Multiple sclerosis (MS) is an immune-mediated disease in which an abnormal response of the body's immune system is directed against the central nervous system, brain, spinal cord and optic nerves. In patients with MS, the immune system attacks myelin, the fatty substance that protects the nerve fibers. The attack causes the myelin to form scar tissue (sclerosis) and this scar tissue causes nerve impulses to become distorted or interrupted when traveling from the brain and spinal cord.1

MS can lead to multiple symptoms including visual impairment, motor dysfunction and weakness, difficulty with ambulation, gait disturbance and balance problems. Patients affected by MS may also experience sensory
disturbance, dizziness, bladder problems, acute transverse myelitis, and pain. The exact reason the immune cells are sensitized to attack is unknown, but MS is thought to be triggered by genetics in combination with one or more environmental factors.\textsuperscript{1,2,3}

There are an estimated 400,000 people in the United States affected with multiple sclerosis and more than 2.3 million people worldwide. It is a leading cause of disability in young adults. The majority of people diagnosed are between the ages of 20 and 50 however, the disease can occur at any age. MS is most common in women with as many as two to three times more women being affected than men. MS occurs in most ethnic groups but is most prevalent in Caucasians.\textsuperscript{1,2,4}

As for mortality, the life expectancy of otherwise healthy patients with MS in on average 7 to 14 years less than the national average. At least one half of deaths in patients with MS are directly attributed to complications of MS. The most common causes of death are infection, respiratory disease, cardiovascular disease, and suicide.\textsuperscript{3}

**Types of Multiple Sclerosis.** MS has shown to be an unpredictable disease with variable courses. Some patients experience only one or two acute episodes and never have further evidence of the disease. For others, the disease can be chronic, relapsing and progressive over the course of many years. Disease courses are categorized clinical subtypes, including relapsing-remitting MS, secondary progressive MS, and primary progressive MS.\textsuperscript{4}

**Relapsing-Remitting (RRMS).** Approximately 85 to 90 percent of cases of MS are categorized as relapsing-remitting at onset. This type of MS is characterized by clearly defined disease relapses with full or partial recovery. There is zero to minimal disease progression between disease relapses, but patients may experience residual disability following a relapse.\textsuperscript{2,3,4}

**Secondary Progressive (SPMS).** Secondary progressive multiple sclerosis begins as relapsing-remitting disease and usually occurs 10 to 20 years after disease onset. It develops in approximately 90 percent of patients and causes the greatest amount of neurologic disability. SPMS is characterized by progressive accumulation of disability after an initial RRMS disease course and occurs with or without occasional relapses, minor remissions, and plateaus. The transition from RRMS to SPMS is a gradual process and there are no established criteria or specific markers to determine when RRMS turns into SPMS. The diagnosis must be made retrospectively after a thorough review of patient history.\textsuperscript{2,3,4}

**Primary Progressive (PPMS).** PPMS represents about 10 percent of MS cases at disease onset and typically has a later age of onset. This type of MS is distributed evenly between men and women. It is characterized by progressive accumulation of disability from the start with no distinct relapses and has a higher rate of ultimate disability. Occasional plateaus, temporary minor improvements, or acute relapses still may occur with PPMS. Most commonly patients will present with spastic paraparesis and gait ataxia as well as enhancing lesions on MRI. PPMS shows less inflammatory activity and more pronounced neurodegenerative changes than RMS. The disease course of PPMS is often more severe and has more continuous and permanent deterioration of neurologic function. The diagnosis of PPMS is made exclusively on patient history with no exam findings to distinguish PPMS from any other type of MS.\textsuperscript{2,3,4} PPMS and SPMS can further be broken down in active with progression, active without progression, not active with progression and not active and without progression, stable disease. Disease progression and activity are determined by clinical relapse or MRI findings of new or growing lesions and degree of brain atrophy.\textsuperscript{2,3}

**Treatment.** There is currently no cure for multiple sclerosis and treatment is focused on managing symptoms and treating relapses. The goal of treatment is to reduce disease activity, prevent or decrease long term disability, and maintain healthy immune function. Despite the fact that there is no cure, it is important for a patient to receive therapeutic treatment to help avoid or lessen complications of the disease.\textsuperscript{2,4}

The most commonly used drugs for treating MS are immunosuppressant therapies and Disease-modifying therapies (DMTs). Because long term use of immunosuppressant therapy can be harmful to the patient, these drugs are best used as a short term solution to slow rapid disease progression. DMTs are drugs that target multiple disease pathways and can potentially slow the progression of MS. Evidence suggests that the earlier DMTs can be started, the greater the efficacy.\textsuperscript{2,4}
Ocrevus™. Ocrevus™ (ocrelizumab) was approved by the Food and Drug Administration (FDA) on March 28, 2017 and is the only FDA-approved agent for the management of patients with PPMS and RRMS. It is also the first DMT drug to demonstrate efficacy in reducing disability progression for PPMS in a placebo-controlled clinical trial.²

