

WebMD

THROUGH OUR LENS

FALL 2023

MULTIPLE SCLEROSIS

GOOD TO KNOW

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“When other races would present with symptoms of MS, doctors would disqualify them because the patients were not young and White.”

— Annette Howard, MD, medical director of the Multiple Sclerosis Institute of Texas in Houston

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GETTY IMAGES

THE LATEST ON

Multiple Sclerosis



MS BRAIN FOG

Up to 60% of people with MS have problems with memory or thinking clearly. **Black people might be among those at greatest risk.** A very small group of White, Black, and Hispanic people with MS took a test that doctors often use to detect the earliest signs of cognitive decline. Though everyone in the study was similar in age, physical abilities, and how long they'd had MS, Black and Hispanic people scored significantly lower on the thinking skills test. More research is needed to confirm this connection, and it takes more testing to diagnose a real problem.

SOURCE: *Multiple Sclerosis and Related Disorders*

DOES RACE PLAY A ROLE IN TREATMENT OPTIONS?

A recent study finds that MRIs of Black people with MS are worse than those of White people. The images tend to reveal more damage and scarring in the central nervous system and more loss of brain volume. It's likely a combination of factors that makes MS more severe for some Black people. Among those factors, the study shows, is that Black people respond to treatments differently. For example, drugs called anti-CD20s might be better for Black people than beta interferons. Ask your doctor whether your race might play a part in treatment choice.

SOURCE: *Frontiers in Neurology*

16

Average number of years with MS before a Black person needs to use a cane.

SOURCE: *Neurology*

BE A PART OF THE SOLUTION

For a long time, experts believed that Black people didn't get MS. Though that's been proven wrong, **Black people are still grossly underrepresented in research about MS. That makes it hard to learn how the disease and treatments might affect people of color differently.** A new initiative aims to change that. A team of doctors and scientists launched the National African Americans with MS Registry. Black people who have MS can join the registry and learn about opportunities to participate in research and advance understanding of the unique ways MS affects them.

SOURCES: National Multiple Sclerosis Society and National African Americans with MS Registry



3 in 1,000

Estimated number of Black Americans who have MS.

SOURCE: *JAMA Neurology*

STATS & FACTS

By Sonya Collins Reviewed by Brunilda Nazario, MD, WebMD Chief Physician Editor, Medical Affairs

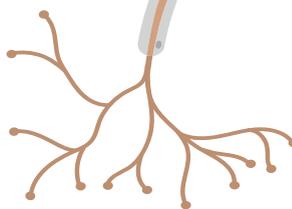
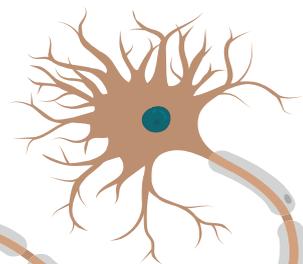
UP TO
4x

How many more Black women have MS than Black men.



33

Average age when MS starts in Black people.



18

Average number of years before relapsing-remitting MS becomes secondary progressive MS in Black people.

>3 in 5



Number of people that need to switch to more powerful MS drugs who are Black.

1 in 10

Number of people with MS who are Black.



NEARLY **50%**

Number of people that switch medications due to bad side effects who are Black.

SOURCES: JAMA Neurology, Neurology, UTHealth Houston



CHECK YOUR MS KNOWLEDGE

Separate facts from fiction and be your own best advocate

By Kendall K. Morgan

Reviewed by Brunilda Nazario, MD, WebMD Chief Physician Editor, Medical Affairs

You've got ideas about what it means to have MS. But MS today is different from MS in the past, and there's plenty of misinformation out there. Getting clear on the facts is essential for advocating for yourself and educating the people around you.

"I definitely stress and encourage self-advocacy," says Kalina Sanders, MD, a neurologist at Baptist Health in Jacksonville, FL. "You want to make sure you're getting your questions answered, that you're knowledgeable about the available resources, and are encouraged to understand what is going on with your self-care, particularly if you're not feeling heard."

WHO GETS MS?

