dose, frequency and duration of therapy must be consistent with recommendations in at least one authoritative source. This medical policy is supported by FDA-approved labeling and/or nationally recognized authoritative references to major drug compendia, peer reviewed scientific literature and generally accepted standards of medical care. These references include, but are not limited to: MCG care guidelines, DrugDex (IIa level of evidence or higher), NCCN Guidelines (IIb level of evidence or higher), NCCN Compendia (IIb level of evidence or higher), professional society guidelines, and CMS coverage policy.

Carefully check state regulations and/or the member contract.

Each benefit plan, summary plan description or contract defines which services are covered, which services are excluded, and which services are subject to dollar caps or other limitations, conditions or exclusions. Members and their providers have the responsibility for consulting the member's benefit plan, summary plan description or contract to determine if there are any exclusions or other benefit limitations applicable to this service or supply. **If there is a discrepancy between a Medical Policy and a member's benefit plan, summary plan description or contract, the benefit plan, summary plan description or contract will govern.**

Legislative Mandates

EXCEPTION: For members residing in the state of Ohio, § 3923.60 requires any group or individual policy (Small, Mid-Market, Large Groups, Municipalities/Counties/Schools, State Employees, Fully Insured, PPO, HMO, POS, EPO) that covers prescription drugs to provide for the coverage of any drug approved by the U. S. Food and Drug Administration (FDA) when it is prescribed for a use recognized as safe and effective for the treatment of a given indication in one or more of the standard medical reference compendia adopted by the United States Department of Health and Human Services or in medical literature even if the FDA has not

approved the drug for that indication. Medical literature support is only satisfied when safety and efficacy has been confirmed in two articles from major peer reviewed professional medical journals that present data supporting the proposed off-label use or uses as generally safe and effective. Examples of accepted journals include, but are not limited to, Journal of American Medical Association (JAMA), New England Journal of Medicine (NEJM), and Lancet. Accepted study designs may include, but are not limited to, randomized, double blind, placebo controlled clinical trials. Evidence limited to case studies or case series is not sufficient to meet the standard of this criterion. Coverage is never required where the FDA has recognized a use to be contraindicated and coverage is not required for non-formulary drugs.

Coverage

This medical policy has become inactive as of the end date above. There is no current active version and this policy is not to be used for current claims adjudication or business purposes.

Levodopa-carbidopa enteral suspension (e.g., Duopa®) **may be considered medically necessary** for the treatment of motor fluctuations in individuals with advanced Parkinson's disease (PD), who meet ALL the following criteria:

- Presence of bradykinesia and at least one other cardinal PD feature (tremor, rigidity, postural instability); **AND**
- Levodopa-responsive with clearly defined "On" periods (See **NOTE** 1); **AND**
- Persistent motor complications with disabling "Off" periods (See **NOTE 2**) for a minimum of 3 hours/day despite optimal medical therapy with:
    a) Oral levodopa and carbidopa; **and**
    b) One agent from the following class;
        1. Catechol-O-methyl transferase (COMT) inhibitors; **or**
        2. Monoamine oxidase (MAO) B inhibitors; **or**
        3. Dopamine agonists.

NOTE 1: "On" periods refer to periods of adequate control of PD symptoms.
NOTE 2: "Off" periods refer to periods of the day when the medication is not working well, causing worsening of PD symptoms.

Levodopa-carbidopa enteral suspension **is considered experimental, investigational and/or unproven** for all other non-Food and Drug Administration approved indications, including but not limited to individuals with:

- Atypical Parkinson's disease ("Parkinson's Plus" syndrome); **or**
- Secondary Parkinson's disease; **or**
- Concurrent use with nonselective monoamine oxidase (MAO) inhibitors; **or**
- In individuals who are not candidates for percutaneous endoscopic gastrostomy-jejunal (PEGJ) tube placement or in patients where long-term use of a PEG-J is contraindicated; **or**
- When the above initial criteria are not met.

A pump for administering levodopa-carbidopa enteral suspension **may be considered medically necessary** durable medical equipment (DME) for persons who meet the criteria for levodopa-carbidopa enteral suspension.

Policy Guidelines

None.

