



**MS**  
**shouldn't**  
**make you**  
**question**  
**your plans**

**HAVE FEWER MAYBES.**

We invite you to learn more about why OCREVUS might be the right choice for treating your relapsing multiple sclerosis (MS).

**This guide is for people with relapsing MS**

\*First dose of OCREVUS is split—given as 2 separate infusions 2 weeks apart.

### **What is OCREVUS?**

OCREVUS is a prescription medicine used to treat adults with relapsing forms of multiple sclerosis.

It is not known if OCREVUS is safe or effective in children.

#### **Who should not receive OCREVUS?**

**Do not** receive OCREVUS if you have an active hepatitis B virus (HBV) infection.

**Do not** receive OCREVUS if you have had a life threatening allergic reaction to OCREVUS. Tell your healthcare provider if you have had an allergic reaction to OCREVUS or any of its ingredients in the past.

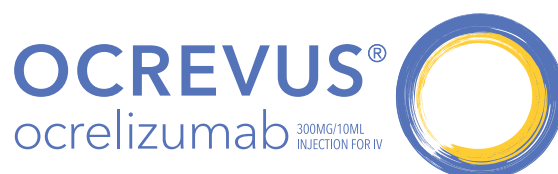
### **Important Safety Information**

#### **What is the most important information I should know about OCREVUS?**

**OCREVUS can cause serious side effects, including:**

- **Infusion reactions:** OCREVUS can cause infusion reactions that can be serious and require you to be hospitalized. You will be monitored during your infusion and for at least 1 hour after each infusion of OCREVUS for signs and symptoms of an infusion reaction.

Please see additional Important Safety Information on pages 21-24 and accompanying full Prescribing Information and Medication Guide.



# OCREVUS is the first and only treatment proven to work for both relapsing MS and primary progressive MS (PPMS).

## Important Safety Information for OCREVUS

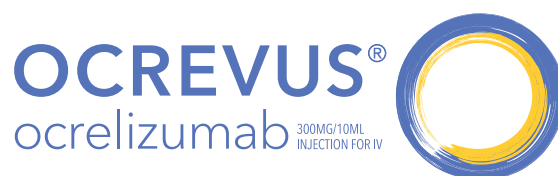
What is the most important information I should know about OCREVUS?

**OCREVUS can cause serious side effects, including:**

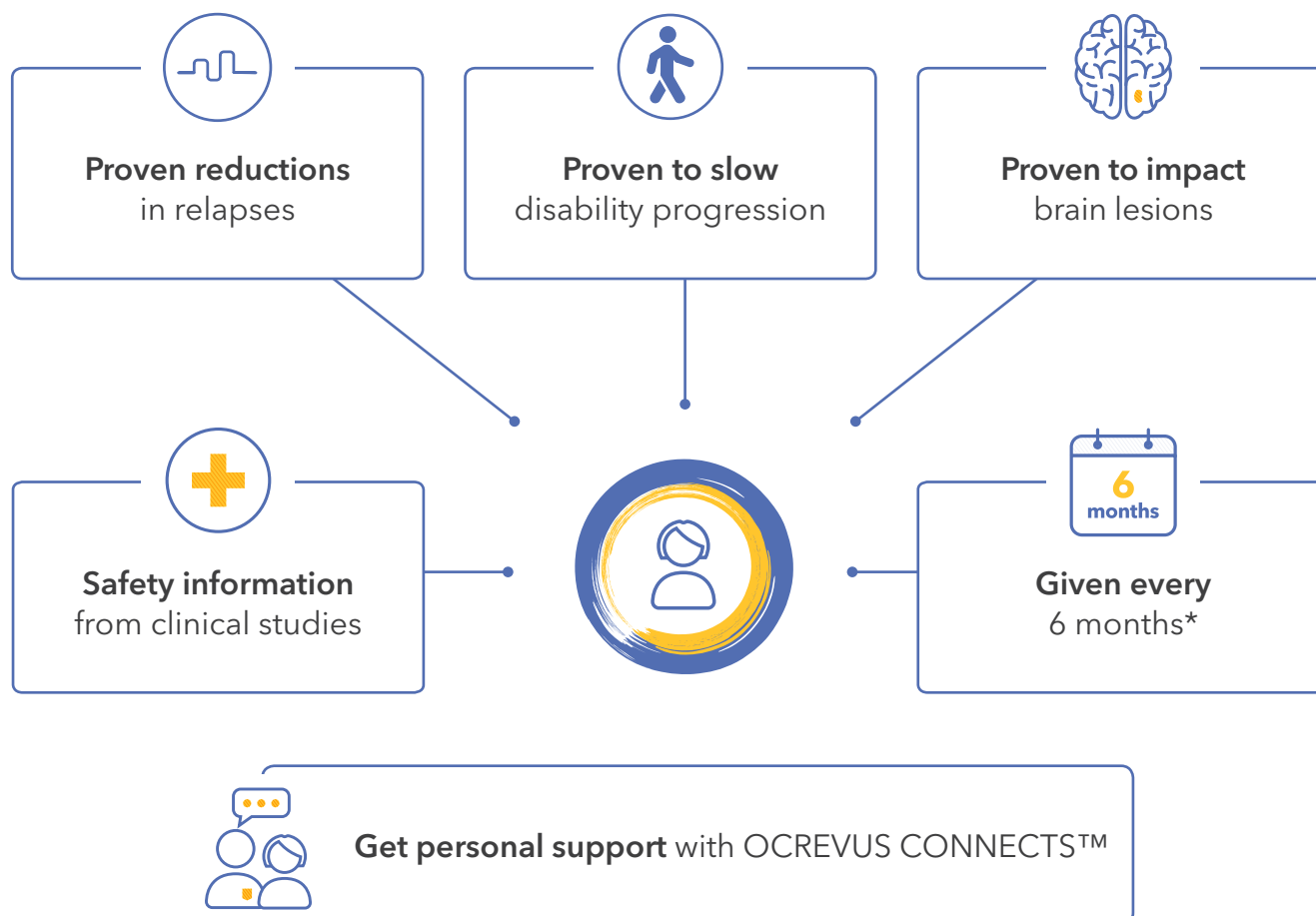
- **Infection:**

OCREVUS increases your risk of getting upper respiratory tract infections, lower respiratory tract infections, skin infections, and herpes infections. Tell your healthcare provider if you have an infection or have any of the following signs of infection including fever, chills, a cough that does not go away, or signs of herpes (such as cold sores, shingles, or genital sores). These signs can happen during treatment or after you have received your last dose of OCREVUS. If you have an active infection, your healthcare provider should delay your treatment with OCREVUS until your infection is gone.

Please see additional Important Safety Information on pages 21-24 and accompanying full Prescribing Information and Medication Guide.



## Proven in relapsing MS



## Have fewer maybes with OCREVUS

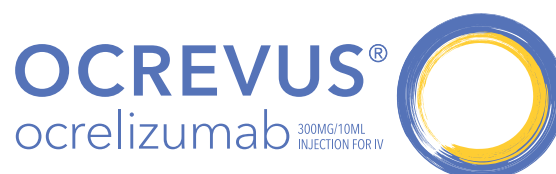
\*First dose of OCREVUS is split—given as 2 separate infusions 2 weeks apart.

### Important Safety Information for OCREVUS

Tell your healthcare provider if you:

- have ever taken, take, or plan to take medicines that affect your immune system, or other treatments for MS.
- have ever had hepatitis B or are a carrier of the hepatitis B virus.

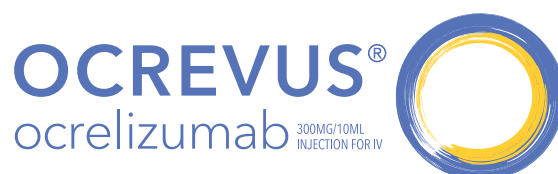
Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).



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Please see additional Important Safety Information on pages 21-24 and accompanying full Prescribing Information and Medication Guide.







## OCREVUS was proven in 2 large, identical clinical studies against REBIF®\*



### People included in the studies

A total of 1656 people  
(827 received OCREVUS,  
829 received REBIF)

18-55 years of age

The average time since diagnosis  
was about 4 years

People who had experienced  
≥2 relapses in last 2 years, or  
≥1 relapse in last year

Those who had T1  
gadolinium-enhancing (Gd+) lesions  
and/or T2 hyperintense lesions



### Why is this important?

Studied in a large number  
of people with relapsing MS

Studied in a range  
of people with MS

Studied in people  
who had active disease

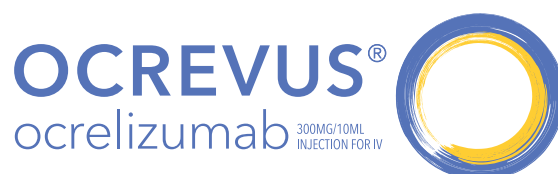
\*REBIF® is a registered trademark of EMD Serono, Inc.

## Important Safety Information for OCREVUS

### Tell your healthcare provider if you:

- have ever taken, take, or plan to take medicines that affect your immune system, or other treatments for MS.
- have ever had hepatitis B or are a carrier of the hepatitis B virus.

Please see additional Important Safety Information  
on pages 21-24 and accompanying full Prescribing  
Information and Medication Guide.





## OCREVUS was proven in 2 large, identical clinical studies against REBIF®\* (cont'd)

### OCREVUS was studied against a currently approved treatment for relapsing MS

OCREVUS was compared to REBIF, an active treatment currently approved for relapsing MS, not a placebo. A placebo is a substance or treatment that has no active medicine.

### So what does this mean for you in relapsing MS?

The 46% and 47% reductions in relapses seen with OCREVUS mean that relapses were nearly cut in half compared with REBIF, rather than a placebo.



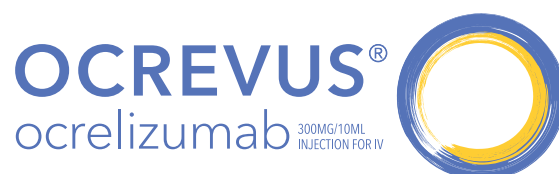
Talk with your healthcare provider today about OCREVUS or go to [OCREVUS.com](https://www.ocrevus.com) to learn more.

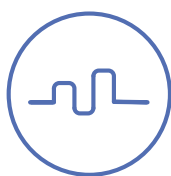
### Important Safety Information for OCREVUS

Tell your healthcare provider if you:

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- have ever had hepatitis B or are a carrier of the hepatitis B virus.

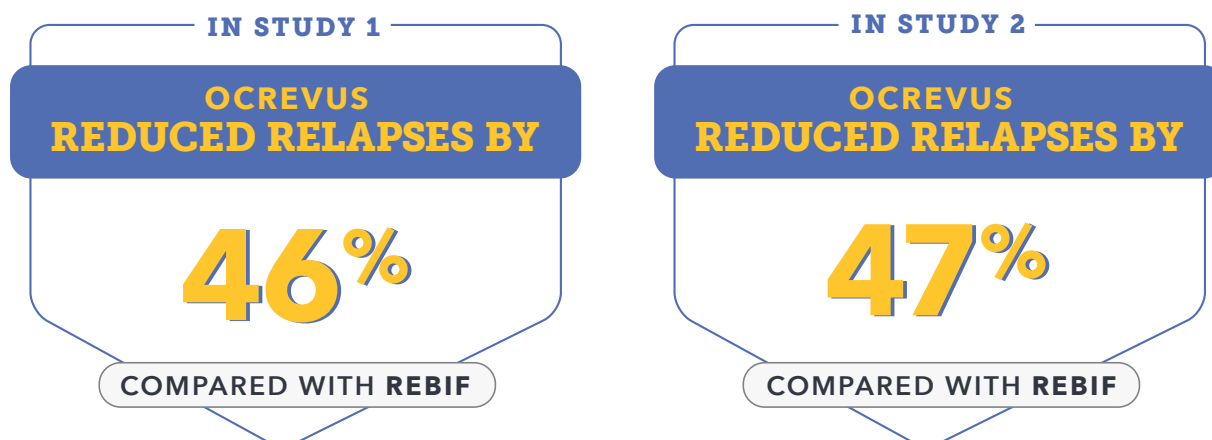
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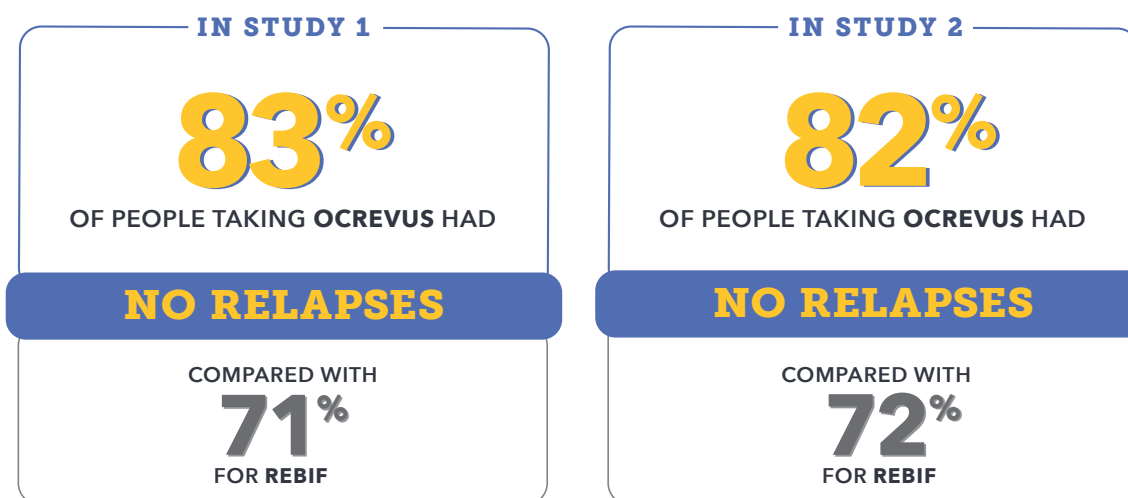


## Have fewer maybes— Proven superior reductions in relapses

OCREVUS cut relapses nearly in half compared with REBIF\*, in 2 clinical studies across 2 years



More people taking OCREVUS had no relapses compared with REBIF in 2 clinical studies across 2 years

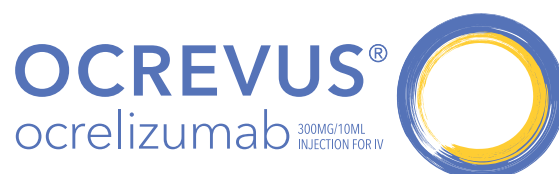


\*REBIF® is a registered trademark of EMD Serono, Inc.

