

Dexamethasone trial results confirm COVID-19 benefits but also risks

July 17 2020

The keenly-awaited full results from a UK trial of the steroid dexamethasone were published Friday, confirming its life-saving benefits for COVID-19 patients on ventilators but suggesting it may cause harm if given too early.

A total of 2,104 hospitalized patients were assigned to receive six milligram daily doses of the medicine for up to 10 days, and 4,321 to receive usual care, with the rate of deaths compared after 28 days.

Among patients on ventilators, the rate of death for patients on the drug was 29.3 percent compared to 41.4 percent on those without.

In other words, this group saw a 29 percent reduction in mortality, just under a third.

In patients who were given oxygen but through less invasive means, the benefit was smaller—23.3 percent on [dexamethasone](#) died versus 26.2 who were not on it.

However, there was no benefit among the group who weren't receiving any oxygenation at the time the trial started.

In this cohort, 17.4 percent on the steroid died compared to 14 percent who did not receive it—suggesting the drug increased their mortality risk.

This is because the drug works by suppressing the abnormal immune response that damages the body's organs, rather than attacking the virus.

Speaking to AFP in June, leading US scientist Anthony Fauci cautioned that dexamethasone should not be prescribed too soon after a person was infected.

"It had no effect, if not maybe even a suggestion of making things worse early on," he said.

"This is perfectly compatible with knowing that early on in infection, you need the [immune system](#) to suppress the virus."

The authors of the paper, which appeared in the *New England Journal of Medicine*, added that getting benefit from the drug "is dependent on a selection of the right dose, at the right time, in the right patient."

They added that, as far as the COVID-19 illness is concerned, for patients who require oxygen, the [abnormal immune response](#) seems more responsible for harm than the replication of the virus in the body.

But they cautioned that this hypothesis should not be applied to other viral respiratory illnesses, like SARS, MERS and influenza, without further study as they may have different impacts.

Dexamethasone was adopted into UK practice on June 16, the day when the initial results were announced, and is also recommended by the US National Institutes of Health.

On its website, the NIH cautions that it isn't yet known how well dexamethasone might work in combination with the anti-viral drug remdesivir, which has proven beneficial when used alone.

It adds that patients on the [drug](#) should be closely monitored for secondary infections and high blood sugar.

It is also known that use of corticosteroids can also re-activate previous infections that were lying dormant, like the hepatitis B [virus](#) or tuberculosis.

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