Description

Parkinson's disease (PD) is a chronic, progressive neurodegenerative condition resulting from the death of the dopamine containing nerve cells in one of the movement control centers of the brain (substantia nigra). (3) Approximately 90,000 Americans are diagnosed with PD each year, and this number does not reflect the thousands of cases that go undetected. An estimated 10 million people worldwide are living with PD. There is a rising prevalence with age and a higher prevalence and incidence of PD in males. (4)

Some forms of PD have genetic or familial risk factors. PD can be either primary or secondary. Primary PD is referred to as idiopathic (having no known cause), while secondary PD is due to sources such as toxins, drugs and conditions. (5)

Parkinsonism is a general term used to describe the group of signs and symptoms similar to PD. Atypical parkinsonism includes a variety of neurological disorders including progressive supranuclear palsy (PSP), multiple system atrophy (MSA), cortico-basal degeneration (CBD), dementia with Lewy bodies (DLB), vascular parkinsonism, parkinsonism with no clear etiology, and parkinsonism-dementia-amyotrophic lateral sclerosis complex. Atypical parkinsonism shares some clinical features of PD, but the symptoms are caused not only by cell loss in the substantia nigra (the brain area most affected in classic PD), but also by additional degeneration of cells in the parts of the nervous system that normally contain dopamine receptors (striatum). Shared PD symptoms may include resting tremors, slowed movement, stiffness, gait difficulty and postural instability, but also include signs and symptoms that are not typically present in PD, hence the term "Parkinsonism plus syndrome." Individuals usually have a poor response or no response to levodopa which is a common feature to all forms of atypical parkinsonism. In contrast to typical PD, in which dopamine receptors are spared, patients with atypical parkinsonian disorders have lost their dopamine receptors and therefore they do not respond to levodopa as well as those with typical PD. Additional imaging studies may be helpful in differentiating parkinsonism from atypical parkinsonism. (5-8)

Making an accurate diagnosis of PD particularly in the early stages of the disease can be difficult as individuals present with the signs and symptoms associated with parkinsonism. Per the International Parkinson and Movement Disorder Society (MDS), to consider a diagnosis of PD the individual must have bradykinesia (slowness of movement) and 1 or more of the following symptoms: shaking or tremor in a limb that occurs while it is at rest, stiffness or rigidity of the

arms, legs, or trunk, or trouble with balance and falls. Although PD is predominantly a movement disorder, other impairments frequently develop including psychiatric problems such as depression and dementia. Autonomic disturbances and pain (which is rarely a presenting feature of PD) may later ensue, causing significant disability and handicap with impaired quality of life (QOL) for the affected individual. (3, 9)

Carbidopa/levodopa is the gold-standard medication for the treatment of motor symptoms in PD and is most often taken orally with Sinemet®. (10) As PD advances, carbidopa/levodopa becomes effective for shorter time periods, making it necessary for people to take the drug multiple times a day. Even then, people taking carbidopa/levodopa orally experience periods in which the drug "wears off," meaning levodopa levels in the blood may drop and the patients motor symptoms exacerbate prior to the next dose. These "off times" are particularly problematic in advanced PD because gastrointestinal (GI) issues delay the medication's ability to reach the small intestine, where the drug is absorbed. (11)

Regulatory Status
On January 09, 2015, Duopa® enteral suspension (AbbVie Inc.) was approved by the United States (U.S.) Food and Drug Administration (FDA) as an orphan drug. Duopa is an enteral suspension combination of levodopa and carbidopa and is indicated for the treatment of motor fluctuations in patients with advanced PD. Duopa is administered as a continuous 16-hour infusion into the jejunum through a percutaneous endoscopic gastrostomy-jejunal tube (PEG-J), using a CADD®-Legacy 1400 portable infusion pump. (1)

Rationale

This policy is based on the U.S. Food and Drug Administration (FDA) labeled indications Duopa® (carbidopa and levodopa) enteral suspension and review of coverage guidance from the Centers for Medicare and Medicaid Services (CMS).

Duopa® (carbidopa and levodopa) (1)
The efficacy of Duopa was established in a randomized, double-blind, double-dummy, active controlled, parallel group, 12-week study (Study 1) in patients with advanced Parkinson's disease who were levodopa-responsive and had persistent motor fluctuations while on treatment with oral immediate-release carbidopa-levodopa and other Parkinson's disease medications. Patients were eligible for participation in the studies if they were experiencing 3 hours or more of "Off" time on their current Parkinson's disease drug treatment and they demonstrated a clear responsiveness to treatment with levodopa. Seventy-one (71) patients enrolled in the study and 66 patients completed the treatment (3 patients discontinued treatment because of adverse reactions, 1 patient for lack of effect, and 1 patient for non-compliance).

Patients enrolled in this study had a mean age of 64 years and disease duration of 11 years. Most patients (89%) were taking at least one concomitant medication for Parkinson's disease

(e.g., dopaminergic agonist, COMT-inhibitor, MAO-B inhibitor) in addition to oral immediate-release carbidopa-levodopa. Thirty nine percent of patients were taking two or more of such concomitant medications.

Patients were randomized to either Duopa and placebo capsules or placebo suspension and oral immediate-release carbidopa-levodopa 25/100 mg capsules. Patients in both treatment arms had a PEG-J device placement. Duopa or placebo-suspension was infused over 16 hours daily through a PEG-J tube via the CADD® -Legacy 1400 model ambulatory infusion pump. The mean daily levodopa dose was 1117 mg/day in the Duopa group and 1351 mg/day in the oral immediate-release carbidopa-levodopa group.