### Important Safety Information for OCREVUS

- **Progressive Multifocal Leukoencephalopathy (PML):** Although no cases have been seen with OCREVUS treatment in clinical trials, PML may happen with OCREVUS. PML is a rare brain infection that usually leads to death or severe disability. Tell your healthcare provider right away if you have any new or worsening neurologic signs or symptoms. These may include problems with thinking, balance, eyesight, weakness on 1 side of your body, strength, or using your arms or legs.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).





## Have fewer maybes— Proven to slow disability progression

OCREVUS was better at slowing disability progression compared with REBIF\* across 2 years

PEOPLE TAKING OCREVUS WERE  
**40%** LESS LIKELY  
TO HAVE DISABILITY PROGRESSION THAN THOSE TAKING REBIF®†‡



- 9.8% of people taking OCREVUS had disability progression compared with 15.2% of those taking REBIF†

### OCREVUS also demonstrated an impact on disability improvement

33% more people taking OCREVUS had confirmed disability improvement in the combined results from 2 large studies, compared with those taking REBIF.§

\*REBIF® is a registered trademark of EMD Serono, Inc.

†Disability progression was measured using a tool called the Expanded Disability Status Scale (EDSS). Disability progression was confirmed 3 months after the initial neurological change.

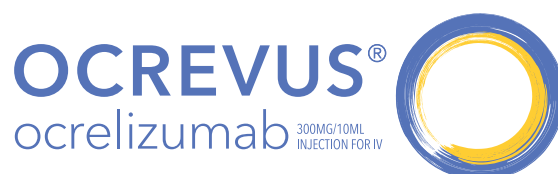
‡Disability progression was also confirmed after 6 months.

§Disability improvement was also measured using the EDSS and was confirmed after 3 months.

### Important Safety Information for OCREVUS

- **Hepatitis B virus (HBV) reactivation:** Before starting treatment with OCREVUS, your healthcare provider will do blood tests to check for hepatitis B viral infection. If you have ever had hepatitis B virus infection, the hepatitis B virus may become active again during or after treatment with OCREVUS. Hepatitis B virus becoming active again (called reactivation) may cause serious liver problems including liver failure or death. Your healthcare provider will monitor you if you are at risk for hepatitis B virus reactivation during treatment and after you stop receiving OCREVUS.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).

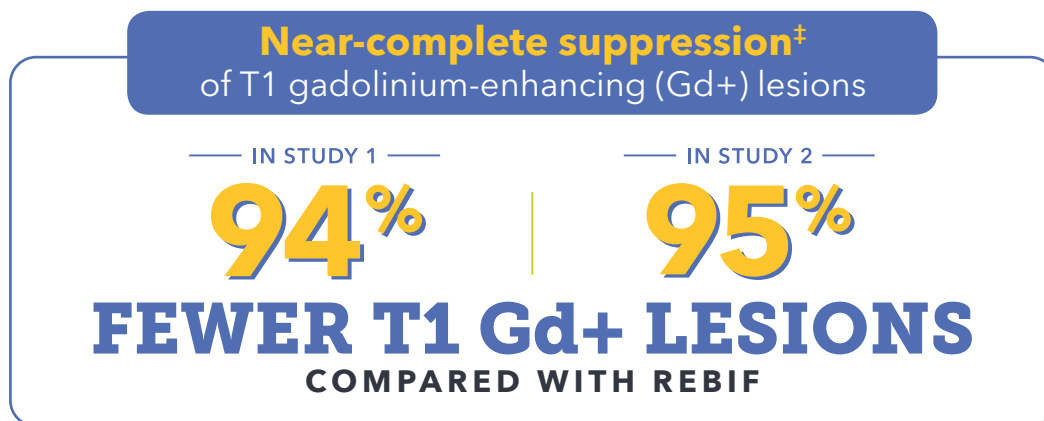






## Have fewer maybes— Proven to significantly impact brain lesions on MRIs

OCREVUS was consistently proven superior at reducing T1 lesions\* compared with REBIF† across 2 clinical studies



The average number of T1 Gd+ lesions per MRI was lower for OCREVUS:

- **Study 1: 0.016** lesions with OCREVUS compared with 0.286 lesions with REBIF
- **Study 2: 0.021** lesions with OCREVUS compared with 0.416 lesions with REBIF

\*T1 gadolinium-enhancing (Gd+) lesions.

†REBIF® is a registered trademark of EMD Serono, Inc.

‡The exact way OCREVUS works is not fully known.

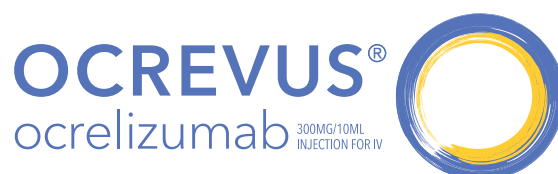
### Important Safety Information for OCREVUS

- **Weakened immune system:** OCREVUS taken before or after other medicines that weaken the immune system could increase your risk of getting infections.

#### Tell your healthcare provider if you:

- have had a recent vaccination or are scheduled to receive any vaccinations.
  - You should receive any required 'live' or 'live-attenuated' vaccines at least 4 weeks before you start treatment with OCREVUS. You should not receive certain vaccines (called 'live' or 'live attenuated' vaccines) while you are being treated with OCREVUS and until your healthcare provider tells you that your immune system is no longer weakened.

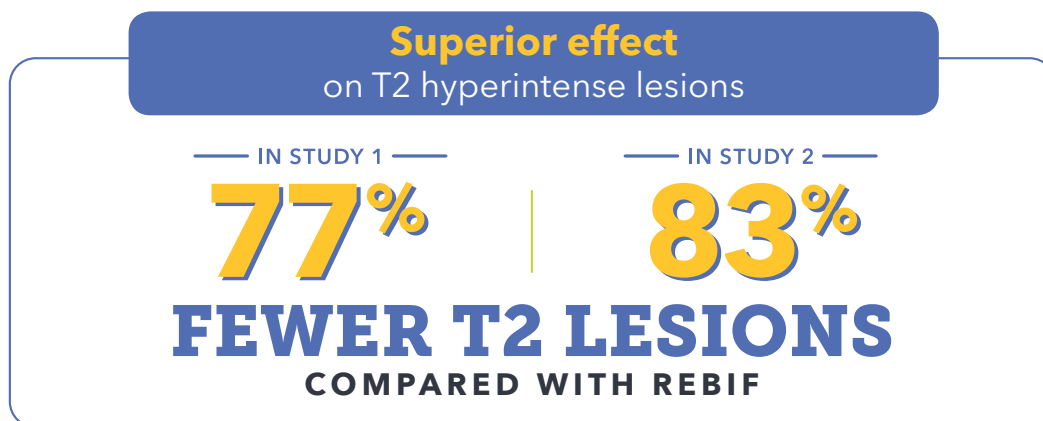
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## Have fewer maybes— Proven to significantly impact brain lesions on MRIs (cont'd)

OCREVUS had a consistently superior effect on T2 lesions\* compared with REBIF† in the same studies



The average number of new or enlarging T2 lesions per MRI was lower for OCREVUS:

- **Study 1:** 0.323 lesions with OCREVUS compared with 1.413 lesions with REBIF
- **Study 2:** 0.325 lesions with OCREVUS compared with 1.904 lesions with REBIF

### Lesions in MS

- T1 Gd+ lesions are thought to be a sign of active inflammation
- T2 hyperintense lesions may reflect new inflammation or older, chronic lesions (which are a sign of scarring from previous MS activity)

\*T2 hyperintense lesions.

†REBIF® is a registered trademark of EMD Serono, Inc.

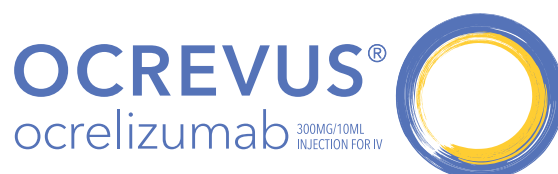
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  - You should receive any required 'live' or 'live-attenuated' vaccines at least 4 weeks before you start treatment with OCREVUS. You should not receive certain vaccines (called 'live' or 'live attenuated' vaccines) while you are being treated with OCREVUS and until your healthcare provider tells you that your immune system is no longer weakened.

Please see additional Important Safety Information on pages 21-24 and accompanying full Prescribing Information and Medication Guide.





## Additional data in the OCREVUS clinical studies

Another outcome called NEDA was measured in the OCREVUS studies

### What is No Evidence of Disease Activity (NEDA)?

- No relapses
- No disability progression
- No T1 Gd+ or new T2 lesions

The results listed below for NEDA in the OCREVUS clinical studies did not achieve statistical significance. This means that the studies did not prove whether the results for NEDA were due to treatment with OCREVUS, or happened by chance. Therefore, no definite conclusions about NEDA can be arrived at from these results.

### In 2 clinical studies over 2 years

- **Study 1: 48% of people taking OCREVUS** had no evidence of disease activity compared with **29% with REBIF®\***
- **Study 2: 48% of people taking OCREVUS** had no evidence of disease activity compared with **25% with REBIF**

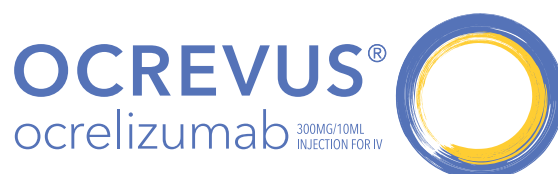
\*REBIF® is a registered trademark of EMD Serono, Inc.

### Important Safety Information for OCREVUS

#### Tell your healthcare provider if you:

- are pregnant, think that you might be pregnant, or plan to become pregnant. It is not known if OCREVUS will harm your unborn baby. You should use birth control (contraception) during treatment with OCREVUS and for 6 months after your last infusion of OCREVUS.
- are breastfeeding or plan to breastfeed. It is not known if OCREVUS passes into your breast milk. Talk to your healthcare provider about the best way to feed your baby if you take OCREVUS.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).

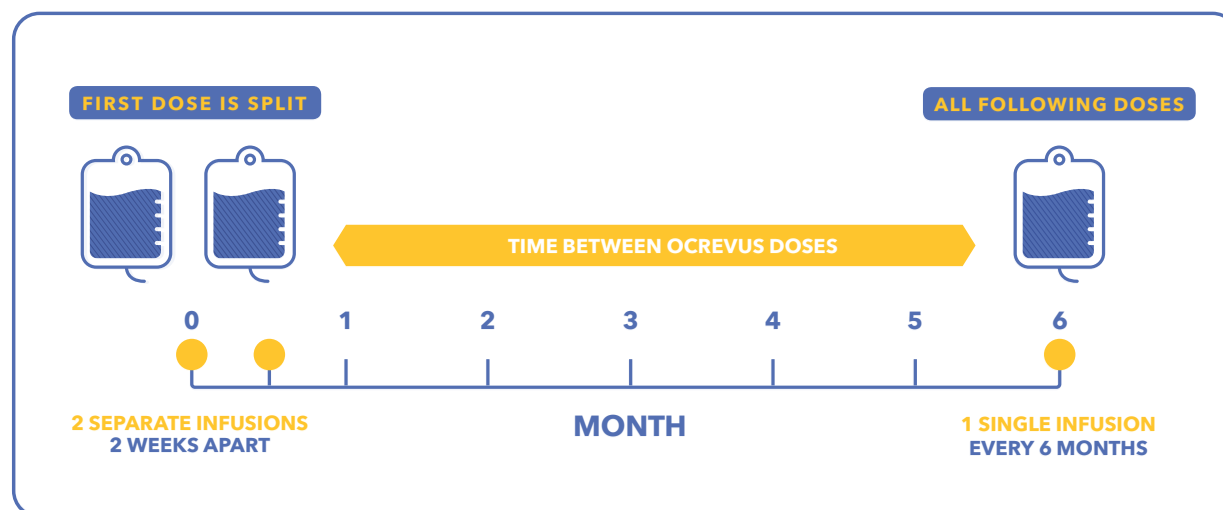




## OCREVUS is given every 6 months

### Treatment is given every 6 months as an IV infusion

- Your first dose of OCREVUS will be given as 2 separate infusions 2 weeks apart. These will last about 2.5 hours each
- Every dose after your first will be given as 1 single infusion 6 months apart, lasting about 3.5 hours
- The length of infusion could be longer if an infusion reaction occurs
- Before each infusion of OCREVUS you will receive corticosteroids and an antihistamine to help reduce infusion reactions
- OCREVUS should be given under the close supervision of an experienced healthcare provider with access to appropriate medical support to manage severe reactions such as serious infusion reactions

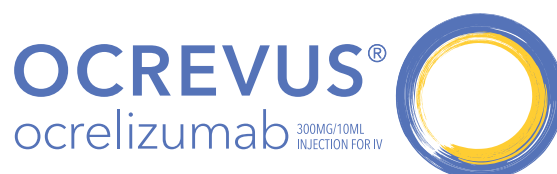


### Important Safety Information for OCREVUS

Tell your healthcare provider if you:

- have ever taken, take, or plan to take medicines that affect your immune system, or other treatments for MS.
- have ever had hepatitis B or are a carrier of the hepatitis B virus.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).