One common myth may have you wondering how you could even have MS. People used to think it primarily affected young, White women. But Sanders says people of all races and ethnic groups get MS.

Women do get MS more often than men do. But one study found MS is diagnosed at a similar rate in Black and White people. In young adults ages 18 to 24, MS was highest in Black and Hispanic people compared to White or Asian people. MS is prevalent in the Black community, but that fact hasn't gotten the attention it deserves.

"There is still this misconception that African Americans are less affected than Caucasian Americans, and we know that it's not that," Sanders says.

WILL MY MS PROGRESS MORE QUICKLY?

Some past studies suggest MS in Black people may progress faster and have worse outcomes, but these inequalities are more likely explained by social factors including systemic racism than genetic differences. Sanders also says it's hard to be certain of such differences because Black people aren't well represented in most studies.

Apparent differences in MS progression can arise from a lack of MS awareness in the Black community and diagnosis at a later stage, Sanders notes. Medical mistrust and reduced access to health care can further delay diagnosis and treatment to worsen outcomes.

"I don't think we've hashed out the biology and whether there is a physiologic difference," she says.

MS AND PREGNANCY

There's a common myth that people with MS will have a hard time getting pregnant and having kids. But MS won't affect your fertility or ability to carry a baby. Talk to your doctor in advance about what pregnancy and breastfeeding will mean for your MS treatment.

Whatever your questions or life goals may be after an MS diagnosis—whether it's getting pregnant or something else—speak up so your care team knows.

"Make sure your provider is addressing your concerns and then making sure you're on the appropriate medication," Sanders says. "You want what is happening and how your disease is cared for to align with your desires and expectations."

MS IN BLACK PEOPLE

How the disease impacts our community

By Rachel Reiff Ellis

Reviewed by Brunilda Nazario, MD, WebMD Chief Physician Editor, Medical Affairs



When you have multiple sclerosis, an abnormal immune system response in your body causes inflammation in your central nervous system—your brain, spinal cord, and optic nerve. This inflammation damages the covering called myelin that insulates your nerves.

When myelin is damaged, the flow of information in your brain and from your brain to the rest of your body gets interrupted. This causes symptoms such as numbness, trouble walking, vision issues, fatigue, and changes in thinking ability.

Until recently, the medical community considered multiple sclerosis a rare disease in the Black community. In reality, about 3 out of every 1,000 Black Americans lives with MS, compared to 4 out of every 1,000 White Americans.

“The idea of its rarity [in the Black community] has been debunked,” says Dorlan J. Kimbrough, MD, a neurologist at Duke Neurological Disorders Clinic and assistant professor of neurology at Duke University School of Medicine in Durham, NC. “Epidemiological studies during the past several years have revealed that the incidence of MS in Black people is typical of expected rates in the U.S., if not disproportionately higher in some regions.”

MISSED DIAGNOSES

Research shows that when it comes to total numbers, MS is highest in the White community. But when it comes to incidence (number of new cases), the picture looks different: A study on women showed that the number of new cases is higher in Black women than in White women.

“MS used to be known as a young White woman’s disease,” says Annette Howard, MD, medical director of the Multiple Sclerosis Institute of Texas in Houston and member of the MSAA African American Advisory Board.

Because of this, she says, doctors have often overlooked MS as a diagnosis in Black adults, even when they have symptoms of the disease.

“When other races would present with symptoms of MS, doctors would disqualify them because the patients were not young and White,” she says. “They may come in and have the same symptoms of MS and think it’s

SO YOU HAVE MS

Annette Howard, MD, recommends first steps after an MS diagnosis.

- ★ **Partner with an MS specialist.** One who listens and meets your needs.
- ★ **Reach out.** Take part in support communities.
- ★ **Share your status.** Tell friends and family about your MS so they know your needs.



a stroke just because they're Black, or because they have high blood pressure or diabetes and then miss a diagnosis of MS because they'll focus on that. You even have patients who report that doctors say, 'If I didn't know any better, I'd think you had MS,' and then that's exactly what they have."

REPRESENTATION IN RESEARCH

MS may affect Black people differently than it does White people, too, with faster progression and more complications. This may be because of delayed treatment.

