COVID-19 (Coronavirus Disease 2019)

COVID-19 Monoclonal Antibody Treatments

Testing positive for COVID-19 can be an alarming moment, and one of your first questions to your health provider may be “Is there anything I can do to avoid getting sicker?” The good news is that there are currently two new medicines available called monoclonal antibody (mAB) treatments that may reduce your risk of severe COVID-19 symptoms. Depending on your age and medical history, you may qualify for a COVID-19 mAB treatment.

What is the difference between antibodies and monoclonal antibodies?

Our immune system naturally makes antibodies to fight off infections. When viruses or other germs infect us, our bodies produce antibodies that target that specific intruder. These antibodies can help destroy the germ or stop it from getting into your cells and making you sick. Antibodies also help your body remember the germ so in the future your immune system is prepared to attack it if it tries to infect you again.

Monoclonal antibodies are lab-made antibodies that restore, enhance, or mimic the ability of your immune system to fight off germs.¹ Just like the antibodies your immune system makes, monoclonal antibodies target a specific germ and help your body recognize it in the future.

How do COVID-19 monoclonal antibody treatments work?

The COVID-19 mAB treatments were designed to recognize and attack the virus that causes COVID-19 infection. The COVID-19 mAB treatments block the virus from entering your cells. By blocking entry into your cells, the COVID-19 mAB treatments stop the virus from making you sicker.

What COVID-19 monoclonal antibody treatments are available now?

Two COVID-19 mAB treatments received Early Use Authorization (EUA) from the U.S. Food and Drug Administration (FDA).²³ One mAB is from Eli Lilly and Company called “Bamlanivimab.” The other mAB, called “REGEN-COV,” is from Regeneron Pharmaceutical Inc..

Bamlanivimab contains a single mAB treatment, while REGEN-COV is an investigational cocktail treatment. This means that it is a combination of two mAB treatments in one (casirivimab and imdevimab). Both COVID-19 mAB treatments are authorized for non-hospitalized patients who have tested positive for COVID-19 in the last ten days, are 12 years of age and older, at least 88 pounds, and are at high risk of severe COVID-19 and/or hospitalization.²³

How are COVID-19 monoclonal antibody treatments given?

The two COVID-19 mABs currently available are administered into your bloodstream via your vein in one dose through an intravenous infusion (IV) for at least one hour.²³ Future treatments may be given differently.
How do I know if I or my child can get a COVID-19 monoclonal antibody treatment?

Your healthcare provider can help you determine if you or your child may be a candidate for a COVID-19 mAB treatment.

You may be a candidate for treatment if you’re:\n
- 65 years of age and older
- 55 years of age and older with:
  - Heart disease
  - OR high blood pressure
  - OR COPD/Chronic respiratory disease, including asthma.

Any age with:
- Obesity (a body mass index [BMI] of 35 or higher)
- OR diabetes (Type 1 or Type 2)
- OR chronic kidney disease
- OR a weakened immune system
- OR you’re taking medicine that weakens your immune system

Your child may be a candidate if they are:\n
- 12 to 17 years of age and at least 88 pounds with:
  - obesity (BMI greater than or equal to 85 percent of patients of the same age and gender)
  - OR regularly use medical technology such as a ventilator or feeding tube
  - OR have a developmental condition like cerebral palsy
  - OR sickle cell disease
  - OR congenital or acquired heart disease
  - OR asthma/chronic respiratory problems requiring daily medication for control

How were COVID-19 monoclonal antibody treatments made so quickly?

Researchers were able to create COVID-19 mAB treatments so quickly because mABs are not a new type of medicine. Researchers have been researching and creating treatments using mABs for over 30 years.

mABs were first discovered in 1975. In 1986, the FDA approved the first mAB treatment. As of December 2019, the FDA has approved 79 mAB treatments. Since their discovery, they have become a popular treatment model for various diseases.

Today, you can see mAB treatments being used for viral infections such as HIV, influenza, Ebola, and the Zika virus. mAB treatments are also used to treat other conditions such as asthma, Crohn’s disease, and rheumatoid arthritis. They also aid in the treatment of cancer.

How are COVID-19 monoclonal antibody treatments different than COVID-19 vaccines?

COVID-19 mAB treatments give your immune system the antibodies it needs to protect you by stopping the COVID-19 virus from entering your body’s cells. They can prevent severe illness if you are already infected with COVID-19.

COVID-19 vaccines train a healthy immune system to protect the body against future diseases. They provide active immunity by exposing your immune system to an imitation version of the COVID-19 virus or one of the specific viral proteins. This triggers your natural immune response and causes you to produce antibodies. Then, if you encountered the COVID-19 virus, you would already have the antibodies that recognize the virus and prevent diseases. With mABs, the antibodies are given to people directly to help treat the disease immediately.

References