## OCREVUS is given every 6 months (cont'd)

### Dosing for relapsing MS treatments

This is not a complete list of all the available treatments for MS. For more information, talk to your healthcare provider.

#### MS treatment option and frequency of treatment

##### OCREVUS (ocrelizumab)

First dose is split and given as 2 separate IV infusions; every dose after is once every 6 months

#### First year total



x 3

##### Tysabri® (natalizumab)

1 infusion every 4 weeks



x 13

##### Aubagio® (teriflunomide)

1 pill, once a day



x 365

##### Tecfidera® (dimethyl fumarate)

1 pill, twice a day



x 730

##### Gilenya® (fingolimod)

1 pill, once a day



x 365

##### Copaxone® (glatiramer acetate injection)

Every day or 3 times per week, depending on dose



x 365 or 156

##### REBIF® (interferon beta-1a)

3 injections per week



x 156

##### Avonex® (interferon beta-1a)

1 injection per week



x 52

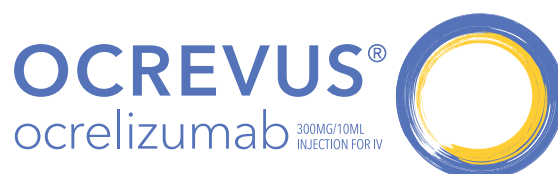
Trademarks are the property of their respective owners.

### Important Safety Information for OCREVUS

#### Tell your healthcare provider if you:

- have ever taken, take, or plan to take medicines that affect your immune system, or other treatments for MS.
- have ever had hepatitis B or are a carrier of the hepatitis B virus.

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# Getting started with OCREVUS

## What to expect during the infusion

With OCREVUS, your doctor or nurse will walk you through the process and answer any questions you may have.

The location where you'll receive your infusion will be determined—it may be at your doctor's office or an infusion center.

You can use the following information to help get ready for your infusion.

### PREPARING FOR YOUR INFUSION



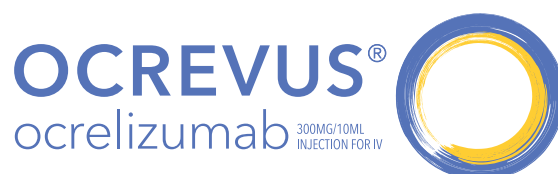
1. Keep a list of your medications handy.
2. Bring items you enjoy to help keep you occupied, like a laptop/tablet, games, or books.
3. Wear comfortable, loose-fitting clothing.
4. Make a list of questions for your healthcare team.
5. Before you leave, be sure to schedule your next infusion appointment.

## Important Safety Information for OCREVUS

**OCREVUS can cause serious side effects, including:**

- **Infusion reactions:** OCREVUS can cause infusion-related reactions that can be serious and require you to be hospitalized. You will be monitored during your infusion and for at least 1 hour after each infusion of OCREVUS for signs and symptoms of an infusion reaction.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).





## Getting started with OCREVUS (cont'd)

There are a few steps to the infusion process



### STEP 1

Before each infusion of OCREVUS, you will be

- Checked for an active infection
- Given medication to help reduce infusion reactions
  - Corticosteroids around 30 minutes prior to your infusion
  - An antihistamine approximately 30-60 minutes prior to your infusion



### STEP 2

You'll receive OCREVUS as an IV infusion. To get started on OCREVUS, your first dose will be given as 2 separate IV infusions 2 weeks apart. Each infusion will last about 2.5 hours.\*



### STEP 3

Everyone who receives OCREVUS will be asked to stay at the infusion center for at least an hour following treatment. This is so the healthcare team can be with you to make sure you're doing well and aren't experiencing side effects.



Once you're done with your first dose, which is given as 2 separate infusions, your next visit won't be for another 6 months.

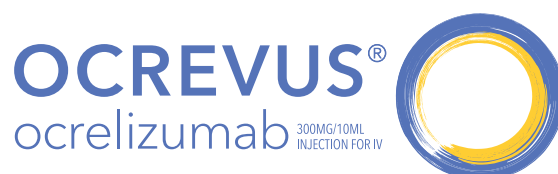
\*The length of infusion could be longer if an infusion reaction occurs.

## Important Safety Information for OCREVUS

**OCREVUS can cause serious side effects, including:**

- **Infusion reactions:** OCREVUS can cause infusion reactions that can be serious and require you to be hospitalized. You will be monitored during your infusion and for at least 1 hour after each infusion of OCREVUS for signs and symptoms of an infusion reaction.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).





## Safety considerations for OCREVUS

### Infusion reactions are a common side effect with OCREVUS

- In clinical studies all people received premedications for infusion reactions before treatment with OCREVUS. In these studies the rate of infusion reactions was 34-40%

### When to look out for infusion reactions

Infusion reactions can occur within 24 hours of receiving an infusion with OCREVUS.

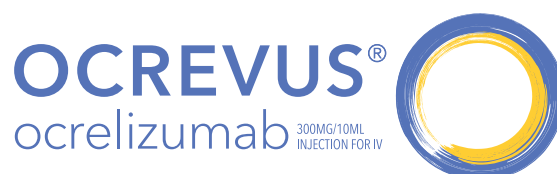
### Symptoms of infusion reactions

Tell your healthcare provider or nurse if you get any of these symptoms:

- itchy skin
- rash
- hives
- tiredness
- coughing or wheezing
- trouble breathing
- throat irritation or pain
- feeling faint
- fever
- redness on your face (flushing)
- nausea
- headache
- swelling of the throat
- dizziness
- shortness of breath
- fatigue
- fast heart beat

**OCREVUS could cause serious side effects. Please see additional safety information on pages 21-24.**

Please see additional **Important Safety Information** on pages 21-24 and accompanying full **Prescribing Information** and **Medication Guide**.

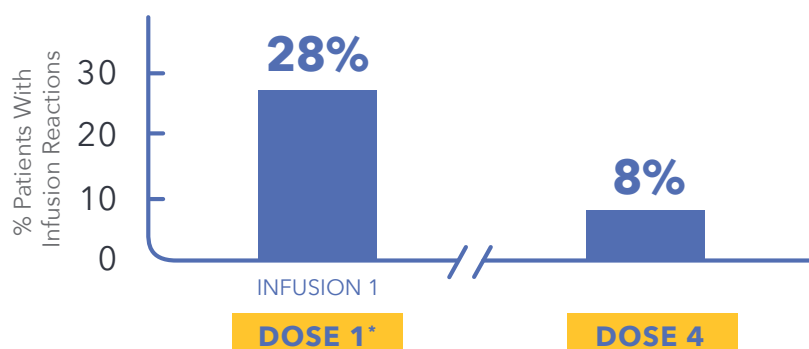






## Safety considerations for OCREVUS (cont'd)

### Infusion reactions over time



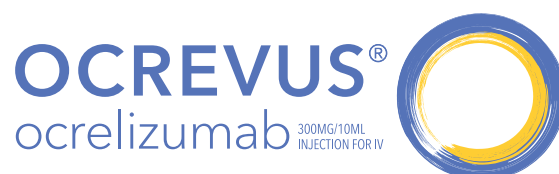
- In clinical studies, these reactions were highest at the first dose

### Infusion reactions at time of infusion

- Infusion reactions were most common during and within an hour after the infusion
- Most infusion reactions were mild to moderate, and treatable with infusion adjustments and medicines to help with the reactions
- OCREVUS can cause infusion reactions that can be serious and require you to be hospitalized

\*The first dose of OCREVUS is split—given as 2 separate infusions 2 weeks apart. All following doses are given as 1 single infusion every 6 months.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).





## Additional safety considerations for OCREVUS

### What to know about infections

- Infections are one of the most common side effects with OCREVUS
- Tell your healthcare provider if you have an infection or have any of the following signs of infection, including fever, chills, a cough that does not go away, or signs of herpes. These signs can happen during treatment or after you have received your last dose of OCREVUS
- OCREVUS increases your risk of getting certain infections, such as upper respiratory tract infections, lower respiratory tract infections, skin infections, and herpes infections
- OCREVUS was not associated with an increased risk of serious infections
- Although no cases have been seen with OCREVUS treatment in clinical studies, Progressive Multifocal Leukoencephalopathy (PML) may happen with OCREVUS. PML is a rare brain infection that usually leads to death or severe disability

### Hepatitis B screening before starting OCREVUS

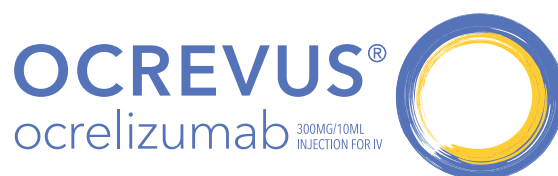
- There were no reports of hepatitis B becoming active again (reactivation) in people treated with OCREVUS in MS clinical studies; however, if you have ever had hepatitis B virus infection, the hepatitis B virus may become active again during or after treatment with OCREVUS
- Hepatitis B screening should occur before you receive OCREVUS. Do not take OCREVUS if you have an active HBV infection

### Cancer screening and your healthcare routine

- An increased risk of malignancy may exist
- In 3 studies with OCREVUS, 6 out of 781 women treated with OCREVUS developed breast cancer (2 people with relapsing MS and 4 people with PPMS) vs none in the comparators (REBIF®\* in the relapsing MS studies and placebo in the PPMS study)
- Further safety assessments are ongoing. Talk with your healthcare provider about your risk of cancer. Follow your healthcare provider's instructions about standard screening guidelines for breast cancer

\*REBIF® is a registered trademark of EMD Serono, Inc.

Please see additional **Important Safety Information** on pages 21-24 and accompanying full **Prescribing Information** and **Medication Guide**.





## How OCREVUS may work

### In the body

- The **central nervous system** (the brain and spinal cord) carries signals to and from the rest of the body via nerve cells. These signals allow us to move, see, and sense things
- The **immune system** uses many types of cells, including B cells and T cells, to help the body fight infections caused by viruses or bacteria

### MS is thought to affect both the central nervous system and the immune system

- The immune system behaves abnormally in MS. Instead of fighting infections, some B cells and T cells are misdirected to attack myelin (the fatty sheath that protects nerves and helps maintain the signals carried by the nerves)

Until recently, scientists have focused on T cells as a primary target in treating MS. But many scientists now agree that both B cells and T cells play important roles.

### OCREVUS is thought to work differently than other MS therapies

- OCREVUS was designed to target certain types of B cells
- The exact way OCREVUS works is not fully known

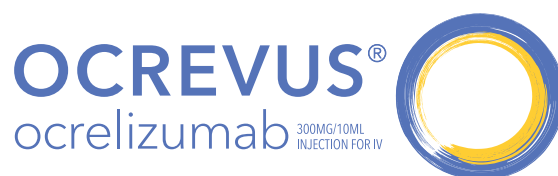
## Important Safety Information for OCREVUS

### What are the possible side effects of OCREVUS?

OCREVUS may cause serious side effects, including:

- **Risk of cancers (malignancies) including breast cancer.** Follow your healthcare provider's instructions about standard screening guidelines for breast cancer.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).





## Only OCREVUS works in 2 different types of MS

### What is the difference between relapsing MS and primary progressive multiple sclerosis (PPMS)?

**Relapsing MS** is the most common form of the disease and is associated with clearly defined flare-ups of new or increasing neurologic symptoms. These flare-ups are called relapses.

**PPMS** is a more rare form of MS identified by worsening neurologic function as soon as symptoms appear, without early relapses or remissions.

#### Did you know?

Relapsing MS does not change into PPMS.

### Important Safety Information for OCREVUS

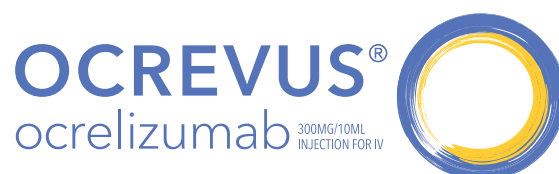
What is the most important information I should know about OCREVUS?

**OCREVUS can cause serious side effects, including:**

- **Infection:**

OCREVUS increases your risk of getting upper respiratory tract infections, lower respiratory tract infections, skin infections, and herpes infections. Tell your healthcare provider if you have an infection or have any of the following signs of infection including fever, chills, a cough that does not go away, or signs of herpes (such as cold sores, shingles, or genital sores). These signs can happen during treatment or after you have received your last dose of OCREVUS. If you have an active infection, your healthcare provider should delay your treatment with OCREVUS until your infection is gone.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).



# Important Safety Information

## What is OCREVUS?

OCREVUS is a prescription medicine used to treat adults with relapsing forms of multiple sclerosis.

It is not known if OCREVUS is safe or effective in children.

## Who should not receive OCREVUS?

**Do not** receive OCREVUS if you have an active hepatitis B virus (HBV) infection.

**Do not** receive OCREVUS if you have had a life threatening allergic reaction to OCREVUS. Tell your healthcare provider if you have had an allergic reaction to OCREVUS or any of its ingredients in the past.