"In some cases, Black patients may have been diagnosed or treated later in the disease course, leading to greater disability before the start of treatment," Kimbrough says.

But minority populations are also underrepresented in clinical trials in the U.S. A study of four clinical trials in 2017 to 2020 that resulted in FDA-approved drugs for MS showed the trials had only 0.5% to 5.3% Black participants.

Because this limits the data available on MS in Black adults, it's harder for doctors to make informed decisions about how treatments will work in their Black patients. Also lacking is the information on how the environment for Black populations may affect their risk of MS and outcomes with the disease.

"There is ongoing research to evaluate the impact of social determinants of health on the long-term course of MS progression," Kimbrough says.

GETTING ACCURATE NUMBERS

Researchers are working to get a better understanding of what kind of impact MS has in the Black community, and that includes an accurate record of those living with the disease.

"In 2020, three other colleagues and I started an African American MS registry," Howard says. "Our objective is to capture through demographic information the estimated 30,000 African Americans who have a diagnosis of MS in the United States."

Through the registry, Howard says, patients receive a survey to get their demographic information. In return, the registry provides newsletters about MS issues, including emerging treatments and clinical trial information.

WHAT CAUSES MS?

Doctors haven't found a single cause of the disease, but several factors play a part.

- ★ Genes
- ★ Your sex
- ★ Viral infections
- ★ Vitamin D levels
- ★ Environment

HOW MS CAN LOOK AND PROGRESS

Unique aspects of the disease to know as a Black person

By Rachel Reiff Ellis

Reviewed by Brunilda Nazario, MD, WebMD Chief Physician Editor, Medical Affairs



According to the National Multiple Sclerosis Society, Black adults with MS experience a different journey through their disease than other races do. Compared to White adults, for example, MS in Black adults progresses more quickly and causes more symptoms—and these symptoms are often more severe.

“Some studies have shown that the clinical course of MS, meaning how the disease plays out after a person is diagnosed, can be different within the different demographic groups, but we don’t clearly understand why,” says Tirisham Gyang, MD, clinical assistant professor of neurology at The Ohio State University Wexner Medical Center in Columbus. “But generally, we have seen that there is more rapid accelerated progression of disease and more long-term disabilities in Black

people compared to White people.”

Here are some specific ways this may show up:

SYMPTOMS

Often MS symptoms are more severe for Black adults. And at the time of your diagnosis, you’re more likely to have multiple symptoms instead of just one.

Compared to other populations, this can look like:

- More walking, balance, and coordination problems
- More cognitive and visual symptoms
- More frequent relapses with poorer recovery

Gyang says studies following MRI

scans and optical coherence tomography (OCT) tests, which look at the back of the eye, have shown that Black people with MS tend to experience more brain and optic nerve damage more quickly as well.

This can lead to the need to use assistance such as a cane or wheelchair sooner than White people with MS.

COMPLICATIONS

You’re more likely to be older at the age of your diagnosis if you’re Black. The average age for Black adults at time of diagnosis is around 33, and for White adults, it’s 31. Later diagnoses often mean more disease progression before treatment begins, which may be part of the reason for more severe symptoms and earlier permanent problems for Black adults.



SCAN ME

Want to read this guide on the go? Use your mobile phone camera to activate the QR code.

“Disability in general correlates with more complications, so if you have more disability long term, you’re more likely to have more complications,” Gyang says.

Some complications of MS include severe weakness or paralysis, usually in the legs, bladder and bowel problems, sexual function issues, mental health issues, and rarely, seizures.

LONG-TERM OUTLOOK

Some people with MS transition from the relapsing-remitting form of the disease (RRMS) to the secondary progressive form (SPMS). This form progresses more slowly and has fewer relapses but is generally worse overall. Black adults with MS transition more quickly from RRMS to SPMS.

“Studies are showing us that Black patients with MS aren’t living as

long as others with the disease,” says Shannon Seals, MD, a neurologist at Ochsner Health in Gretna, LA.

“But the earlier the diagnosis, and the earlier the treatment with disease-modifying therapy, the greater the chance of slowing down the disease and minimizing disability.”

