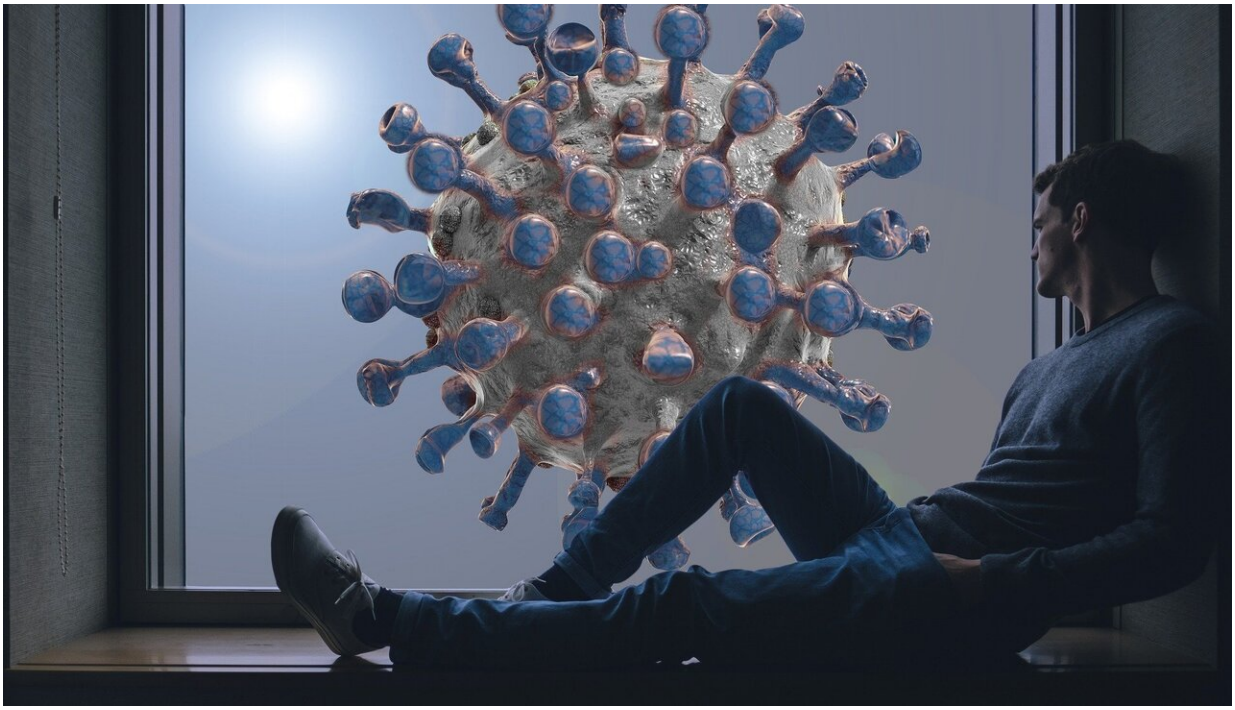
# COVID-19: Physician co-authors analysis of antiviral drug

April 13 2020



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In a small group of patients hospitalized with severe complications of COVID-19 and treated with the experimental antiviral drug remdesivir, clinical improvement was observed in 68% of patients treated, according to an analysis co-authored by Jonathan Grein, MD, director of Hospital Epidemiology at Cedars-Sinai.

The experimental therapy was given to patients through a "compassionate use" program that allows providers access to treatments not yet approved by the Food and Drug Administration when a patient has a life-threatening condition and no other options are available.

The analysis, published online today by The *New England Journal of Medicine*, evaluated data from 53 patients in the U.S, Europe, Canada and Japan who received at least one dose of remdesivir by March 7. The effort was led by Gilead Sciences, the pharmaceutical company that makes the experimental drug.

The study shows:

- 68% of patients treated with remdesivir demonstrated an improvement in the level of oxygen support they needed over a median follow-up of 18 days from the first dose of the drug.
- Of the 34 patients who had been intubated and required support from mechanical ventilators (breathing machines), 57% had their breathing tubes taken out.
- 47% of all patients were discharged from the hospital following treatment with remdesivir

"Currently there is no proven treatment for COVID-19. We cannot draw definitive conclusions from these data, but the observations from this group of hospitalized patients who received remdesivir are hopeful," said Grein, who also leads the Special Pathogens Response Team at Cedars-Sinai. "We look forward to the results of controlled clinical trials to potentially validate these findings."

Cedars-Sinai is continuing to explore remdesivir as a therapeutic option for patients as part of a large international randomized controlled study sponsored by the NIH.

Compassionate use programs are less stringent than a randomized controlled study, which compares patients who are receiving the experimental treatment to patients receiving the standard treatment. However, during the COVID-19 pandemic, compassionate use data can help scientists understand potential risks and can offer a glimpse into whether an experimental treatment might or might not be viable.

"It's critical that the medical community finds a safe and effective treatment for COVID-19 that's supported by solid data," Grein said. "I'm very proud that Cedars-Sinai is contributing to the global effort to find that solution."

**More information:** Jonathan Grein et al, Compassionate Use of Remdesivir for Patients with Severe Covid-19, *New England Journal of Medicine* (2020). DOI: 10.1056/NEJMoa2007016

Provided by Cedars-Sinai Medical Center