## What is the most important information I should know about OCREVUS?

**OCREVUS can cause serious side effects, including:**

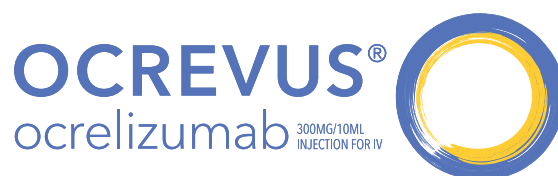
- **Infusion reactions:** OCREVUS can cause infusion reactions that can be serious and require you to be hospitalized. You will be monitored during your infusion and for at least 1 hour after each infusion of OCREVUS for signs and symptoms of an infusion reaction. Tell your healthcare provider or nurse if you get any of these symptoms:

- |                        |                             |                          |
|------------------------|-----------------------------|--------------------------|
| o itchy skin           | o throat irritation or pain | o headache               |
| o rash                 | o feeling faint             | o swelling of the throat |
| o hives                | o fever                     | o dizziness              |
| o tiredness            | o redness on your face      | o shortness of breath    |
| o coughing or wheezing | (flushing)                  | o fatigue                |
| o trouble breathing    | o nausea                    | o fast heart beat        |

**These infusion reactions can happen for up to 24 hours after your infusion.** It is important that you call your healthcare provider right away if you get any of the signs or symptoms listed above after each infusion.

If you get infusion reactions, your healthcare provider may need to stop or slow down the rate of your infusion.

Please see accompanying full [Prescribing Information](#) and [Medication Guide](#).

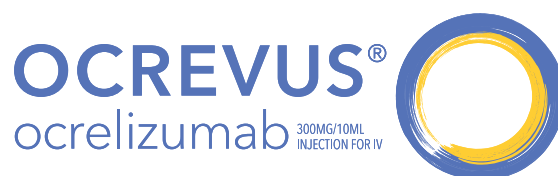


## Important Safety Information (cont'd)

- **Infection:**

- OCREVUS increases your risk of getting upper respiratory tract infections, lower respiratory tract infections, skin infections, and herpes infections. Tell your healthcare provider if you have an infection or have any of the following signs of infection including fever, chills, a cough that does not go away, or signs of herpes (such as cold sores, shingles, or genital sores). These signs can happen during treatment or after you have received your last dose of OCREVUS. If you have an active infection, your healthcare provider should delay your treatment with OCREVUS until your infection is gone.
- **Progressive Multifocal Leukoencephalopathy (PML):** Although no cases have been seen with OCREVUS treatment in clinical trials, PML may happen with OCREVUS. PML is a rare brain infection that usually leads to death or severe disability. Tell your healthcare provider right away if you have any new or worsening neurologic signs or symptoms. These may include problems with thinking, balance, eyesight, weakness on 1 side of your body, strength, or using your arms or legs.
- **Hepatitis B virus (HBV) reactivation:** Before starting treatment with OCREVUS, your healthcare provider will do blood tests to check for hepatitis B viral infection. If you have ever had hepatitis B virus infection, the hepatitis B virus may become active again during or after treatment with OCREVUS. Hepatitis B virus becoming active again (called reactivation) may cause serious liver problems including liver failure or death. Your healthcare provider will monitor you if you are at risk for hepatitis B virus reactivation during treatment and after you stop receiving OCREVUS.
- **Weakened immune system:** OCREVUS taken before or after other medicines that weaken the immune system could increase your risk of getting infections.

Please see accompanying full [Prescribing Information](#) and [Medication Guide](#).





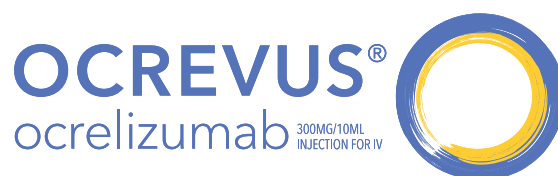
## Important Safety Information (cont'd)

**Before receiving OCREVUS, tell your healthcare provider about all of your medical conditions, including if you:**

- have ever taken, take, or plan to take medicines that affect your immune system, or other treatments for MS.
- have ever had hepatitis B or are a carrier of the hepatitis B virus.
- have had a recent vaccination or are scheduled to receive any vaccinations.
  - **You should receive any required 'live' or 'live-attenuated' vaccines at least 4 weeks before you start treatment with OCREVUS.** You **should not receive** certain vaccines (called 'live' or 'live attenuated' vaccines) while you are being treated with OCREVUS and until your healthcare provider tells you that your immune system is no longer weakened.
  - **When possible, you should receive any 'non-live' vaccines at least 2 weeks before you start treatment with OCREVUS.** If you would like to receive any non-live (inactivated) vaccines, including the seasonal flu vaccine, while you are being treated with OCREVUS, talk to your healthcare provider.
  - If you are pregnant or planning to become pregnant talk to your doctor about vaccinations for your baby, as some precautions may be needed.
- are pregnant, think that you might be pregnant, or plan to become pregnant. It is not known if OCREVUS will harm your unborn baby. You should use birth control (contraception) during treatment with OCREVUS and for 6 months after your last infusion of OCREVUS.
- are breastfeeding or plan to breastfeed. It is not known if OCREVUS passes into your breast milk. Talk to your healthcare provider about the best way to feed your baby if you take OCREVUS.

**Tell your healthcare provider about all the medicines you take**, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

Please see accompanying full [Prescribing Information](#) and [Medication Guide](#).



# Important Safety Information (cont'd)

## What are the possible side effects of OCREVUS?

OCREVUS may cause serious side effects, including:

- **Risk of cancers (malignancies) including breast cancer.** Follow your healthcare provider's instructions about standard screening guidelines for breast cancer.

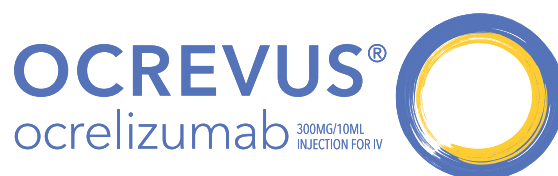
Most common side effects include infusion reactions and infections.

These are not all the possible side effects of OCREVUS.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

For more information, go to [www.OCREVUS.com](http://www.OCREVUS.com) or call 1-844-627-3887.

Please see accompanying full [Prescribing Information](#) and [Medication Guide](#).





## We're here for you

**OCREVUS CONNECTS™ is a resource center dedicated to answering your questions related to OCREVUS and MS**

When you dial the toll-free number 1-844-OCREVUS (627-3887), you'll speak directly with someone who will connect you with the service that will best meet your need.

Support is available Monday-Friday, 9 AM-8 PM ET.



**The goal of OCREVUS CONNECTS™ is to answer your questions quickly and efficiently; but remember, you should talk to your healthcare provider if you have any questions about your treatment.**

**The support services we offer:**



**Patient Navigator\***  
(your personal guide throughout your treatment with OCREVUS)



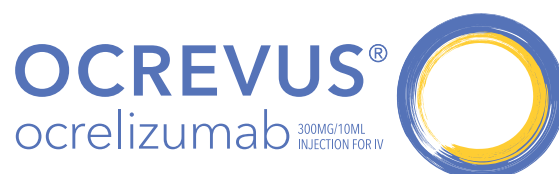
**Answers to questions**  
about OCREVUS  
and MS

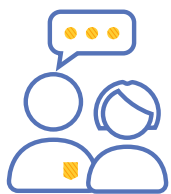


**Additional resources**  
(including live programs)

\*If you have enrolled in the program.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).





## Support along your journey

Genentech is committed to supporting you with your OCREVUS treatment, and our Patient Navigators can provide support designed for you.

### Who is your Patient Navigator?

Once you have been prescribed OCREVUS, you can enroll in a program where you will be teamed up with your own personal Patient Navigator.

This person will work with you and your healthcare team throughout your entire journey with OCREVUS.

### What does your Patient Navigator do?

#### Before your infusion

- Works with you and your healthcare provider to find an infusion site
- Reviews the infusion process with you from start to finish, including an infusion checklist
- Explains how your insurance can cover your treatment with OCREVUS
- Helps you find assistance options, if you are eligible
- Helps you enroll and navigate the OCREVUS Co-pay Program, if you are eligible

#### After your infusion

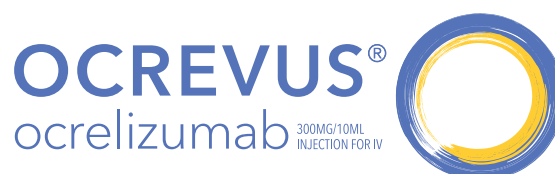
- Is available to answer questions about OCREVUS
- Reaches out when it's time to prepare for your next infusion



**Feel supported along your journey.**

Reach out to your Patient Navigator at 1-844-OCREVUS (627-3887).

Please see additional Important Safety Information on pages 21-24 and accompanying full Prescribing Information and Medication Guide.





## Knowing what to expect can make all the difference

Your Patient Navigator can take you through the process of getting treatment with OCREVUS and assist you along the way.

### Committed to helping you find assistance options

We understand your medicine can be costly. Your Patient Navigator can help you find assistance options to help you pay for OCREVUS.

#### There are options if you have:

- A commercial insurance plan (such as one you get through your employer or through a Health Insurance Marketplace like HealthCare.gov)
- A public insurance plan (such as Medicare or Medicaid)
- No insurance

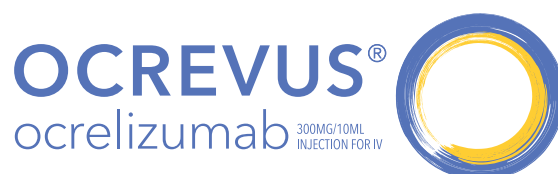
#### If you are eligible, the options to help you pay for OCREVUS include:

- The OCREVUS Co-pay Program
- Referrals to independent co-pay assistance foundations
- Referrals to the Genentech Patient Foundation



To learn more about how your Patient Navigator can help,  
call 1-844-OCREVUS (627-3887).

Please see additional Important Safety Information  
on pages 21-24 and accompanying full Prescribing  
Information and Medication Guide.





**Talk with your healthcare provider today about how OCREVUS may be the right choice for you.**

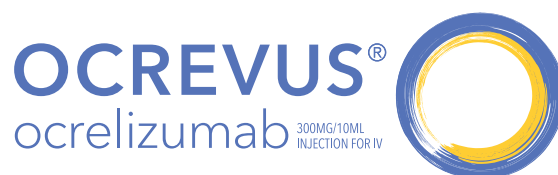
**Go to [OCREVUS.com](https://www.ocrevus.com) to learn more.**

## Important Safety Information for OCREVUS

**OCREVUS can cause serious side effects, including:**

- **Infusion reactions:** OCREVUS can cause infusion reactions that can be serious and require you to be hospitalized. You will be monitored during your infusion and for at least 1 hour after each infusion of OCREVUS for signs and symptoms of an infusion reaction.

Please see additional [Important Safety Information](#) on pages 21-24 and accompanying full [Prescribing Information](#) and [Medication Guide](#).





## HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use OCREVUS safely and effectively. See full prescribing information for OCREVUS.

**OCREVUS® (ocrelizumab) injection, for intravenous use**

**Initial U.S. Approval: 2017**

### RECENT MAJOR CHANGES

Dosage and Administration, 11/2018  
Assessments Prior to First Dose of OCREVUS (2.1)  
Warnings and Precautions, Infections (5.2) 11/2018

### INDICATIONS AND USAGE

OCREVUS is a CD20-directed cytolytic antibody indicated for the treatment of adult patients with relapsing or primary progressive forms of multiple sclerosis (1)

### DOSAGE AND ADMINISTRATION

- Hepatitis B virus screening is required before the first dose (2.1)
- Pre-medicate with methylprednisolone (or an equivalent corticosteroid) and an antihistamine (e.g., diphenhydramine) prior to each infusion (2.2)
- Administer OCREVUS by intravenous infusion
  - Start dose: 300 mg intravenous infusion, followed two weeks later by a second 300 mg intravenous infusion (2.3)
  - Subsequent doses: 600 mg intravenous infusion every 6 months (2.3)
- Must be diluted prior to administration (2.3, 2.6)
- Monitor patients closely during and for at least one hour after infusion (2.3, 2.5)

### DOSAGE FORMS AND STRENGTHS

- Injection: 300 mg/10 mL (30 mg/mL) in a single-dose vial (3)

### CONTRAINDICATIONS

- Active hepatitis B virus infection (4)
- History of life-threatening infusion reaction to OCREVUS (4)

### WARNINGS AND PRECAUTIONS

- Infusion reactions: Management recommendations for infusion reactions depend on the type and severity of the reaction. Permanently discontinue OCREVUS if a life-threatening or disabling infusion reaction occurs (2.3, 5.1)
- Infections: Delay OCREVUS administration in patients with an active infection until the infection is resolved. Vaccination with live-attenuated or live vaccines is not recommended during treatment with OCREVUS and after discontinuation, until B-cell repletion (5.2)
- Malignancies: An increased risk of malignancy, including breast cancer, may exist with OCREVUS (5.3)

### ADVERSE REACTIONS

The most common adverse reactions were:

- RMS (incidence  $\geq 10\%$  and  $>$  REBIF): upper respiratory tract infections and infusion reactions (6.1)
- PPMS (incidence  $\geq 10\%$  and  $>$  placebo): upper respiratory tract infections, infusion reactions, skin infections, and lower respiratory tract infections (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Genentech at 1-888-835-2555 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).