Black people may also respond differently to certain treatments for MS. Clinical trials studying this are ongoing now.

Gyang agrees that the outlook for the future of MS is brighter than it’s ever been.

“We are in a time where there are very effective treatments for MS,” she says. “Early treatment correlates with less disability, and so we really want people, as soon as they’re diagnosed, to consider getting a good treatment, a treatment that is effective.”

GOOD SYMPTOM MANAGEMENT

Tirisham V. Gyang, MD, shares MS treatment advice.

- ★ **Don’t wait.** Start treatment even if your symptoms aren’t severe.
- ★ **Go to an MS center.** See a specialist trained in MS.
- ★ **Get regular MRIs.** This shows your doctor how controlled your disease is.

MY LIFE WITH MS

Here's why I'm taking an active role in my health

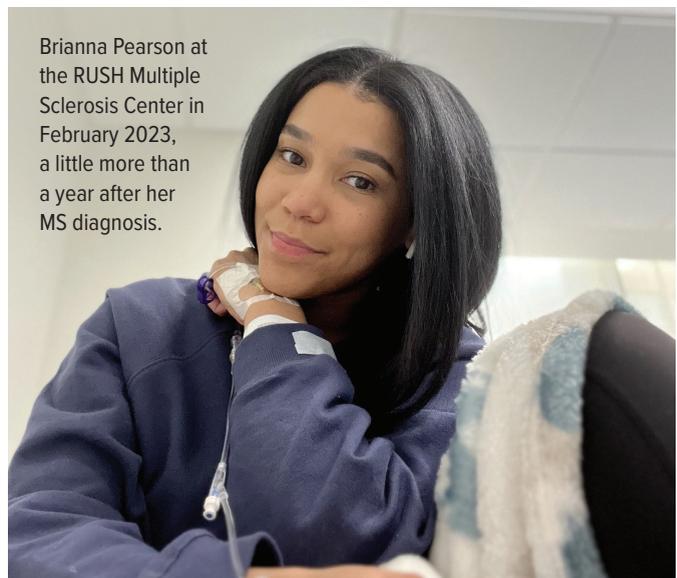
By Brianna Pearson

Reviewed by Brunilda Nazario, MD,
WebMD Chief Physician Editor, Medical Affairs

Multiple sclerosis (MS) came as a very unwelcome 1-year anniversary gift. I had moved to Chicago from Detroit, was newly married, and had just had my “honeymoon” baby. It was the middle of the [COVID-19] pandemic, and I, like so many others, was trying to navigate this new normal. Then, my life changed drastically.

MY DIAGNOSIS

The day of my first wedding anniversary, I woke up with what looked like a stripe in front of my eye. My vision was very cloudy. I didn't want to miss dinner with my husband and the celebration, so I promised to go to the urgent eye center the next day. I really blew it off and thought that maybe my toddler had headbutted me in the eye during my sleep. The eye doctor said that it looked like optic neuritis and that I should go to the doctor immediately as that is often a sign of MS. My mind was swirling. At this time, COVID was surging again and I had a long wait in



Brianna Pearson at the RUSH Multiple Sclerosis Center in February 2023, a little more than a year after her MS diagnosis.

SHAPECHARGE/VIA GETTY IMAGES; INSET PHOTO COURTESY OF BRIANNA PEARSON



with a list of side effects and risks. Some options were ruled out due to my medical history. It was all so overwhelming.

A STABLE PLACE

A lot has happened in the past 2 years. In addition to getting a diagnosis that has changed my life, I've seen my true strength. I've been diligent about researching my treatments, getting second opinions, and being honest with my doctors about my questions or concerns. I still have bad days, but I've taken an active role in my health—I changed my diet, I try to move a little more, and I see a therapist for my mental health. I've joined a support group for other women of color with MS and attended a wellness retreat. It was life-changing to walk into a room to see women who look like me who are all battling MS. I've become more confident in telling my story—hopefully to help others.



