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BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

Steroids to the rescue? A major finding announced via press release.

Partial results from one aspect of a large group of covid-19 trials being carried out in the United Kingdom, known collectively as the [Recovery Trial](#), were shared today via press release. The blockbuster finding is that dexamethasone, a commonly used, widely available, and inexpensive steroid, apparently reduced deaths by one third among covid-19 patients on mechanical ventilators. Among patients on mechanical ventilators, eight patients would need to be given the drug to save one life. While that may sound unimpressive, among critical illness medications and other intensive care interventions, that is a unusually large effect size. If the data hold up to scientific scrutiny once published, dexamethasone would become the first drug demonstrated to have a mortality benefit for covid-19. In the trial, the medication was given in doses that is likely to be familiar to physicians who already give the drug for a variety of other conditions (6 milligrams once per day by mouth or intravenously for ten days). One weakness of the study is that it was “open-label” (not blinded), meaning the healthcare teams knew whether or not the patients received the drug. However, a strength of the trial is that it was randomized, so that an appropriate comparison could be made between the fates of those who received the drug and a control group that did not (but otherwise received “usual” care). The steroid also was reported to have improved the survival rates of patients who required oxygen and other respiratory support, but did not have a mortality benefit among those who did not yet have such needs. This suggests that the drug is effective in only the most severe cases, which represent a relatively small but important fraction of covid-19 cases. In the wake of the news, two vocal factions of physicians emerged on social media and in the press. Some felt that the drug should be given to intensive care patients immediately and without delay, even without the benefit of having seen the full data from the trial. Some of these experts argued that dexamethasone is a well-known drug that intensive care physicians already have tremendous experience with, meaning they would have little trouble recognizing some of the expected complications, such high levels of blood glucose. Others felt that without the raw data, no conclusion reliable enough to warrant such action could be made and it would be prudent to wait. For example, the neurologic outcomes of the patients in the study was not reported. If it turns out that most of the patients whose lives were saved have had very poor neurologic outcomes, thus causing unwanted suffering in many cases, the meaning of these data might be different than what many are hoping. Among other questions that have not been answered are why the patients in this trial had such poor outcomes overall. After 28-days, 41 percent of mechanically ventilated patients died, 25 percent of those who required only oxygen died, and 13 percent of those who did not require oxygen died. However, it is highly likely that at some point that patients in the latter group eventually required oxygen or some other form of respiratory support. So, when these designations were made, and why, will have an impact on how these data are eventually interpreted. We also don't know whether the outcomes are different among patients taking other drugs, including remdesivir.

—Jeremy Samuel Faust MD MS

POLICY BRIEFING

The FDA says hydroxychloroquine may reduce remdesivir's effectiveness.

During the course of the covid-19 pandemic, various medications have been considered as possible treatments, from hydroxychloroquine, to donated plasma from recovered patients, to designer drugs that interfere with the immune system's response to infection. A slew of low-quality studies, often picked up by the media as "the next big thing," has led to confusion and uncertainty among healthcare professionals and the public. Currently, remdesivir is the only treatment approved by the Food and Drug Administration (FDA) specifically for the treatment of covid-19, via an emergency use authorization (EUA) issued after a US government-funded study found that some patients recovered faster after taking the drug. An earlier EUA for hydroxychloroquine and chloroquine [was recently revoked by the FDA](#) after several studies suggested no difference in outcomes among those who had taken the drugs and those who had not, as well as the possibility of serious [side effects](#) too great to ignore. Now there are increasing [concerns](#) regarding the effectiveness of remdesivir when given with hydroxychloroquine and chloroquine. The FDA is now recommending that remdesivir not be co-administered with either chloroquine phosphate or hydroxychloroquine sulfate given reported reductions in the effectiveness of remdesivir when coupled with these medications. Given this, the FDA is also now requiring that an updated [fact sheet](#) regarding the safety profile of remdesivir be provided to patients, healthcare providers, and caregivers. In addition, this fact sheet clarifies the dosing recommendations. *Various.*

–Onyeka Otugo, MD MPH

Members of Congress received loans for coronavirus-related relief.

At least [four members of Congress](#) received Small Business Association loans that were part of the initial coronavirus relief package. Hailing from both sides of the aisle, the Representatives each acknowledged that companies to which they have close ties were beneficiaries of some of the billions of dollars distributed by the SBA. The lawmakers who are known to have received money from the program are Rep. Roger Williams (R-TX), Rep. Vicky Hartzler (R-MO), Rep. Susie Lee (D-NV) and Rep. Debbie Mucarsel Powell (D-FL). The chain of restaurants of which Rep. Mucarsel Powell's husband is an executive has since returned the entirety of the \$15 million it received. The loan program was initially part of the CARES Act that was passed in March, the initial coronavirus relief bill to pass through Congress. The law was designed to help small businesses stay afloat including keeping staff employed during impending shutdowns. Both of the Democrats who received loans voted in favor of a later provision that was brought in a separate bill last month which would increase transparency regarding the people and businesses which receive loans through the program. Both Republicans who received loans came out against the provision. It is thought that many more members of Congress or their spouses likely received loans as well. However, so far, no others have come forward. *Politico.*

–Jordan M. Warchol, MD, MPH

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Brief19 is a daily executive summary of covid-19-related medical research, news, and public policy. It was founded and created by frontline emergency medicine physicians with expertise in medical research critique, health policy, and public policy.