

HEALTH AND SCIENCE Regeneron antibody 'cocktail' can save lives in hospitalized Covid patients, study finds

- Another potentially life-saving treatment for hospitalized Covid-19 patients has been discovered by researchers at the University of Oxford.
- An antibody combination made by Regeneron reduces the risk of death when given to patients with severe Covid who have not mounted a natural antibody response of their own.
- The study was part of the wider Recovery trial investigating various possible treatments for people hospitalized with coronavirus.

LONDON – Another potentially life-saving treatment for hospitalized Covid-19 patients has been discovered by researchers at the University of Oxford.



The British study – part of the wider Recovery trial investigating various possible treatments for people hospitalized with coronavirus – found that an antibody combination made by [Regeneron](#) reduces the risk of death when given to patients with severe Covid who have not mounted a natural antibody response of their own.

The treatment uses a “cocktail” of two monoclonal antibodies (casirivimab and imdevimab, known as Regen-Cov in the U.S.) that bind specifically to two different sites on the coronavirus spike protein, neutralizing the ability of the virus to infect cells.

Previous studies in nonhospitalized Covid patients have shown that the treatment reduces viral load, shortens the time to the resolution of symptoms, and significantly reduces the risk of hospitalization or death.

But in a small trial in hospitalized patients, preliminary evidence suggested a clinical benefit for patients who had not mounted a natural antibody response of their own (that is, they were seronegative) when they entered the trial.

This latest study is the first trial large enough to determine definitively whether this treatment reduces mortality in patients hospitalized with severe Covid.

The trial, which took place between September and May, involved 9,785 patients hospitalized with Covid.

For patients who were seronegative at the start of the study, the antibody combination significantly reduced their chances of dying by one-fifth compared with those receiving usual care alone (that is, 24% of patients in the antibody combination group died versus 30% of patients in the usual care group).

Thus, for every 100 such patients treated with the antibody combination, there would be six fewer deaths.

As well as reducing the risk of death, for the seronegative patients who received the antibody combination treatment, the duration of hospital stay was four days shorter than for those receiving usual care. The chances of needing a ventilator was also lower.

The treatment had no noticeable beneficial effect on patients who were seropositive at the start of the trial.

The preliminary results from the trial, which will soon be submitted to a leading peer-reviewed medical journal, could determine how Covid patients are treated in future in hospital, one expert noted.

“It means that patients being hospitalised with Covid-19 can be divided into two groups based on whether or not they have made antibodies to the virus,” Fiona Watt, executive chair of the U.K.’s Medical Research Council, said in a statement.

“If they do not have antibodies then treatment with antibody-based drugs to the spike protein can reduce their risk of death and also time spent in hospital. Patients who have made their own antibodies to the virus do not benefit from the new treatment, which is important information given the cost of drugs.”

Peter Horby, professor of emerging infectious diseases in the Nuffield Department of Medicine at the University of Oxford, and the joint chief investigator for the Recovery trial, described the results as “very exciting.”

“The hope was that by giving a combination of antibodies targeting the SARS-CoV-2 virus we would be able to reduce the worst manifestations of Covid-19. There was, however, great uncertainty about the value of antiviral therapies in late-stage Covid-19 disease. It is wonderful to learn that even in advanced Covid-19 disease, targeting the virus can reduce mortality in patients who have failed to mount an antibody response of their own,” he said in a statement.

The Recovery trial has already made several life-saving discoveries, one being that dexamethasone, a cheap and widely used steroid, was able to save lives among severely ill Covid patients. Last week it published the results of another trial that showed [aspirin did not improve the survival rates for patients hospitalized with Covid](#) who are at an increased risk of blood clots.

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<https://www.cnbc.com/2021/06/16/regeneron-antibody-cocktail-can-save-lives-in-hospitalized-covid-patients.html>