BRIANNA'S TIPS

 **Connect.** My MS group for Black women gave me much-needed love, support, and validation.

 **Track.** Bring a list of symptoms to your doctor.

 **Research.** Study treatment options for yourself.

the emergency room to get an MRI. My spinal tap was done in a storage closet because the hospital was full. After getting my results, the doctor came in and said the words: multiple sclerosis. He confirmed lesions were on my brain and spine. I was in shock, and he basically sent me on my way.

THINGS MOVE FAST

I wanted to get an appointment with an MS specialist right away, but unfortunately, there was a wait. I had another relapse, and by the time I got an appointment, I had lost vision in my left eye. My diagnosis journey was fast-tracked compared to so many people. Although I was pointed in the right direction, the process of

getting treatment and recovery was tough. I left that hospital feeling unheard, undertreated, and dismissed. I ended up relapsing a month later while I was in the process of waiting for a referral. It wasn't until I took matters into my own hands and found a new hospital system that I got the help I needed. My MS doctor (who was so helpful) put me on a course of steroids right away and then monthly infusions. My symptoms began to fade, but my depression was only getting worse. Here I was a new wife, with a new baby, a blended family with three other children, and living in a new city. It was a lot! I felt like I was spiraling. I had so many decisions to make—each treatment came

BUILDING TRUST

What You Should Know About Today's MS Medications

By Kendall K. Morgan

Reviewed by Brunilda Nazario, MD,
WebMD Chief Physician Editor, Medical Affairs

There's no cure for MS, but medicines can modify the course of your disease now and into the future. The goal of disease-modifying therapy is to slow your disease progression and disability while preventing relapses. Many other medicines can help you with various symptoms people with MS often have, including fatigue, pain, depression, and more.

Oluwasheyi A. Ayeni, MD, is a neurologist who focuses on multiple sclerosis care at Kaiser Permanente Glendale Comprehensive Specialty Center in Atlanta. He says one of the first things he does with his MS patients and their family members is to dispel any outdated notions about the disease they may have while impressing upon them just how far MS treatment has come.

"[Many still think] it's a crippling disease and puts people in diapers or a nursing home, or maybe it's a death sentence or inevitable that you'll progress to a wheelchair," he says. "I let people know that's not the case. The way we view the diagnosis and treatment of MS today is completely

different from the 1990s or even the 2000s. There are a lot of treatments available. Even though it is not curable, it is very treatable."

WHAT TO EXPECT

The nature of your treatment for MS will depend on which medicines you and your doctor choose together. You may take medicines that come in different forms. You may take injections you can give yourself under your skin or in your muscle. You may instead go in for infusions at your doctor's office or at an infusion center. If you take pills, Ayeni says they may be once or twice a day.

Follow your doctor's advice to ensure you're taking your medicine as prescribed. Ask about side effects and how to manage them. For instance, Ayeni says after an injection, you may feel achy. You may need to rest or drink water. Pills you take may cause an upset stomach

or fatigue. Between treatments, Ayeni says, strive to live your life as normally as you wish.

DO YOUR PART

Ayeni explains that disease-modifying treatments for MS are designed to halt the underlying inflammation to stop relapses, disease progression, and disability. But they won't get rid of inflammation that has already built up over time or repair damage that's already taken place. Along with the medicine, steps you take to improve your general health are critical, too.

"The medicines quiet things down in the background so that you can do everything out front," Ayeni says. "Find a good diet and exercise plan. Get the resources you need for your mental health. Make sure you're sleeping well and not smoking. Do all those things to strengthen your mind and body to get better."



SCAN ME

For more on treatments, watch this video on **B-Cell Therapy for Multiple Sclerosis**. Use your mobile phone camera to activate the QR code.





SEE WHAT ONCE-MONTHLY* KESIMPTA CAN DO FOR YOUR RMS



RACHEL W.
On KESIMPTA® since 2020

RMS, relapsing multiple sclerosis.

*Once monthly after 3 weekly starter doses.

Rachel W. has taken KESIMPTA and has been compensated for her time.

Check out how the KESIMPTA Sensoready® Pen works! Scan here.



Indication

What is KESIMPTA (ofatumumab) injection?