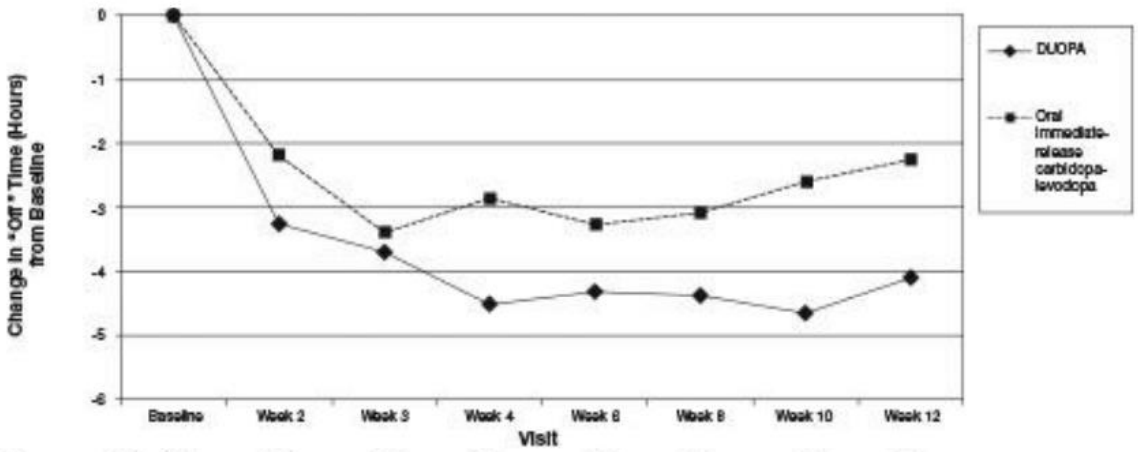
The clinical outcome measure in Study 1 was the mean change from baseline to Week 12 in the total daily mean “Off” time, based on a Parkinson's disease diary. The "Off" time was normalized to a 16-hour awake period, based on a typical person's waking day and the daily infusion duration of 16 hours. The mean score decrease (i.e., improvement) in “Off” time from baseline to Week 12 for Duopa was significantly greater (p=0.0015) than for oral immediate release carbidopa-levodopa. Additionally, the mean score increase (i.e., improvement) in “On” time without troublesome dyskinesia from baseline to Week 12 was significantly greater (p=0.0059) for Duopa than for oral immediate-release carbidopa-levodopa. The treatment difference (Duopa – oral immediate release carbidopa-levodopa) for decrease in “Off” time was approximately 1.9 hours and the treatment difference for the increase in “On” time without troublesome dyskinesia was approximately 1.9 hours. Results of Study 1 are shown in Table 1.

Table 1. Change from Baseline to Week 12 in "Off" Time and in "On" Time Without Troublesome Dyskinesia in Patients with Advanced Parkinson’s Disease

Treatment Group	Baseline (hours)	LS Mean Change from Baseline at Week 12 (hours)
"Off" time		
Oral immediate-release carbidopa-levodopa	6.9	-2.1
Duopa	6.3	-4.0*
"On" time without troublesome dyskinesia		
Oral immediate-release carbidopa-levodopa	8.0	2.2
Duopa	8.7	4.1*
LS Mean Change from Baseline based on Analysis of Covariance (ANCOVA). *=Statistically Significant.		

Figure 1 shows results over time according to treatment for the efficacy variable (change from baseline in “Off” time) that served as the clinical outcome measure at the end of the trial at 12 weeks.

Figure 1. Change in “Off” Time Over 12 Weeks



		Baseline	Week 2	Week 3	Week 4	Week 8	Week 9	Week 10	Week 12
DUOPA	(N)	35	33	34	35	35	35	33	35
Oral immediate-release carbidopa-levodopa	(N)	31	27	29	31	30	28	30	31

Coding

Procedure codes on Medical Policy documents are included **only** as a general reference tool for each policy. **They may not be all-inclusive.**

The presence or absence of procedure, service, supply, or device codes in a Medical Policy document has no relevance for determination of benefit coverage for members or reimbursement for providers. **Only the written coverage position in a Medical Policy should be used for such determinations.**

Benefit coverage determinations based on written Medical Policy coverage positions must include review of the member's benefit contract or Summary Plan Description (SPD) for defined coverage vs. non-coverage, benefit exclusions, and benefit limitations such as dollar or duration caps.

CPT Codes	None
HCPCS Codes	E0779, E0781, J7340

*Current Procedural Terminology (CPT®) ©2024 American Medical Association: Chicago, IL.

References

U.S. Food and Drug Administration Label:

1. Highlights of prescribing information: DUOPA® (carbidopa and levodopa) enteral suspension (5/2025). Available at <https://www.rxabbvie.com> (accessed December 15, 2025).