Ocrevus™ is administered via IV infusion. Initial dosing for Ocrevus™ is 300mg IV followed by a second 300mg IV two weeks later. Subsequent dosing is 600mg by IV every six months. It must be given in under close medical supervision with access to medical support in the case of an infusion reaction. It is recommended that the patient is pre-medicated with a glucocorticoid as well as an antihistamine prior to Ocrevus™ administration. An antipyretic can be added as well.⁴

Ocrevus™ is contraindicated in patients with active hepatitis B virus infection and all patients must be screened for hepatitis B virus prior to starting treatment with Ocrevus™. It is recommended that all patients should receive necessary immunizations at least six weeks prior to starting Ocrevus™ and live vaccines are not recommended during or after treatment until B-cell repletion occurs. If the patient has an active infection infusion should be delayed until the infection is resolved.⁴

Clinical studies showed the most common adverse events with Ocrevus™ were upper respiratory tract infections and infusion reactions. Few participants also experienced skin infections and lower respiratory tract infections.²,⁴

Clinical Trials. The ORATORIO trial was a double-blind, multicenter, placebo-controlled clinical trial. The trial consisted of 732 adult patients with PPMS. Participants were randomly assigned to treatment in a 2:1 ratio with intravenous ocrelizumab 600 mg (given as two 300 mg infusions 14 days apart) or placebo every 24 weeks for at least 120 weeks. All patients were pretreated with one dose of intravenous methylprednisolone (100 mg) before each infusion.⁴ The following findings were reported:

- Compared with placebo, participants who received ocrelizumab had reduced both 12-week confirmed disability progression, 33 percent versus 39 percent, and 24-week confirmed disability progression, 30 versus 36 percent.⁴
- Ocrelizumab also slowed deterioration from baseline to week 120 on the timed 25-foot walk. The average decline in performance was 39 percent, versus 55 percent with the placebo group. It also led to significant improvements on other endpoints, including change in MRI T2 lesion volume and whole brain volume loss.⁴

EDSS. The Expanded Disability Status Scale (EDSS) is a universal tool used to quantify disability in patients with MS. The EDSS ratings are then used in conjunction with observations and information concerning gait and use of assistive devices. The test uses a rating scale ranging from 0, normal neurologic examination, to a score of 10, death due to MS. Scores are made in half-point increments. Scores of 4 or higher depend on the patient’s ability to walk. The development of problems such as dementia, visual loss, and hand weakness may be undetected by EDSS scoring. Also, some factors of the EDSS may only be detected by one physician or may not impact the patient’s life as much as others. Because of this, it is recommended that other assessment tools be used in addition to EDSS to track a patient’s progress. EDSS scores are utilized primarily in clinical studies, especially clinical trials and have frequently been used as a component of the primary or secondary outcomes in clinical trials.³,⁵

POSITION STATEMENT

Applicable To:
- ☑ Medicaid – All Markets
- ☑ Medicare – All Markets

Exclusions

1. Active Hepatitis B infection.
Coverage

Initial Authorization (coverage duration 12 months)

The initial authorization of Ocrevus™ will be approved based on the following criteria:

1. Member is 18 years or older; **AND,**
2. Medication was prescribed by a neurologist; **AND,**
3. Member has one of the following diagnoses:
   A. Relapsing remitting multiple sclerosis; **OR,**
   B. Primary progressive multiple sclerosis

**AND,**

4. Member has had a negative Hepatitis B screening; **AND,**
5. Ocrevus™ will be administered in a medical facility; **AND,**
6. The starting dose is 300mg IV infusion followed two weeks later by a second 300mg IV infusion with subsequent doses being 600mg every 6 months; **AND,**
7. Member is current with recommended vaccines; **AND,**
8. Member has had Hepatitis B vaccine counseling

Continued Therapy (coverage duration 12 months)

The continued infusion of Ocrevus™ will be approved based on the following criteria:

1. Member is 18 years or older; **AND,**
2. Medication was prescribed by a neurologist; **AND,**
3. Member has documentation of clinical improvement, slowing of disease progression or slowing of functional disability (i.e. improvement or stable MRI findings or EDSS score); **AND,**
4. Ocrevus™ will be administered in a medical facility; **AND,**
5. Doses are 600mg IV every 6 months; **AND,**
6. Member is current with recommended vaccines; **AND,**
7. Member has had Hepatitis B vaccine counseling.

CODING

Covered CPT Codes – *This list may not be all inclusive*

- 96365 Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); initial, up to 1 hour
- 96366 Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); each additional hour (List separately in addition to code for primary procedure)

Covered HCPCS Code

- J2350 Injection, ocrelizumab, 1 mg

Covered ICD-10 Code

- G35 Multiple sclerosis
Coding information is provided for informational purposes only. The inclusion or omission of a CPT, HCPCS, or ICD-10 code does not imply member coverage or provider reimbursement. Consult the member’s benefits that are in place at time of service to determine coverage (or non-coverage) as well as applicable federal / state laws.

REFERENCES


MEDICAL POLICY COMMITTEE HISTORY AND REVISIONS

<table>
<thead>
<tr>
<th>Date</th>
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<tr>
<td>10/5/2017</td>
<td>• Approved by MPC. Removed requirement for EDSS scoring.</td>
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<tr>
<td>9/7/2017</td>
<td>• Approved by MPC. New.</td>
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