### USE IN SPECIFIC POPULATIONS

- Pregnancy: Based on animal data, may cause fetal harm (8.1)

See 17 for PATIENT COUNSELING INFORMATION and Medication Guide.

Revised: 11/2018

## FULL PRESCRIBING INFORMATION: CONTENTS\*

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### 2 DOSAGE AND ADMINISTRATION

- 2.1 Assessments Prior to First Dose of OCREVUS
- 2.2 Preparation Before Every Infusion
- 2.3 Recommended Dosage and Dose Administration
- 2.4 Delayed or Missed Doses
- 2.5 Dose Modifications Because of Infusion Reactions
- 2.6 Preparation and Storage of the Dilute Solution for Infusion

### 3 DOSAGE FORMS AND STRENGTHS

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\*Sections or subsections omitted from the full prescribing information are not listed

## FULL PRESCRIBING INFORMATION

### 1 INDICATIONS AND USAGE

OCREVUS is indicated for the treatment of adult patients with relapsing or primary progressive forms of multiple sclerosis.

### 2 DOSAGE AND ADMINISTRATION

#### 2.1 Assessments Prior to First Dose of OCREVUS

##### Hepatitis B Virus Screening

Prior to initiating OCREVUS, perform Hepatitis B virus (HBV) screening. OCREVUS is contraindicated in patients with active HBV confirmed by positive results for HBsAg and anti-HBV tests. For patients who are negative for surface antigen [HBsAg] and positive for HB core antibody [HBcAb+] or are carriers of HBV [HBsAg+], consult liver disease experts before starting and during treatment *[see Warnings and Precautions (5.2)]*.

##### Vaccinations

Because vaccination with live-attenuated or live vaccines is not recommended during treatment and after discontinuation until B-cell repletion, administer all immunizations according to immunization guidelines at least 4 weeks prior to initiation of OCREVUS for live or live-attenuated vaccines and, whenever possible, at least 2 weeks prior to initiation of OCREVUS for non-live vaccines *[see Warnings and Precautions (5.2) and Clinical Pharmacology (12.2)]*.

#### 2.2 Preparation Before Every Infusion

##### Infection Assessment

Prior to every infusion of OCREVUS, determine whether there is an active infection. In case of active infection, delay infusion of OCREVUS until the infection resolves *[see Warnings and Precautions (5.2)]*.

##### Recommended Premedication

Pre-medicate with 100 mg of methylprednisolone (or an equivalent corticosteroid) administered intravenously approximately 30 minutes prior to each OCREVUS infusion to reduce the frequency and severity of infusion reactions *[see Warnings and Precautions (5.1)]*. Pre-medicate with an antihistamine (e.g., diphenhydramine) approximately 30-60 minutes prior to each OCREVUS infusion to further reduce the frequency and severity of infusion reactions.

The addition of an antipyretic (e.g., acetaminophen) may also be considered.

#### 2.3 Recommended Dosage and Dose Administration

Administer OCREVUS under the close supervision of an experienced healthcare professional with access to appropriate medical support to manage severe reactions such as serious infusion reactions.

- Initial dose: 300 mg intravenous infusion, followed two weeks later by a second 300 mg intravenous infusion.
- Subsequent doses: single 600 mg intravenous infusion every 6 months.
- Observe the patient for at least one hour after the completion of the infusion *[see Warnings and Precautions (5.1)]*.

**Table 1 Recommended Dose, Infusion Rate, and Infusion Duration for RMS and PPMS**

		Amount and Volume <sup>1</sup>	Infusion Rate and Duration <sup>3</sup>
<b>Initial Dose</b> (two infusions)	Infusion 1	300 mg in 250 mL	<ul style="list-style-type: none"> <li>• Start at 30 mL per hour</li> <li>• Increase by 30 mL per hour every 30 minutes</li> <li>• Maximum: 180 mL per hour</li> <li>• Duration: 2.5 hours or longer</li> </ul>
	Infusion 2 (2 weeks later)	300 mg in 250 mL	
<b>Subsequent Doses</b> (one infusion)	One infusion every 6 months <sup>2</sup>	600 mg in 500 mL	<ul style="list-style-type: none"> <li>• Start at 40 mL per hour</li> <li>• Increase by 40 mL per hour every 30 minutes</li> <li>• Maximum: 200 mL per hour</li> <li>• Duration: 3.5 hours or longer</li> </ul>

<sup>1</sup> Solutions of OCREVUS for intravenous infusion are prepared by dilution of the drug product into an infusion bag containing 0.9% Sodium Chloride Injection, to a final drug concentration of approximately 1.2 mg/mL.

<sup>2</sup> Administer the first Subsequent Dose 6 months after Infusion 1 of the Initial Dose.

<sup>3</sup> Infusion time may take longer if the infusion is interrupted or slowed [*see Dosage and Administration (2.5)*].

## 2.4 Delayed or Missed Doses

If a planned infusion of OCREVUS is missed, administer OCREVUS as soon as possible; do not wait until the next scheduled dose. Reset the dose schedule to administer the next sequential dose 6 months after the missed dose is administered. Doses of OCREVUS must be separated by at least 5 months [*see Dosage and Administration (2.3)*].

## 2.5 Dose Modifications Because of Infusion Reactions

Dose modifications in response to infusion reactions depends on the severity.

### Life-threatening Infusion Reactions

Immediately stop and permanently discontinue OCREVUS if there are signs of a life-threatening or disabling infusion reaction [*see Warnings and Precautions (5.1)*]. Provide appropriate supportive treatment.

### Severe Infusion Reactions

Immediately interrupt the infusion and administer appropriate supportive treatment, as necessary [*see Warnings and Precautions (5.1)*]. Restart the infusion only after all symptoms have resolved. When restarting, begin at half of the infusion rate at the time of onset of the infusion reaction [*see Dosage and Administration (2.2)*]. If this rate is tolerated, increase the rate as described in Table 1. This change in rate will increase the total duration of the infusion but not the total dose.

### Mild to Moderate Infusion Reactions

Reduce the infusion rate to half the rate at the onset of the infusion reaction and maintain the reduced rate for at least 30 minutes [*see Warnings and Precautions (5.1)*]. If this rate is tolerated, increase the rate as described in Table 1. This change in rate will increase the total duration of the infusion but not the total dose.

## 2.6 Preparation and Storage of the Dilute Solution for Infusion

### Preparation

OCREVUS must be prepared by a healthcare professional using aseptic technique.

Visually inspect for particulate matter and discoloration prior to administration. Do not use the solution if discolored or if the solution contains discrete foreign particulate matter. Do not shake.

Withdraw intended dose and further dilute into an infusion bag containing 0.9% Sodium Chloride Injection, to a final drug concentration of approximately 1.2 mg/mL.

- Withdraw 10 mL (300 mg) of OCREVUS and inject into 250 mL
- Withdraw 20 mL (600 mg) of OCREVUS and inject into 500 mL

Do not use other diluents to dilute OCREVUS since their use has not been tested. The product contains no preservative and is intended for single use only.

#### Storage of Infusion Solution

Prior to the start of the intravenous infusion, the content of the infusion bag should be at room temperature.

Use the prepared infusion solution immediately. If not used immediately, store up to 24 hours in the refrigerator at 2°C–8°C (36°F–46°F) and 8 hours at room temperature up to 25°C (77°F), which includes infusion time. In the event an intravenous infusion cannot be completed the same day, discard the remaining solution.

No incompatibilities between OCREVUS and polyvinyl chloride (PVC) or polyolefin (PO) bags and intravenous (IV) administration sets have been observed.

#### Administration

Administer the diluted infusion solution through a dedicated line using an infusion set with a 0.2 or 0.22 micron in-line filter.

### **3 DOSAGE FORMS AND STRENGTHS**

Injection: 300 mg/10 mL (30 mg/mL) clear or slightly opalescent, and colorless to pale brown solution in a single-dose vial.

### **4 CONTRAINDICATIONS**

OCREVUS is contraindicated in patients with:

- Active HBV infection [*see Dosage and Administration (2.6) and Warnings and Precautions (5.2)*]
- A history of life-threatening infusion reaction to OCREVUS [*see Warnings and Precautions (5.1)*]

### **5 WARNINGS AND PRECAUTIONS**

#### **5.1 Infusion Reactions**

OCREVUS can cause infusion reactions, which can include pruritus, rash, urticaria, erythema, bronchospasm, throat irritation, oropharyngeal pain, dyspnea, pharyngeal or laryngeal edema, flushing, hypotension, pyrexia, fatigue, headache, dizziness, nausea, and tachycardia. In multiple sclerosis (MS) clinical trials, the incidence of infusion reactions in OCREVUS-treated patients [who received methylprednisolone (or an equivalent steroid) and possibly other pre-medication to reduce the risk of infusion reactions prior to each infusion] was 34 to 40%, with the highest incidence with the first infusion. There were no fatal infusion reactions, but 0.3% of OCREVUS-treated MS patients experienced infusion reactions that were serious, some requiring hospitalization.

Observe patients treated with OCREVUS for infusion reactions during the infusion and for at least one hour after completion of the infusion. Inform patients that infusion reactions can occur up to 24 hours after the infusion.

#### Reducing the Risk of Infusion Reactions and Managing Infusion Reactions

Administer pre-medication (e.g., methylprednisolone or an equivalent corticosteroid, and an antihistamine) to reduce the frequency and severity of infusion reactions. The addition of an antipyretic (e.g., acetaminophen) may also be considered [*see Dosage and Administration (2.3)*].

Management recommendations for infusion reactions depend on the type and severity of the reaction [*see Dosage and Administration (2.5)*]. For life-threatening infusion reactions, immediately and permanently stop OCREVUS and administer appropriate supportive treatment. For less severe infusion reactions, management may involve temporarily stopping the infusion, reducing the infusion rate, and/or administering symptomatic treatment.

## **5.2 Infections**

A higher proportion of OCREVUS-treated patients experienced infections compared to patients taking REBIF or placebo. In RMS trials, 58% of OCREVUS-treated patients experienced one or more infections compared to 52% of REBIF-treated patients. In the PPMS trial, 70% of OCREVUS-treated patients experienced one or more infections compared to 68% of patients on placebo. OCREVUS increased the risk for upper respiratory tract infections, lower respiratory tract infections, skin infections, and herpes-related infections [*see Adverse Reactions (6.1)*]. OCREVUS was not associated with an increased risk of serious infections in MS patients. Delay OCREVUS administration in patients with an active infection until the infection is resolved.

### Respiratory Tract Infections

A higher proportion of OCREVUS-treated patients experienced respiratory tract infections compared to patients taking REBIF or placebo. In RMS trials, 40% of OCREVUS-treated patients experienced upper respiratory tract infections compared to 33% of REBIF-treated patients, and 8% of OCREVUS-treated patients experienced lower respiratory tract infections compared to 5% of REBIF-treated patients. In the PPMS trial, 49% of OCREVUS-treated patients experienced upper respiratory tract infections compared to 43% of patients on placebo and 10% of OCREVUS-treated patients experienced lower respiratory tract infections compared to 9% of patients on placebo. The infections were predominantly mild to moderate and consisted mostly of upper respiratory tract infections and bronchitis.

### Herpes

In active-controlled (RMS) clinical trials, herpes infections were reported more frequently in OCREVUS-treated patients than in REBIF-treated patients, including herpes zoster (2.1% vs. 1.0%), herpes simplex (0.7% vs. 0.1%), oral herpes (3.0% vs. 2.2%), genital herpes (0.1% vs. 0%), and herpes virus infection (0.1% vs. 0%). Infections were predominantly mild to moderate in severity. There were no reports of disseminated herpes.

In the placebo-controlled (PPMS) clinical trial, oral herpes was reported more frequently in the OCREVUS-treated patients than in the patients on placebo (2.7% vs 0.8%).

### Progressive Multifocal Leukoencephalopathy (PML)

PML is an opportunistic viral infection of the brain caused by the John Cunningham (JC) virus that typically only occurs in patients who are immunocompromised, and that usually leads to death or severe disability. Although no cases of PML were identified in OCREVUS clinical trials, JC virus infection resulting in PML has been observed in patients treated with other anti-CD20 antibodies and other MS therapies and has been associated with some risk factors (e.g., immunocompromised patients, polytherapy with immunosuppressants). At the first sign or symptom suggestive of PML, withhold OCREVUS and perform an appropriate diagnostic evaluation. MRI findings may be apparent before clinical signs or symptoms. Typical symptoms associated with PML are diverse, progress over days to weeks, and include progressive weakness on one side of the body or clumsiness of limbs, disturbance of vision, and changes in thinking, memory, and orientation leading to confusion and personality changes.

### Hepatitis B Virus (HBV) Reactivation

There were no reports of hepatitis B reactivation in MS patients treated with OCREVUS. Fulminant hepatitis, hepatic failure, and death caused by HBV reactivation have occurred in patients treated with other anti-CD20 antibodies. Perform HBV screening in all patients before initiation of treatment with OCREVUS. Do not administer OCREVUS to patients with active HBV confirmed by positive results for HBsAg and anti-HB tests. For patients who are negative for surface antigen [HBsAg] and positive for HB core antibody [HBcAb+] or are carriers of HBV [HBsAg+], consult liver disease experts before starting and during treatment.

### Possible Increased Risk of Immunosuppressant Effects with Other Immunosuppressants

When initiating OCREVUS after an immunosuppressive therapy or initiating an immunosuppressive therapy after OCREVUS, consider the potential for increased immunosuppressive effects [see *Drug Interactions (7.1)* and *Clinical Pharmacology (12.1, 12.2)*]. OCREVUS has not been studied in combination with other MS therapies.