KESIMPTA is a prescription medicine used to treat adults with relapsing forms of multiple sclerosis (MS) including clinically isolated syndrome (CIS), relapsing-remitting disease, and active secondary progressive disease.

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

Important Safety Information

Who should not take KESIMPTA?

Do NOT take KESIMPTA if you have active hepatitis B virus (HBV) infection.

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

KESIMPTA can cause serious side effects such as:

- **Infections.** Serious infections can happen during treatment with KESIMPTA. If you have an active infection, your healthcare provider (HCP) should delay your treatment with KESIMPTA until your infection is gone. KESIMPTA taken before or after other medicines that weaken the immune system may increase your risk of getting infections. Tell your HCP right away if you have any infections or get any symptoms including painful and frequent urination, nasal congestion, runny nose, sore throat, fever, chills, cough, or body aches.
- **HBV reactivation.** If you have ever had HBV infection, it may become active again during or after treatment

with KESIMPTA (reactivation). If this happens, it may cause serious liver problems including liver failure or death. Before starting KESIMPTA, your HCP will do a blood test to check for HBV. They will also continue to monitor you during and after treatment with KESIMPTA for HBV. Tell your HCP right away if you get worsening tiredness or yellowing of your skin or the white part of your eyes.

- **Progressive Multifocal Leukoencephalopathy (PML).** PML may happen with KESIMPTA. PML is a rare, serious brain infection caused by a virus that may get worse over days or weeks. PML can result in death or severe disability. Tell your HCP right away if you have any new or worsening neurologic signs or symptoms. These may include weakness on one side of your body, loss of coordination in arms and legs, vision problems, changes in thinking and memory, which may lead to confusion and personality changes.
- **Weakened immune system.** KESIMPTA taken before or after other medicines that weaken the immune system could increase your risk of getting infections.

Before you take KESIMPTA, tell your HCP about all your medical conditions, including if you:

- Have or think you have an infection including HBV or PML.
- Have ever taken, currently take, or plan to take medicines that affect your immune system. These medicines

could increase your risk of getting an infection.

- 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 KESIMPTA. You should not receive 'live' or 'live-attenuated' vaccines while you are being treated with KESIMPTA and until your HCP tells you that your immune system is no longer weakened.
 - Whenever possible, you should receive any 'non-live' vaccines at least 2 weeks before you start treatment with KESIMPTA.
 - Talk to your HCP about vaccinations for your baby if you used KESIMPTA during your pregnancy.
- Are pregnant, think that you might be pregnant, or plan to become pregnant. It is not known if KESIMPTA will harm your unborn baby. Females who can become pregnant should use birth control (contraception) during treatment with KESIMPTA and for 6 months after your last treatment. Talk with your HCP about what birth control method is right for you during this time.
- Are breastfeeding or plan to breastfeed. It is not known if KESIMPTA passes into your breast milk. Talk to your HCP about the best

Please see additional Important Safety Information on back cover and accompanying Consumer Brief Summary on the following page.

The risk information provided here is not comprehensive. This information does not take the place of talking with your doctor about your medical condition or treatment.

To learn more about KESIMPTA (ofatumumab) injections, talk to your doctor or pharmacist. For more information and to obtain the FDA-approved product labeling, call 1-888-669-6682 or visit www.kesimpta.com.

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

KESIMPTA can cause serious side effects, including:

Infections. Serious infections can happen during treatment with KESIMPTA. If you have an active infection, your healthcare provider should delay your treatment with KESIMPTA until your infection is gone. KESIMPTA taken before or after other medicines that weaken the immune system may increase your risk of getting infections.

Tell your healthcare provider right away if you have any infections or get any symptoms including painful and frequent urination, nasal congestion, runny nose, sore throat, fever, chills, cough, or body aches.

- **Hepatitis B virus (HBV) reactivation.** Before starting treatment with KESIMPTA, your healthcare provider will do blood tests to check for HBV. If you have ever had HBV infection, the HBV may become active again during or after treatment with KESIMPTA. Hepatitis B virus becoming active again (called reactivation) may cause serious liver problems including liver failure or death. You should not receive KESIMPTA if you have active hepatitis B liver disease. Your healthcare provider will monitor you for HBV infection during and after you stop using KESIMPTA. Tell your healthcare provider right away if you get worsening tiredness or yellowing of your skin or white part of your eyes during treatment with KESIMPTA.

