The BMJ

Cite this as: *BMJ* 2020;370:m3584
http://dx.doi.org/10.1136/bmj.m3584
Published: 15 September 2020

Covid-19: RECOVERY trial will evaluate "antiviral antibody cocktail"

Elisabeth Mahase

The RECOVERY trial, which discovered that dexamethasone shows benefit in patients seriously ill with covid-19, will investigate the impact of an "antiviral antibody cocktail" specifically designed for covid-19, known as REGN-COV2.

The phase III trial at the University of Oxford has been evaluating different treatment candidates for the virus from early on in the pandemic. Its researchers have now announced that it will assess the effects of adding REGN-COV2 to the usual standard of care, versus standard care alone, on all cause mortality 28 days after randomisation.

The investigation, which will aim to have at least 2000 patients randomly allocated to receive REGN-COV2, will also look at the impact on hospital stay and the need for ventilation.

REGN-COV2 comprises two monoclonal antibodies that bind to the critical receptor binding domain of the virus's spike protein, diminishing the "ability of mutant viruses to escape treatment and [protecting] against spike variants that have arisen in the human population," the announcement said.

Protecting against mutations

This will be the first time RECOVERY has investigated a treatment specifically designed to target the virus, rather than looking at drugs that have been repurposed. Peter Horby, the trial's chief investigator and professor of emerging infectious diseases and global health at the University of Oxford, said that testing promising investigational drugs as they became available was exactly what RECOVERY was designed to do.

Meanwhile, Martin Landray, professor of medicine and epidemiology at the University of Oxford who is working on the trial, said, "There are good reasons to be excited about this new development—RECOVERY will provide a robust assessment of the effect of this lab manufactured, monoclonal antibody combination treatment in hospitalised patients."

REGN-COV2 was selected for the trial after pre-clinical data showed that it could "protect against viral escape mutations, and prevention and treatment studies in non-human primates showing it reduced the amount of virus and associated damage in the lungs."

The treatment is currently being evaluated in two phase II and III trials for the treatment of covid-19 and in a phase III trial for prevention of the virus in household contacts of infected individuals.

The Medical Research Council's executive chair, Fiona Watt, commented, "Monoclonal, or targeted, antibodies are already used to treat cancer and autoimmune diseases. The new trial will tell us whether antibodies that attack the virus can be an effective treatment for covid-19."