### Vaccinations

Administer all immunizations according to immunization guidelines at least 4 weeks prior to initiation of OCREVUS for live or live-attenuated vaccines and, whenever possible, at least 2 weeks prior to initiation of OCREVUS for non-live vaccines.

OCREVUS may interfere with the effectiveness of non-live vaccines [see *Drug Interactions (7.2)*].

The safety of immunization with live or live-attenuated vaccines following OCREVUS therapy has not been studied, and vaccination with live-attenuated or live vaccines is not recommended during treatment and until B-cell repletion [see *Clinical Pharmacology (12.2)*].

### *Vaccination of Infants Born to Mothers Treated with OCREVUS During Pregnancy*

In infants of mothers exposed to OCREVUS during pregnancy, do not administer live or live-attenuated vaccines before confirming the recovery of B-cell counts as measured by CD19<sup>+</sup> B-cells. Depletion of B-cells in these infants may increase the risks from live or live-attenuated vaccines.

You may administer non-live vaccines, as indicated, prior to recovery from B-cell depletion, but should consider assessing vaccine immune responses, including consultation with a qualified specialist, to assess whether a protective immune response was mounted [see *Use in Specific Populations (8.1)*].

## **5.3 Malignancies**

An increased risk of malignancy with OCREVUS may exist. In controlled trials, malignancies, including breast cancer, occurred more frequently in OCREVUS-treated patients. Breast cancer occurred in 6 of 781 females treated with OCREVUS and none of 668 females treated with REBIF or placebo. Patients should follow standard breast cancer screening guidelines.

## **6 ADVERSE REACTIONS**

The following serious adverse reactions are discussed in greater detail in other sections of the labeling:

- Infusion Reactions [see *Warnings and Precautions (5.1)*]
- Infections [see *Warnings and Precautions (5.2)*]
- Malignancies [see *Warnings and Precautions (5.3)*]

### **6.1 Clinical Trials Experience**

Because clinical trials are conducted under widely varying conditions, adverse reactions rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice.

The safety of OCREVUS has been evaluated in 1311 patients across MS clinical studies, which included 825 patients in active-controlled clinical trials in patients with relapsing forms of MS (RMS) and 486 patients in a placebo-controlled study in patients with primary progressive MS (PPMS).

#### Adverse Reactions in Patients with Relapsing Forms of MS

In active-controlled clinical trials (Study 1 and Study 2), 825 patients with RMS received OCREVUS 600 mg intravenously every 24 weeks (initial treatment was given as two separate 300 mg infusions at Weeks 0 and 2) [see *Clinical Studies (14.1)*]. The overall exposure in the 96-week controlled treatment periods was 1448 patient-years.

The most common adverse reactions in RMS trials (incidence  $\geq 10\%$ ) were upper respiratory tract infections and infusion reactions. Table 2 summarizes the adverse reactions that occurred in RMS trials (Study 1 and Study 2).



**Table 2 Adverse Reactions in Adult Patients with RMS with an Incidence of at least 5% for OCREVUS and Higher than REBIF**

Adverse Reactions	Studies 1 and 2	
	<b>OCREVUS 600 mg IV Every 24 Weeks<sup>1</sup> (n=825) %</b>	<b>REBIF 44 mcg SQ 3 Times per Week (n=826) %</b>
Upper respiratory tract infections	40	33
Infusion reactions	34	10
Depression	8	7
Lower respiratory tract infections	8	5
Back pain	6	5
Herpes virus- associated infections	6	4
Pain in extremity	5	4

<sup>1</sup> The first dose was given as two separate 300 mg infusions at Weeks 0 and 2.

#### Adverse Reactions in Patients with Primary Progressive MS

In a placebo-controlled clinical trial (Study 3), a total of 486 patients with PPMS received one course of OCREVUS (600 mg of OCREVUS administered as two 300 mg infusions two weeks apart) given intravenously every 24 weeks and 239 patients received placebo intravenously [*see Clinical Studies (14.2)*]. The overall exposure in the controlled treatment period was 1416 patient-years, with median treatment duration of 3 years.

The most common adverse reactions in the PPMS trial (incidence  $\geq 10\%$ ) were upper respiratory tract infections, infusion reactions, skin infections, and lower respiratory tract infections. Table 3 summarizes the adverse reactions that occurred in the PPMS trial (Study 3).

**Table 3 Adverse Reactions in Adult Patients with PPMS with an Incidence of at least 5% for OCREVUS and Higher than Placebo**

Adverse Reactions	Study 3	
	<b>OCREVUS 600 mg IV Every 24 Weeks<sup>1</sup> (n=486) %</b>	<b>Placebo  (n=239) %</b>
Upper respiratory tract infections	49	43
Infusion reactions	40	26
Skin infections	14	11
Lower respiratory tract infections	10	9
Cough	7	3
Diarrhea	6	5
Edema peripheral	6	5
Herpes virus associated infections	5	4

<sup>1</sup> One dose of OCREVUS (600 mg administered as two 300 mg infusions two weeks apart)

#### Laboratory Abnormalities

##### *Decreased Immunoglobulins*

OCREVUS decreased total immunoglobulins with the greatest decline seen in IgM levels. In MS clinical trials, there was no apparent association between immunoglobulin decrease and risk for serious infections.

In the active-controlled (RMS) trials (Study 1 and Study 2), the proportion of patients at baseline reporting IgG, IgA, and IgM below the lower limit of normal (LLN) in OCREVUS-treated patients was 0.5%, 1.5%, and 0.1%, respectively. Following treatment, the proportion of OCREVUS-treated patients reporting IgG, IgA, and IgM below the LLN at 96 weeks was 1.5%, 2.4%, and 16.5%, respectively.

In the placebo-controlled (PPMS) trial (Study 3), the proportion of patients at baseline reporting IgG, IgA, and IgM below the LLN in OCREVUS-treated patients was 0.0%, 0.2%, and 0.2%, respectively. Following treatment, the proportion of OCREVUS-treated patients reporting IgG, IgA, and IgM below the LLN at 120 weeks was 1.1%, 0.5%, and 15.5%, respectively.

### *Decreased Neutrophil Levels*

In the PPMS clinical trial (Study 3), decreased neutrophil counts occurred in 13% of OCREVUS-treated patients compared to 10% in placebo patients. The majority of the decreased neutrophil counts were only observed once for a given patient treated with OCREVUS and were between LLN -  $1.5 \times 10^9/L$  and  $1.0 \times 10^9/L$ . Overall, 1% of the patients in the OCREVUS group had neutrophil counts less than  $1.0 \times 10^9/L$  and these were not associated with an infection.

## **6.2 Immunogenicity**

As with all therapeutic proteins, there is potential for immunogenicity. Immunogenicity data are highly dependent on the sensitivity and specificity of the test methods used. Additionally, the observed incidence of a positive result in a test method may be influenced by several factors, including sample handling, timing of sample collection, drug interference, concomitant medication, and the underlying disease. Therefore, comparison of the incidence of antibodies to OCREVUS with the incidence of antibodies to other products may be misleading.

Patients in MS trials (Study 1, Study 2, and Study 3) were tested at multiple time points (baseline and every 6 months post-treatment for the duration of the trial) for anti-drug antibodies (ADAs). Out of 1311 patients treated with OCREVUS, 12 (~1%) tested positive for ADAs, of which 2 patients tested positive for neutralizing antibodies. These data are not adequate to assess the impact of ADAs on the safety and efficacy of OCREVUS.

## **7 DRUG INTERACTIONS**

### **7.1 Immunosuppressive or Immune-Modulating Therapies**

The concomitant use of OCREVUS and other immune-modulating or immunosuppressive therapies, including immunosuppressant doses of corticosteroids, is expected to increase the risk of immunosuppression. Consider the risk of additive immune system effects when coadministering immunosuppressive therapies with OCREVUS. When switching from drugs with prolonged immune effects, such as daclizumab, fingolimod, natalizumab, teriflunomide, or mitoxantrone, consider the duration and mode of action of these drugs because of additive immunosuppressive effects when initiating OCREVUS [*see Warnings and Precautions (5.2)*].

### **7.2 Vaccinations**

A Phase 3b randomized, open-label study examined the concomitant use of OCREVUS and several non-live vaccines in adults 18-55 years of age with relapsing forms of MS (68 subjects undergoing treatment with OCREVUS at the time of vaccination and 34 subjects not undergoing treatment with OCREVUS at the time of vaccination). Concomitant exposure to OCREVUS attenuated antibody responses to tetanus toxoid-containing vaccine, pneumococcal polysaccharide, pneumococcal conjugate vaccines, and seasonal inactivated influenza vaccines. The impact of the observed attenuation on vaccine effectiveness in this patient population is unknown. The safety and effectiveness of live or live-attenuated vaccines administered concomitantly with OCREVUS have not been assessed [*see Warnings and Precautions (5.2)*].

## **8 USE IN SPECIFIC POPULATIONS**

### **8.1 Pregnancy**

#### Risk Summary

OCREVUS is a humanized monoclonal antibody of an immunoglobulin G1 subtype and immunoglobulins are known to cross the placental barrier. There are no adequate data on the developmental risk associated with use of OCREVUS in pregnant women. However, transient peripheral B-cell depletion and lymphocytopenia have been reported in infants born to mothers exposed to other anti-CD20 antibodies during pregnancy. B-cell levels in infants following maternal exposure to OCREVUS have not been studied in clinical trials. The potential duration of B-cell depletion in such infants, and the impact of B-cell depletion on vaccine safety and effectiveness, is unknown [*see Warnings and Precautions (5.2)*].

Following administration of ocrelizumab to pregnant monkeys at doses similar to or greater than those used clinically, increased perinatal mortality, depletion of B-cell populations, renal, bone marrow, and testicular toxicity were observed in the offspring in the absence of maternal toxicity [*see Data*].

In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively. The background risk of major birth defects and miscarriage for the indicated population is unknown.

#### Data

##### *Animal Data*

Following intravenous administration of OCREVUS to monkeys during organogenesis (loading doses of 15 or 75 mg/kg on gestation days 20, 21, and 22, followed by weekly doses of 20 or 100 mg/kg), depletion of B-lymphocytes in lymphoid tissue (spleen and lymph nodes) was observed in fetuses at both doses.

Intravenous administration of OCREVUS (three daily loading doses of 15 or 75 mg/kg, followed by weekly doses of 20 or 100 mg/kg) to pregnant monkeys throughout the period of organogenesis and continuing through the neonatal period resulted in perinatal deaths (some associated with bacterial infections), renal toxicity (glomerulopathy and inflammation), lymphoid follicle formation in the bone marrow, and severe decreases in circulating B-lymphocytes in neonates. The cause of the neonatal deaths is uncertain; however, both affected neonates were found to have bacterial infections. Reduced testicular weight was observed in neonates at the high dose.

A no-effect dose for adverse developmental effects was not identified; the doses tested in monkey are 2 and 10 times the recommended human dose of 600 mg, on a mg/kg basis.

### **8.2 Lactation**

#### Risk Summary

There are no data on the presence of ocrelizumab in human milk, the effects on the breastfed infant, or the effects of the drug on milk production. Ocrelizumab was excreted in the milk of ocrelizumab-treated monkeys. Human IgG is excreted in human milk, and the potential for absorption of ocrelizumab to lead to B-cell depletion in the infant is unknown. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for OCREVUS and any potential adverse effects on the breastfed infant from OCREVUS or from the underlying maternal condition.

### **8.3 Females and Males of Reproductive Potential**

#### Contraception

Women of childbearing potential should use contraception while receiving OCREVUS and for 6 months after the last infusion of OCREVUS [*see Clinical Pharmacology (12.3)*].

### **8.4 Pediatric Use**

Safety and effectiveness of OCREVUS in pediatric patients have not been established.

## 8.5 Geriatric Use

Clinical studies of OCREVUS did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects.

## 11 DESCRIPTION

Ocrelizumab is a recombinant humanized monoclonal antibody directed against CD20-expressing B-cells. Ocrelizumab is a glycosylated immunoglobulin G1 (IgG1) with a molecular mass of approximately 145 kDa.

OCREVUS (ocrelizumab) Injection for intravenous infusion is a preservative-free, sterile, clear or slightly opalescent, and colorless to pale brown solution supplied in single-dose vials. Each mL of solution contains 30 mg ocrelizumab, glacial acetic acid (0.25 mg), polysorbate 20 (0.2 mg), sodium acetate trihydrate (2.14 mg), and trehalose dihydrate (40 mg) at pH 5.3.

## 12 CLINICAL PHARMACOLOGY

### 12.1 Mechanism of Action

The precise mechanism by which ocrelizumab exerts its therapeutic effects in multiple sclerosis is unknown, but is presumed to involve binding to CD20, a cell surface antigen present on pre-B and mature B lymphocytes. Following cell surface binding to B lymphocytes, ocrelizumab results in antibody-dependent cellular cytotoxicity and complement-mediated lysis.

### 12.2 Pharmacodynamics

For B-cell counts, assays for CD19<sup>+</sup> B-cells are used because the presence of OCREVUS interferes with the CD20 assay. Treatment with OCREVUS reduces CD19<sup>+</sup> B-cell counts in blood by 14 days after infusion. In clinical studies, B-cell counts rose to above the lower limit of normal (LLN) or above baseline counts between infusions of OCREVUS at least one time in 0.3% to 4.1% of patients. In a clinical study of 51 patients, the median time for B-cell counts to return to either baseline or LLN was 72 weeks (range 27-175 weeks) after the last OCREVUS infusion. Within 2.5 years after the last infusion, B-cell counts rose to either baseline or LLN in 90% of patients.