- **Progressive Multifocal Leukoencephalopathy (PML).** PML may happen with KESIMPTA. PML is a rare, serious brain infection caused by a virus that may get worse over days or weeks. PML can result in death or severe disability. Tell your healthcare provider right away if you have any new or worsening neurologic signs or symptoms. These may include weakness on one side of your body, loss of coordination in arms and legs, vision problems, changes in thinking and memory which may lead to confusion and personality changes.

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What is KESIMPTA?

KESIMPTA is a prescription medicine used to treat adults with relapsing forms of multiple sclerosis (MS) including:

- clinically isolated syndrome
- relapsing-remitting disease
- active secondary progressive disease

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

Do not use KESIMPTA if you:

- have active hepatitis B virus infection.

Before using KESIMPTA, tell your healthcare provider about all of your medical conditions, including if you:

- have or think you have an infection, including HBV or PML. See **"What is the most important information I should know about KESIMPTA?"**
- have ever taken, currently take, or plan to take medicines that affect your immune system. These medicines could increase your risk of getting an infection.
- 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 KESIMPTA.** You should not receive 'live' or 'live-attenuated' vaccines while you are being treated with KESIMPTA and until your healthcare provider tells you that your immune system is no longer weakened.
 - **Whenever possible, you should receive any 'non-live' vaccines at least 2 weeks before you start treatment with KESIMPTA.**
 - Talk to your healthcare provider about vaccinations for your baby if you used KESIMPTA during your pregnancy.
- are pregnant, think that you might be pregnant, or plan to become pregnant. It is not known if KESIMPTA will harm your unborn baby. Females who can become pregnant should use birth control (contraception) during treatment with KESIMPTA and for 6 months after your last treatment. Talk with your healthcare provider about what birth control method is right for you during this time.
- are breastfeeding or plan to breastfeed. It is not known if KESIMPTA passes into your breast milk. Talk to your healthcare provider about the best way to feed your baby if you take KESIMPTA.

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

Know the medicines you take. Keep a list of them to show your healthcare provider and pharmacist when you get a new medicine.

How should I use KESIMPTA?

See the detailed Instructions for Use that comes with KESIMPTA for information about how to prepare and inject a dose of KESIMPTA and how to properly throw away (dispose of) used KESIMPTA Sensoready® pens or prefilled syringes.

- Use KESIMPTA exactly as your healthcare provider tells you to use it.
- KESIMPTA is given as an injection under your skin (subcutaneous injection), in your thigh or stomach-area (abdomen) by you or a caregiver. A caregiver may also give you an injection of KESIMPTA in your upper outer arm.
- Your healthcare provider will show you how to prepare and inject KESIMPTA the right way before you use it for the first time.
- **Do not** inject into areas where the skin is tender, bruised, red, scaly or hard. Avoid areas with moles, scars or stretch marks.
- The initial dosing is 20 mg of KESIMPTA given by subcutaneous injection at Weeks 0, 1, and 2. There is no injection at Week 3. Starting at Week 4 and then every month, the recommended dose is 20 mg of KESIMPTA administered by subcutaneous injection.

If you miss an injection of KESIMPTA at Week 0, 1, or 2, talk to your healthcare provider. If you miss a monthly injection, give it as soon as possible without waiting until the next scheduled dose. After that, give your KESIMPTA injections a month apart.

What are the possible side effects of KESIMPTA?

KESIMPTA may cause serious side effects, including:

See **"What is the most important information I should know about KESIMPTA?"**

- **Injection-related reactions.** Injection-related reactions is a common side effect of KESIMPTA. Injecting KESIMPTA can cause injection-related reactions that can happen within 24 hours (1 day) following the first injections and with later injections. Talk with your healthcare provider if you have any of these signs and symptoms:
 - **at or near the injection site:** redness of the skin, swelling, itching and pain or
 - **that may happen when certain substances are released in your body:** fever, headache, pain in the muscles, chills, and tiredness.
- **Low immunoglobulins.** KESIMPTA may cause a decrease in some types of antibodies. Your healthcare provider will do blood tests to check your blood immunoglobulin levels.

