Editor's Note

COVID-19 Infection—Preventing Clinical Deterioration

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More than 38 million individuals worldwide have been infected with severe acute respiratory syndrome coronavirus 2, the virus causing coronavirus disease 2019 (COVID-19). For primary prevention, traditional public health approaches include wearing masks, physical distancing, contact tracing, and quarantine. These steps are the current standard of care as the world awaits the results of randomized trials of vaccines and monoclonal antibodies. For the treatment of patients with serious illness in the hospital, corticosteroids have emerged as the standard of care.[1,2]

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But what about treatments for patients with COVID-19 who are neither hospitalized nor severely ill? The pilot study by Lenze and colleagues[3] addresses a critically important question during the pandemic of how to prevent individuals who acquire COVID-19 from deteriorating to serious illness.[4] If an effective treatment is found for this key gap in treatment, it will affect the health of millions of people worldwide. This study has important limitations, and the findings should be interpreted as only hypothesis generating; they should not be used as the basis for current treatment decisions. Despite this representing preliminary evidence, there were 2 reasons the editors decided to publish it in *JAMA*.

First, *JAMA* has received more than 10 000 COVID-19 submissions since February 2020, many proposing potential therapeutic approaches and studies describing the outcomes of various treatments for COVID-19, the vast majority of which used an observational design. As such, these reports had important limitations, such as susceptibility to selection bias, immortal time bias, and measurement bias, all of which can affect the magnitude of observed effects as well as the underlying validity of the findings. The World Health Organization, the US Centers for Disease Control and Prevention, and the broader medical community have called for more randomized clinical trials.[5,6] This study by Lenze and colleagues[3] presents only preliminary information, and requires confirmation in larger trials. But at the same time, it is a double-blind, placebo-controlled, randomized clinical trial, which is generally considered a design that minimizes bias and can support causal inference.

Second, the conduct of clinical trials is always difficult, but even more so during a pandemic. The study that Lenze and colleagues[3] conducted is a remote trial, including no direct contact with self-quarantined participants, and has features that the editors believe are worth highlighting. The researchers delivered the study drug, supplies, and oxygen saturation monitoring devices to participants, conducted remote screening, and most often obtained virtual informed consent. They also collected the data via patient self-report and phone interviews. Although these individual components are part of other trials, in the current trial[3] they are combined into a contactless design to protect both participants and researchers during a pandemic.

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