### 12.3 Pharmacokinetics

Pharmacokinetics (PK) of OCREVUS in MS clinical studies fit a two compartment model with time-dependent clearance. The overall exposure at the steady-state (AUC over the 24 week dosing intervals) of OCREVUS was 3,510 mcg/mL per day. In clinical studies in MS patients, maintenance doses of ocrelizumab were either 600 mg every 6 months (RMS patients) or two 300 mg infusions separated by 14 days every 6 months (PPMS patients). The mean maximum concentration was 212 mcg/mL in patients with RMS (600 mg infusion) and 141 mcg/mL in patients with PPMS (two 300 mg infusions administered within two weeks). The pharmacokinetics of ocrelizumab was essentially linear and dose proportional between 400 mg and 2000 mg.

#### Distribution

The population PK estimate of the central volume of distribution was 2.78 L. Peripheral volume and inter-compartment clearance were estimated at 2.68 L and 0.29 L/day, respectively.

#### Elimination

Constant clearance was estimated at 0.17 L/day, and initial time-dependent clearance at 0.05 L/day, which declined with a half-life of 33 weeks. The terminal elimination half-life was 26 days.

#### Metabolism

The metabolism of OCREVUS has not been directly studied because antibodies are cleared principally by catabolism.

#### Specific Populations

##### *Renal impairment*

Patients with mild renal impairment were included in clinical trials. No significant change in the pharmacokinetics of OCREVUS was observed in those patients.

## *Hepatic impairment*

Patients with mild hepatic impairment were included in clinical trials. No significant change in the pharmacokinetics of OCREVUS was observed in those patients.

## **13 NONCLINICAL TOXICOLOGY**

### **13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility**

No carcinogenicity studies have been performed to assess the carcinogenic potential of OCREVUS.

No studies have been performed to assess the mutagenic potential of OCREVUS. As an antibody, OCREVUS is not expected to interact directly with DNA.

No effects on reproductive organs were observed in male monkeys administered ocrelizumab by intravenous injection (three loading doses of 15 or 75 mg/kg, followed by weekly doses of 20 or 100 mg/kg) for 8 weeks. There were also no effects on estrus cycle in female monkeys administered ocrelizumab over three menstrual cycles using the same dosing regimen. The doses tested in monkey are 2 and 10 times the recommended human dose of 600 mg, on a mg/kg basis.

## **14 CLINICAL STUDIES**

### **14.1 Relapsing Forms of Multiple Sclerosis (RMS)**

The efficacy of OCREVUS was demonstrated in two randomized, double-blind, double-dummy, active comparator-controlled clinical trials of identical design, in patients with RMS treated for 96 weeks (Study 1 and Study 2). The dose of OCREVUS was 600 mg every 24 weeks (initial treatment was given as two 300 mg IV infusions administered 2 weeks apart, and subsequent doses were administered as a single 600 mg IV infusion) and placebo subcutaneous injections were given 3 times per week. The dose of REBIF, the active comparator, was 44 mcg given as subcutaneous injections 3 times per week and placebo IV infusions were given every 24 weeks. Both studies included patients who had experienced at least one relapse within the prior year, or two relapses within the prior two years, and had an Expanded Disability Status Scale (EDSS) score from 0 to 5.5. Patients with primary progressive forms of multiple sclerosis (MS) were excluded. Neurological evaluations were performed every 12 weeks and at the time of a suspected relapse. Brain MRIs were performed at baseline and at Weeks 24, 48, and 96.

The primary outcome of both Study 1 and Study 2 was the annualized relapse rate (ARR). Additional outcome measures included the proportion of patients with confirmed disability progression, the mean number of MRI T1 gadolinium (Gd)-enhancing lesions at Weeks 24, 48, and 96, and new or enlarging MRI T2 hyperintense lesions. Progression of disability was defined as an increase of 1 point or more from the baseline EDSS score attributable to MS when the baseline EDSS score was 5.5 or less, or 0.5 points or more when the baseline EDSS score was above 5.5. Disability progression was considered confirmed when the increase in the EDSS was confirmed at a regularly scheduled visit 12 weeks after the initial documentation of neurological worsening. The primary population for analysis of confirmed disability progression was the pooled population from Studies 1 and 2.

In Study 1, 410 patients were randomized to OCREVUS and 411 to REBIF; 11% of OCREVUS-treated and 17% of REBIF-treated patients did not complete the 96-week double-blind treatment period. The baseline demographic and disease characteristics were balanced between the two treatment groups. At baseline, the mean age of patients was 37 years; 66% were female. The mean time from MS diagnosis to randomization was 3.8 years, the mean number of relapses in the previous year was 1.3, and the mean EDSS score was 2.8; 74% of patients had not been treated with a non-steroid therapy for MS in the 2 years prior to the study. At baseline, 40% of patients had one or more T1 Gd-enhancing lesions (mean 1.8).

In Study 2, 417 patients were randomized to OCREVUS and 418 to REBIF; 14% of OCREVUS-treated and 23% of REBIF-treated patients did not complete the 96-week double-blind treatment period. The baseline demographic and disease characteristics were balanced between the two treatment groups. At baseline, the mean age of patients was 37 years; 66% were female. The mean time from MS diagnosis to randomization was 4.1 years, the mean number of relapses in the previous year was 1.3, and the mean EDSS score was 2.8; 74% of

patients had not been treated with a non-steroid therapy for MS in the 2 years prior to the study. At baseline, 40% of OCREVUS-treated patients had one or more T1 Gd-enhancing lesions (mean 1.9).

In Study 1 and Study 2, OCREVUS significantly lowered the annualized relapse rate and the proportion of patients with disability progression confirmed at 12 weeks after onset compared to REBIF. Results for Study 1 and Study 2 are presented in Table 4 and Figure 1.

**Table 4 Key Clinical and MRI Endpoints in RMS Patients from Study 1 and Study 2**

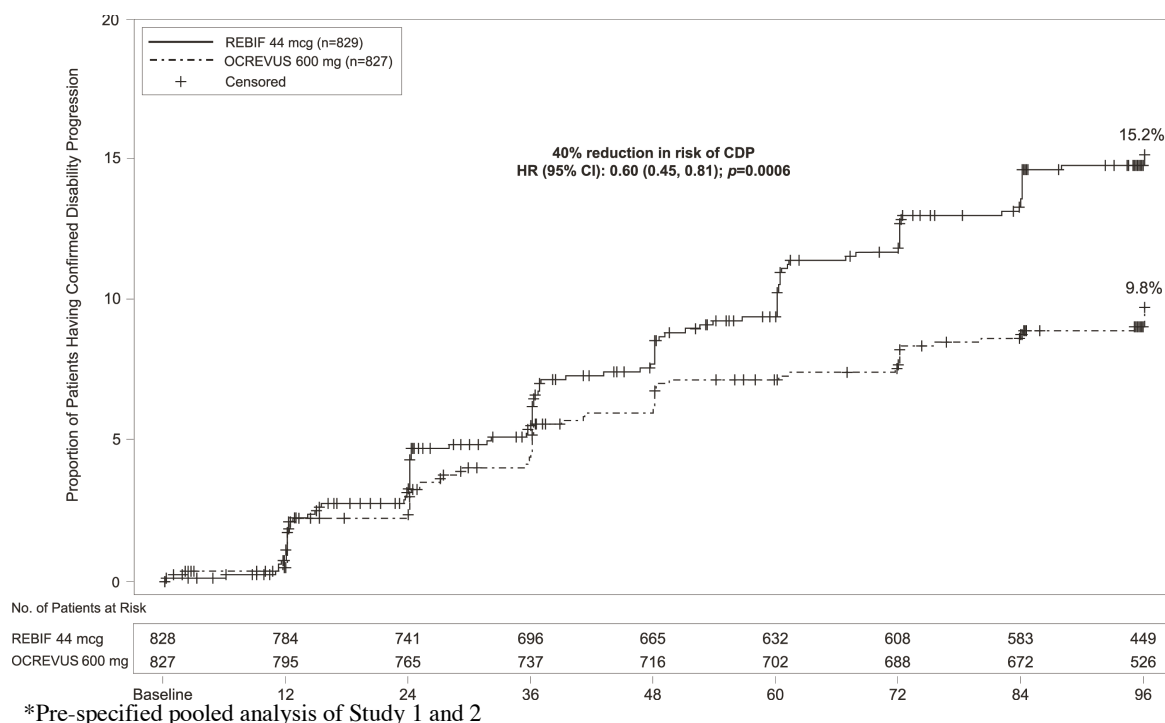
Endpoints	Study 1		Study 2	
	OCREVUS 600 mg every 24 weeks N=410	REBIF 44 mcg three times a week N=411	OCREVUS 600 mg every 24 weeks N=417	REBIF 44 mcg three times a week N=418
Clinical Endpoints				
Annualized Relapse Rate (Primary Endpoint)	0.156	0.292	0.155	0.290
Relative Reduction	46% (p<0.0001)		47% (p<0.0001)	
Proportion Relapse-free	83%	71%	82%	72%
Proportion of Patients with 12-week Confirmed Disability Progression <sup>1</sup>	9.8% OCREVUS vs 15.2% REBIF			
Risk Reduction (Pooled Analysis <sup>2</sup> )	40%; p=0.0006			
MRI Endpoints				
Mean number of T1 Gd-enhancing lesions per MRI	0.016	0.286	0.021	0.416
Relative Reduction	94% (p<0.0001)		95% (p<0.0001)	
Mean number of new and/or enlarging T2 hyperintense lesions per MRI	0.323	1.413	0.325	1.904
Relative Reduction	77% (p<0.0001)		83% (p<0.0001)	

<sup>1</sup> Defined as an increase of 1.0 point or more from the baseline Expanded Disability Status Scale (EDSS) score for patients with baseline score of 5.5 or less, or 0.5 or more when the baseline score is greater than 5.5, Kaplan-Meier estimates at Week 96.

<sup>2</sup> Data prospectively pooled from Study 1 and Study 2.



**Figure 1 Kaplan-Meier Plot\* of Time to Onset of Confirmed Disability Progression Sustained for at Least 12 Weeks with the Initial Event of Neurological Worsening Occurring During the Double-blind Treatment Period in Pooled Studies 1 and 2 in Patients with RMS (Pooled ITT Population)**



In exploratory subgroup analyses of Study 1 and Study 2, the effect of OCREVUS on annualized relapse rate and disability progression was similar in male and female patients.

## 14.2 Primary Progressive Multiple Sclerosis (PPMS)

Study 3 was a randomized, double-blind, placebo-controlled clinical trial in patients with PPMS. Patients were randomized 2:1 to receive either OCREVUS 600 mg or placebo as two 300 mg intravenous infusions 2 weeks apart every 24 weeks for at least 120 weeks. Selection criteria required a baseline EDSS of 3 to 6.5 and a score of 2 or greater for the EDSS pyramidal functional system due to lower extremity findings. Neurological assessments were conducted every 12 weeks. An MRI scan was obtained at baseline and at Weeks 24, 48, and 120.

In Study 3, the primary outcome was the time to onset of disability progression attributable to MS confirmed to be present at the next neurological assessment at least 12 weeks later. Disability progression occurred when the EDSS score increased by 1 point or more from the baseline EDSS if the baseline EDSS was 5.5 points or less, or by 0.5 points or more if the baseline EDSS was more than 5.5 points. In Study 3, confirmed disability progression also was deemed to have occurred if patients who had onset of disability progression discontinued participation in the study before the next assessment. Additional outcome measures included timed 25-foot walk, and percentage change in T2 hyperintense lesion volume.