The most common side effects of KESIMPTA include:

- upper respiratory tract infection, with symptoms such as sore throat and runny nose, and headache. (See **"What is the most important information I should know about KESIMPTA?"**)
- headache

These are not all the possible side effects of KESIMPTA. Call your doctor for medical advice about side effects.

You may report side effects to FDA at 1-800-FDA-1088.

How should I store KESIMPTA?

- Store KESIMPTA in a refrigerator between 36°F to 46°F (2°C to 8°C).
- Keep KESIMPTA in the original carton until ready for use to protect from light.
- If needed, KESIMPTA may be stored for up to 7 days at room temperature, up to 86°F (30°C).
- Write the date taken out of the refrigerator in the space provided on the carton.
- If stored below 86°F (30°C), unused KESIMPTA may be returned to the refrigerator and must be used within the next 7 days. If this KESIMPTA is not used within those 7 days, then discard the medicine.
- Do not freeze KESIMPTA.
- Do not shake KESIMPTA.

Keep KESIMPTA and all medicines out of the reach of children.

General information about the safe and effective use of KESIMPTA.

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use KESIMPTA for a condition for which it was not prescribed. Do not give KESIMPTA 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 KESIMPTA that is written for health professionals.

What are the ingredients in KESIMPTA?

Active ingredient: ofatumumab

Inactive ingredients: Sensoready pen and prefilled syringe: arginine, disodium edetate, polysorbate 80, sodium acetate trihydrate, sodium chloride, and Water for Injection. Hydrochloric acid may be added.

MAGGIE S.
On KESIMPTA since 2022



KESIMPTA WAS DESIGNED TO BE DIFFERENT.

IT'S THE ONLY B-CELL TREATMENT FOR RELAPSING MS
YOU CAN TAKE AT HOME, ONCE A MONTH.*

KESIMPTA offers a powerful combination of benefits:



SUPERIOR AT REDUCING
the rate of relapses vs AUBAGIO[†]



PROVEN SAFETY
in 2 head-to-head studies[†]



LESS THAN ONE MINUTE A MONTH,
when ready to take[‡]

Scan to hear stories from patients like Maggie.



MS, multiple sclerosis.

*Once monthly after 3 weekly starter doses. [†]In 2 studies vs AUBAGIO (teriflunomide). [‡]Typical injection time when ready to take. Maggie S. has taken KESIMPTA and has been compensated for her time.

- way to feed your baby if you take KESIMPTA.

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

How should I use KESIMPTA?
See the detailed Instructions for Use that comes with KESIMPTA for information about how to prepare and inject a dose of KESIMPTA and how to properly throw away (dispose of) used KESIMPTA Sensoready pens or prefilled syringes.

- Use KESIMPTA exactly as your HCP tells you to use it.
- Your HCP will show you how to prepare and inject KESIMPTA the right way before you use it for the first time.
- **Do not** inject into areas where the

skin is tender, bruised, red, scaly or hard. Avoid areas with moles, scars, or stretch marks.

KESIMPTA may cause serious side effects including:

- **Injection-related reactions.** Injection-related reactions are a common side effect of KESIMPTA. Injecting KESIMPTA can cause injection-related reactions that can happen within 24 hours (1 day) following the first injections and with later injections. Talk with your HCP if you have any of these signs and symptoms:
 - **at or near the injection site:** redness of the skin, swelling, itching, and pain or
 - **that may happen when certain substances are released in your body:** fever, headache, pain in the

muscles, chills, and tiredness.

- **Low immunoglobulins.** KESIMPTA may cause a decrease in some types of antibodies. Your HCP will do blood tests to check your blood immunoglobulin levels.

The most common side effects of KESIMPTA include:

- Upper respiratory tract infection, with symptoms such as sore throat and runny nose, and headache.
- Headache.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Please see additional Important Safety Information and the accompanying Consumer Brief Summary inside.

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