Local Coverage Determination:

2. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD) External Infusion Pumps L33794 (Revision 32). Available at <https://www.cms.hhs.gov> (accessed December 15, 2025).

Other:

3. Parkinson's Foundation. Understanding Parkinson's: What is Parkinson's. n.d. Available at <https://parkinson.org> (accessed December 15, 2025).
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6. Parkinson's Foundation. Parkinson's disease vs. parkinsonism (2018). Available at <https://parkinson.org> (accessed December 15, 2025).
7. Atypical Parkinsonism (Parkinson's Plus) (Nov 2023). Available at <https://pacificneuroscience.org> (accessed December 15, 2025).
8. Davis Phinney Foundation for Parkinson's. Parkinson's Vs. Parkinsonism (Jan 2020). Available at <https://davisphinneyfoundation.org> (accessed December 15, 2025).
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10. Parkinson's Foundation. Levadopa (2025). Available at <https://parkinson.org> (accessed December 15, 2025
11. Parkinson's Foundation. Managing Parkinson's mid-stride: A treatment guide to Parkinson's disease (2022). Available at <https://parkinson.org> (accessed December 15, 2025).

Centers for Medicare and Medicaid Services (CMS)

The information contained in this section is for informational purposes only. HCSC makes no representation as to the accuracy of this information. It is not to be used for claims adjudication for HCSC Plans.

The Centers for Medicare and Medicaid Services (CMS) does not have a national Medicare coverage position. Coverage may be subject to local carrier discretion.

A national coverage position for Medicare may have been developed since this medical policy document was written. See Medicare's National Coverage at <https://www.cms.hhs.gov>.

Policy History/Revision

Date	Description of Change
07/31/2026	Policy became inactive.
01/01/2026	Document updated. The following changes were made in Coverage: 1) Optimal medical therapy criteria updated, moving "dopamine agonists" from required use with oral levodopa and carbidopa, now included under criteria: b) One agent from the following class; and 2) Added "non-Food and Drug Administration approved" to existing experimental, investigational and/or unproven statement. Reference 2 added; others updated.
03/15/2025	Document updated with literature review. Coverage unchanged. Added references 5-7; others removed/updated.
03/15/2024	Reviewed. No changes

07/01/2023	Document updated with literature review. Coverage unchanged. Added references 14, 15; others removed.
01/01/2023	Reviewed. No changes
07/01/2021	Document updated with literature review. The following changes were made in Coverage: 1) Removed term “idiopathic” from the medically necessary statement for levodopa-carbidopa enteral suspension (e.g., Duopa®); 2) Removed note regarding Duopa contraindications and expanded the experimental, investigational and/or unproven statement to include: a) Concurrent use with nonselective monoamine oxidase (MAO) inhibitors, or b) In patients who are not candidates for percutaneous endoscopic gastrostomy-jejunal (PEG-J) tube placement or in patients where long-term use of a PEG-J is contraindicated; or c) when the above initial criteria are not met. 3) Removed asterisks and added “See NOTE 1” and “See Note 2”. Added references 4, 13, 14 and 16; others updated.
03/15/2020	Reviewed. No changes.
07/15/2018	Document updated with literature review. Coverage unchanged. Added references 1, 3-5, 11.
11/01/2016	Reviewed. No changes.
07/15/2015	New medical document. Levodopa-Carbidopa enteral suspension (e.g. Duopa) may be considered medically necessary for the treatment of motor fluctuations in individuals with advanced idiopathic Parkinson’s disease (PD), who meet all of the following criteria: 1) Presence of bradykinesia and at least one other cardinal PD feature (tremor, rigidity, postural instability); and 2) Levodopa responsive with clearly defined “On” periods*; and 3) Persistent motor complications with disabling “Off” periods** for a minimum of 3 hours/day despite optimal medical therapy with: a)Dopamine agonists; and b)Oral Levodopa and Carbidopa; and c)One agent from the following class; Catechol-O-methyl transferase (COMT) inhibitors; or Monoamine oxidase (MAO) B inhibitors. Levodopa-Carbidopa enteral suspension is considered experimental, investigational and/or unproven including but not limited to patients with: 1) Atypical Parkinson’s disease “Parkinson’s Plus” syndrome); or 2) Secondary Parkinson’s disease. Note added to reflect the following contraindications: 1) Duopa is contraindicated in patients taking nonselective monoamine oxidase (MAO) inhibitors, 2) in patients that are not candidates for percutaneous endoscopic gastro-jejunal (PEG-J) tube placement, and 3) in patients were long-term use of a PEG-J is contraindicated. A pump for administering Levodopa-Carbidopa enteral suspension may be considered medically necessary durable medical equipment (DME) for persons who meet the criteria for Levodopa-Carbidopa enteral suspension