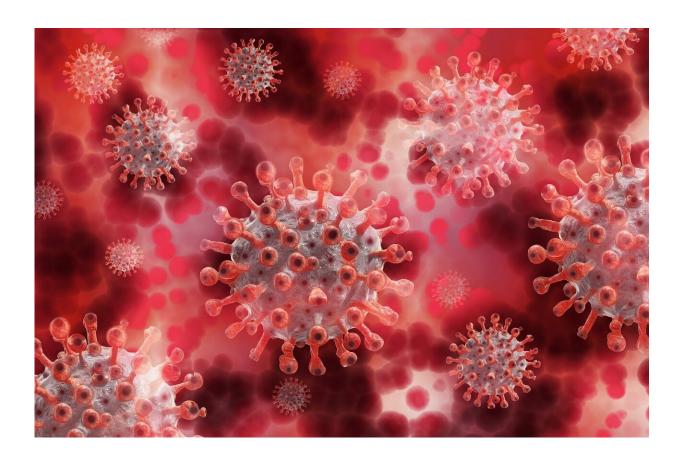


Q and A: COVID-19 treatment options

February 9 2022, by Cynthia Weiss



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DEAR MAYO CLINIC: My cousin was diagnosed with COVID-19 last summer and received monoclonal antibody therapy. Another one of my cousins recently was diagnosed with COVID-19 but did not get that treatment. What treatments for COVID-19 are available?



ANSWER: As COVID-19 continues to evolve and mutate, so do treatment options. While the best way to prevent the spread of COVID-19 is to get vaccinated, including a booster vaccination, several drugs are authorized to treat and prevent COVID-19 infection, including monoclonal antibody therapy.

Monoclonal antibody therapies are laboratory-produced proteins that serve as temporary immunity against COVID-19. The antibodies bind to SARS-CoV2, the virus that causes COVID-19, and prevent it from attaching to human cells. While these monoclonal antibody therapies have been used to treat COVID-19 since late 2020, some treatments have become less effective or ineffective as COVID-19 mutates.

Only sotrovimab may be effective against the omicron variant of COVID-19. As of early January, the omicron variant accounted for 98.3% of COVID-19 infections, according to the Centers for Disease Control and Prevention. The other two monocolonal antibody therapies, bamlanivimab plus etesevimab, and casirivimab plus imdevimab, are ineffective against the omicron variant and are no longer used.

Your cousin who was recently diagnosed with COVID-19 was most likely infected with the omicron variant. While the older monoclonal antibodies are no longer effective against this, your cousin may qualify for treatment with sotrovimab. This will depend on whether underlying conditions increase the risk of severe disease and hospitalization.

Sotrovimab is authorized to treat mild to moderate COVID-19 in patients at high risk of hospitalization and <u>disease progression</u>. These patients might have cancer, <u>cardiovascular disease</u>, diabetes, kidney disease, lung disease or other conditions.

To be treated with sotrovimab, patients must:



- Be at least 12 and weigh 88 pounds.
- Test positive for COVID-19.
- Begin treatment within 10 days of the start of symptoms.
- Not require oxygen supplementation.
- Not be hospitalized for COVID-19.

Sotrovimab is not for use as a preventive treatment before or after a COVID-19 exposure.

Also, the Food and Drug Administration (FDA) issued an emergency use authorization in December 2021 for the monoclonal antibody combination of tixagevimab plus cilgavimab, marketed under the Evusheld brand name. Evusheld is used to prevent COVID-19 infection before exposure in people who are at the highest risk of progressing to severe COVID-19 if they become infected. This may include individuals who are unable to develop immunity from vaccination, such as people who are immunocompromised and those who are allergic to the vaccinations.

Evusheld is authorized for patients who:

- Are 12 and older and weigh at least 88 pounds.
- Have a weakened immune system.
- Are not be expected to respond to COVID-19 vaccination or are not able to be vaccinated for COVID-19 for medical reasons.

Along with the monoclonal antibody therapies, the FDA has granted



emergency use authorization to two oral antiviral pills to treat mild to moderate COVID-19: nirmatrelvir tablets plus ritonavir, which is marketed under the Paxlovid brand name, and molnupiravir for high-risk patients. These oral antiviral drugs must be given within five days of symptoms. In addition, a three-day regimen of remdesivir, an FDA-approved antiviral drug, has been approved to treat outpatients at high risk of hospitalization.

Therapies for COVID-19 continue to evolve. Depending on a patient's clinical condition and their <u>risk factors</u>, they may be eligible for treatment with monoclonal <u>antibodies</u> or antiviral drugs.

That said, the best medicine remains prevention, especially as a number of factors, including supply chain issues, and pauses and inconsistencies in distribution, have contributed to treatment supply shortages. If a loved one is infected with COVID-19, he or she should consult with his or her health care professional to determine the best course of treatment.

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