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BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

New hope for tocilizumab.

For months now, doctors have been operating with the knowledge that [dexamethasone](#), a frequently used steroid, has been the only true success story in the treatment of covid-19. That insight came from a large study conducted by the RECOVERY research group in the United Kingdom, which showed that dexamethasone decreased mortality for patients requiring oxygen. Now the RECOVERY group has released a new [preprint](#) of a study showing promising outcomes for the monoclonal antibody drug, tocilizumab (*TOE-see-liz-you-mab*). Monoclonal antibodies, or mAbs, are proteins that can be designed to target certain molecules, and in the case of tocilizumab it blocks an inflammatory cascade performed by the body's natural immune system (as opposed to the SARS-CoV-2-specific monoclonal antibodies that have been hyped to [mixed if not disappointing](#) results).

The data in this new study included over 4,000 hospitalized patients who had an oxygen levels of less than 92 percent, or were already required supplemental oxygen, as well as a positive test for a marker of inflammation known as c-reactive protein. The trial participants were then randomized to receive tocilizumab, or standard of care (which included a steroid like dexamethasone for 82 percent of patients).

The crux of the results is that when given tocilizumab, patients had decreased mortality and decreased progression to the need for mechanical ventilation in the following 28 days. The caveat is that the signal effectively disappeared for those patients who received tocilizumab but did not receive steroids. In other words, patients who received tocilizumab and steroids did better than those who received steroids alone (27 versus 33 percent mortality)—but when removing steroids from the comparison, the patients who got tocilizumab actually did *worse* (39 versus 35 percent mortality). However, since most patients get steroids anyway, the overall effect in the study favored the group receiving the monoclonal antibody.

Although previous studies of tocilizumab were [disappointing](#) (after initial enthusiasm from some [retrospective analyses](#), as we covered here in *Brief19*), the RECOVERY trial and another recent trial REMAP-CAP, seem to have found a particular population of covid-19 patients in whom tocilizumab appears to add a benefit on top of steroids alone.

Nevertheless, there are several issues with the RECOVERY trial. Notably, at the time of this analysis, not all patients had completed follow-up. In addition, not all patients who were randomized to receive tocilizumab actually received it. Regardless, enthusiasm for tocilizumab now on the rise again in the wake of this trial. That said, the currently limited supply of the drug and the expense of the medication signal a need for equitable distribution.

—Lauren Westafer, DO MPH

POLICY BRIEFING

Battling for vaccine acceptance via social media.

Well before covid-19, vaccine hesitancy has beleaguered inoculation efforts in the modern era. The pandemic, with all of its innovation and success on the vaccine front, has proven to be no exception.

As early as October, when vaccine efficacy was still theoretical, surveys [showed](#) that rapid approval, among other factors, would give patients pause when it came to getting a shot. *The Journal of the American Medical Association* [explored](#) the possible necessity of a vaccine mandate and such a policy might be received. Early data from the US Centers for Disease Control and Prevention (CDC) [demonstrated](#) that in the initial vaccine rollout in the US, minority groups have not received the vaccine at proportional rates, in part due to access barriers and but also owing to historical [distrust](#) of government health programs stemming from well-documented abuses.

Against this backdrop, and amidst a flood of misinformation online, healthcare providers are [organizing](#) to support evidence and science in order to increase vaccine acceptance across all

demographics. Fighting against personal threats and distorted information, these individuals have coordinated messaging to effectively target traditionally harder-to-reach communities. There have even been strategies [published](#) to counter and recover from “anti-vax” attacks. While social media companies have taken steps to flag, limit, and remove false content, it has largely been these grassroots efforts that have painstakingly started to move the needle on reaching herd immunity. *Various.*

—*Brief19 Policy Team*

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