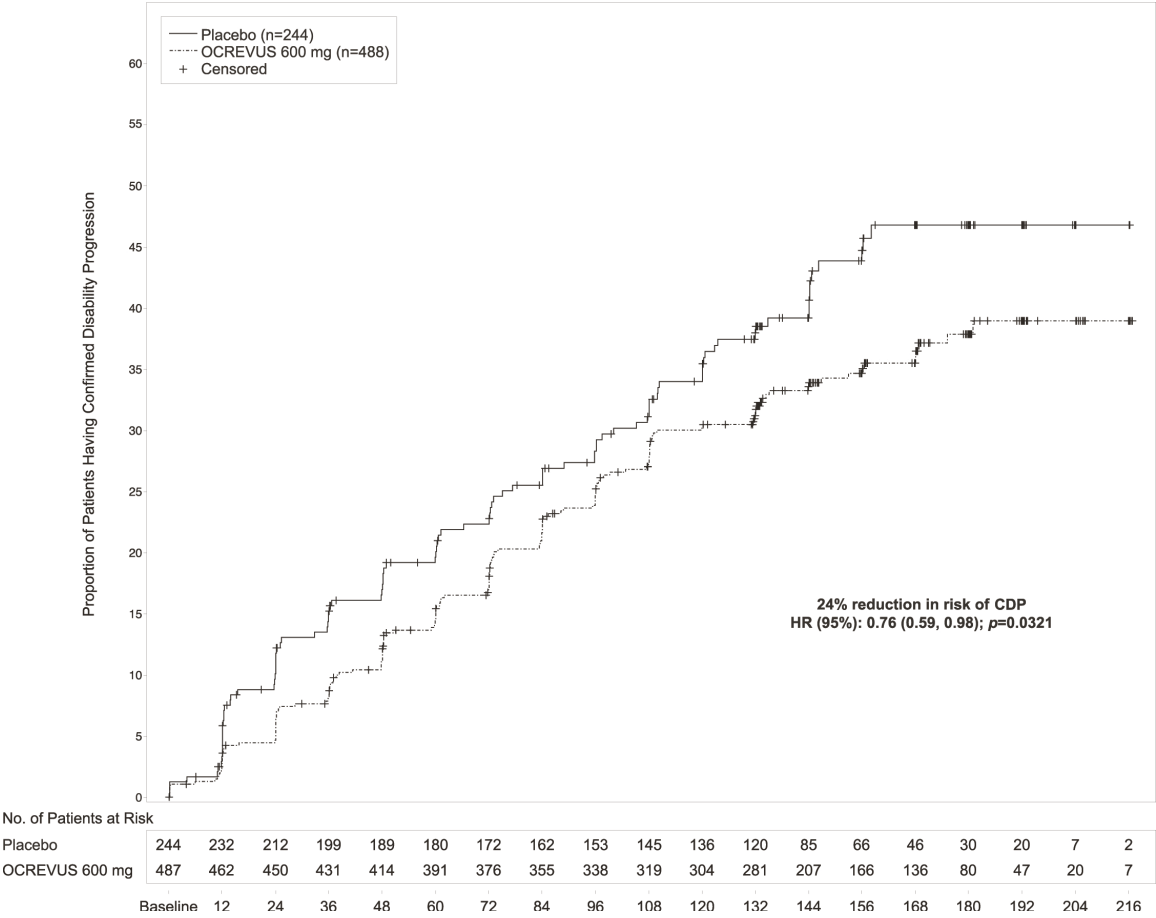
Study 3 randomized 488 patients to OCREVUS and 244 to placebo; 21% of OCREVUS-treated patients and 34% of placebo-treated patients did not complete the trial. The baseline demographic and disease characteristics were balanced between the two treatment groups. At baseline, the mean age of patients was 45; 49% were female. The mean time since symptom onset was 6.7 years, the mean EDSS score was 4.7, and 26% had one or more T1 Gd-enhancing lesions at baseline; 88% of patients had not been treated previously with a non-steroid treatment for MS. The time to onset of disability progression confirmed at 12 weeks after onset was significantly longer for OCREVUS-treated patients than for placebo-treated patients (see Figure 2). Results for Study 3 are presented in Table 5 and Figure 2.

**Table 5            Key Clinical and MRI Endpoints in PPMS patients for Study 3**

Endpoints	Study 3	
	OCREVUS 600 mg (two 300 mg infusions two weeks apart every 24 weeks) N=488	Placebo     N=244
Clinical Outcomes		
Proportion of patients with 12-week Confirmed Disability Progression <sup>1</sup>	32.9%	39.3%
Risk reduction	24%; p=0.0321	
MRI Endpoints		
Mean change in volume of T2 lesions, from baseline to Week 120 (cm <sup>3</sup> )	-0.39	0.79
	p<0.0001	

<sup>1</sup> Defined as an increase of 1.0 point or more from the baseline EDSS score for patients with baseline score of 5.5 or less, or an increase of 0.5 or more when the baseline score is more than 5.5

**Figure 2 Kaplan-Meier Plot of Time to Onset of Confirmed Disability Progression Sustained for at Least 12 Weeks with the Initial Event of Neurological Worsening Occurring During the Double-blind Treatment Period in Study 3\***



\*All patients in this analysis had a minimum of 120 weeks of follow-up. The primary analysis is based on all disability progression events accrued including 21 without confirmatory EDSS at 12 weeks.

In the overall population in Study 3, the proportion of patients with 20 percent worsening of the timed 25-foot walk confirmed at 12 weeks was 49% in OCREVUS-treated patients compared to 59% in placebo-treated patients (25% risk reduction).

In exploratory subgroup analyses of Study 3, the proportion of female patients with disability progression confirmed at 12 weeks after onset was similar in OCREVUS-treated patients and placebo-treated patients (approximately 36% in each group). In male patients, the proportion of patients with disability progression confirmed at 12 weeks after onset was approximately 30% in OCREVUS-treated patients and 43% in placebo-treated patients. Clinical and MRI endpoints that generally favored OCREVUS numerically in the overall population, and that showed similar trends in both male and female patients, included annualized relapse rate, change in T2 lesion volume, and number of new or enlarging T2 lesions.

**16 HOW SUPPLIED/STORAGE AND HANDLING**

OCREVUS (ocrelizumab) injection is a preservative-free, sterile, clear or slightly opalescent, and colorless to pale brown solution supplied as a carton containing one 300 mg/10 mL (30 mg/mL) single-dose vial (NDC 50242-150-01).

Store OCREVUS vials at 2°C–8°C (36°F–46°F) in the outer carton to protect from light. Do not freeze or shake.

**17 PATIENT COUNSELING INFORMATION**

Advise the patient to read the FDA-approved patient labeling (Medication Guide).

### Infusion Reactions

Inform patients about the signs and symptoms of infusion reactions, and that infusion reactions can occur up to 24 hours after infusion. Advise patients to contact their healthcare provider immediately for signs or symptoms of infusion reactions [see *Warnings and Precautions* (5.1)].

### Infection

Advise patients to contact their healthcare provider for any signs of infection during treatment or after the last dose [see *Clinical Pharmacology* (12.2)]. Signs include fever, chills, constant cough, or signs of herpes such as cold sore, shingles, or genital sores [see *Warnings and Precautions* (5.2)].

Advise patients that PML has happened with drugs that are similar to OCREVUS and may happen with OCREVUS. Inform the patient that PML is characterized by a progression of deficits and usually leads to death or severe disability over weeks or months. Instruct the patient of the importance of contacting their doctor if they develop any symptoms suggestive of PML. Inform the patient that typical symptoms associated with PML are diverse, progress over days to weeks, and include progressive weakness on one side of the body or clumsiness of limbs, disturbance of vision, and changes in thinking, memory, and orientation leading to confusion and personality changes [see *Warnings and Precautions* (5.2)].

Advise patients that OCREVUS may cause reactivation of hepatitis B infection and that monitoring will be required if they are at risk [see *Warnings and Precautions* (5.2)].

### Vaccination

Advise patients to complete any required live or live-attenuated vaccinations at least 4 weeks and, whenever possible, non-live vaccinations at least 2 weeks prior to initiation of OCREVUS. Administration of live-attenuated or live vaccines is not recommended during OCREVUS treatment and until B-cell recovery [see *Warnings and Precautions* (5.2)].

### Malignancies

Advise patients that an increased risk of malignancy, including breast cancer, may exist with OCREVUS. Advise patients that they should follow standard breast cancer screening guidelines [see *Warnings and Precautions* (5.3)].

### Pregnancy

Instruct patients that if they are pregnant or plan to become pregnant while taking OCREVUS they should inform their healthcare provider [see *Pregnancy* (8.1)].

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### **OCREVUS® [ocrelizumab]**

Manufactured by:

**Genentech, Inc.**

A Member of the Roche Group

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U.S. License No. 1048

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## MEDICATION GUIDE

OCREVUS® (oak-rev-us)

(ocrelizumab)

injection, for intravenous use

### What is the most important information I should know about OCREVUS?

#### OCREVUS can cause serious side effects, including:

- **Infusion reactions:** OCREVUS can cause infusion reactions that can be serious and require you to be hospitalized. You will be monitored during your infusion and for at least 1 hour after each infusion of OCREVUS for signs and symptoms of an infusion reaction. Tell your healthcare provider or nurse if you get any of these symptoms:

- |                        |                                   |                          |                       |
|------------------------|-----------------------------------|--------------------------|-----------------------|
| ○ itchy skin           | ○ trouble breathing               | ○ nausea                 | ○ shortness of breath |
| ○ rash                 | ○ throat irritation or pain       | ○ headache               | ○ fatigue             |
| ○ hives                | ○ feeling faint                   | ○ swelling of the throat | ○ fast heart beat     |
| ○ tiredness            | ○ fever                           | ○ dizziness              |                       |
| ○ coughing or wheezing | ○ redness on your face (flushing) |                          |                       |

**These infusion reactions can happen for up to 24 hours after your infusion.** It is important that you call your healthcare provider right away if you get any of the signs or symptoms listed above after each infusion.

If you get infusion reactions, your healthcare provider may need to stop or slow down the rate of your infusion.

- **Infection:**

- OCREVUS increases your risk of getting upper respiratory tract infections, lower respiratory tract infections, skin infections, and herpes infections. Tell your healthcare provider if you have an infection or have any of the following signs of infection including fever, chills, a cough that does not go away, or signs of herpes (such as cold sores, shingles, or genital sores). These signs can happen during treatment or after you have received your last dose of OCREVUS. If you have an active infection, your healthcare provider should delay your treatment with OCREVUS until your infection is gone.
- **Progressive Multifocal Leukoencephalopathy (PML):** Although no cases have been seen with OCREVUS treatment in clinical trials, PML may happen with OCREVUS. PML is a rare brain infection that usually leads to death or severe disability. Tell your healthcare provider right away if you have any new or worsening neurologic signs or symptoms. These may include problems with thinking, balance, eyesight, weakness on 1 side of your body, strength, or using your arms or legs.
- **Hepatitis B virus (HBV) reactivation:** Before starting treatment with OCREVUS, your healthcare provider will do blood tests to check for hepatitis B viral infection. If you have ever had hepatitis B virus infection, the hepatitis B virus may become active again during or after treatment with OCREVUS. Hepatitis B virus becoming active again (called reactivation) may cause serious liver problems including liver failure or death. Your healthcare provider will monitor you if you are at risk for hepatitis B virus reactivation during treatment and after you stop receiving OCREVUS.
- **Weakened immune system:** OCREVUS taken before or after other medicines that weaken the immune system could increase your risk of getting infections.

### What is OCREVUS?

OCREVUS is a prescription medicine used to treat adults with relapsing or primary progressive forms of multiple sclerosis.

It is not known if OCREVUS is safe or effective in children.

### Who should not receive OCREVUS?

- **Do not** receive OCREVUS if you have an active hepatitis B virus (HBV) infection.
- **Do not** receive OCREVUS if you have had a life threatening allergic reaction to OCREVUS. Tell your healthcare provider if you have had an allergic reaction to OCREVUS or any of its ingredients in the past. See **“What are the ingredients in OCREVUS?”** for a complete list of ingredients in OCREVUS.

### Before receiving OCREVUS, tell your healthcare provider about all of your medical conditions, including if you:

- have or think you have an infection. See **“What is the most important information I should know about OCREVUS?”**
- have ever taken, take, or plan to take medicines that affect your immune system, or other treatments for MS. These medicines could increase your risk of getting an infection.
- have ever had hepatitis B or are a carrier of the hepatitis B virus.
- have had a recent vaccination or are scheduled to receive any vaccinations.
  - **You should receive any required ‘live’ or ‘live-attenuated’ vaccines at least 4 weeks before you start treatment with OCREVUS.** You **should not receive** ‘live’ or ‘live-attenuated’ vaccines while you are being treated with OCREVUS and until your healthcare provider tells you that your immune system is no longer weakened.
  - **When possible, you should receive any ‘non-live’ vaccines at least 2 weeks before you start treatment with OCREVUS.** If you would like to receive any non-live (inactivated) vaccines, including the seasonal flu vaccine, while you are being treated with OCREVUS, talk to your healthcare provider.
  - If you are pregnant or planning to become pregnant talk to your doctor about vaccinations for your baby, as some precautions may be needed.

- are pregnant, think that you might be pregnant, or plan to become pregnant. It is not known if OCREVUS will harm your unborn baby. You should use birth control (contraception) during treatment with OCREVUS and for 6 months after your last infusion of OCREVUS.
- are breastfeeding or plan to breastfeed. It is not known if OCREVUS passes into your breast milk. Talk to your healthcare provider about the best way to feed your baby if you take OCREVUS.

**Tell your healthcare provider about all the medicines you take**, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

#### **How will I receive OCREVUS?**

- OCREVUS is given through a needle placed in your vein (intravenous infusion) in your arm.
- Before treatment with OCREVUS, your healthcare provider will give you a corticosteroid medicine and an antihistamine to help reduce infusion reactions (make them less frequent and less severe). You may also receive other medicines to help reduce infusion reactions. See **“What is the most important information I should know about OCREVUS?”**
- Your first full dose of OCREVUS will be given as 2 separate infusions, 2 weeks apart. Each infusion will last about 2 hours and 30 minutes.
- Your next doses of OCREVUS will be given as one infusion every 6 months. These infusions will last about 3 hours and 30 minutes.

#### **What are the possible side effects of OCREVUS?**

**OCREVUS may cause serious side effects, including:**

- See **“What is the most important information I should know about OCREVUS?”**
- **Risk of cancers (malignancies) including breast cancer.** Follow your healthcare provider's instructions about standard screening guidelines for breast cancer.

Most common side effects include infusion reactions and infections. See **“What is the most important information I should know about OCREVUS?”**

These are not all the possible side effects of OCREVUS.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

#### **General information about the safe and effective use of OCREVUS.**

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use OCREVUS for a condition for which it was not prescribed. Do not give OCREVUS to other people, even if they have the same symptoms that you have. It may harm them. You can ask your pharmacist or healthcare provider for information about OCREVUS that is written for health professionals.

#### **What are the ingredients in OCREVUS?**

**Active ingredient:** ocrelizumab

**Inactive ingredients:** glacial acetic acid, polysorbate 20, sodium acetate trihydrate, trehalose dihydrate.

Manufactured by: Genentech, Inc., A Member of the Roche Group, 1 DNA Way, South San Francisco, CA 94080-4990

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For more information, go to [www.OCREVUS.com](http://www.OCREVUS.com) or call 1-844-627-3887.