

What's latest on COVID-19 clinical research? JAMA editor offers insight

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Three months into the pandemic, there is more high-quality research on potential COVID-19 treatments; but when it comes to vaccines, there is less being written in the scientific literature than in the popular press.

Those are the observations that Howard Bauchner, MD, made during a recent AMA COVID-19 daily video update. Dr. Bauchner is editor-in-chief of *JAMA*[®] and senior vice president of AMA scientific publications and multimedia applications.

“There has been some emerging themes around treatment, which is we may be giving it to patients who are too sick, and instead of giving it to people who are critically ill ... that's one issue,” Dr. Bauchner said. “The second is that it may take a combination of drugs to really reduce mortality. So not just an antiviral, but an anti-inflammatory and an antiviral. ... There's a number of evolving issues, and it's going to take many more months of research until we can sort out some of those questions.”

You can stay up to speed on the fast-moving pandemic with the AMA's COVID-19 resource center, which offers a library of the most up-to-date resources from JAMA Network, the Centers for Disease Control and Prevention, and the World Health Organization.

Where research offers some clarity

Dr. Bauchner told viewers that when it comes to treating COVID-19, a number of issues have become clearer through research.

For example, the **antiviral agent remdesivir** has some benefit. But he said he believes people were hoping for an even greater benefit.

“The number needed to treat around mortality benefit of 3–4% is around 30, which is high. Shortened

length of stay, a little better, four or five days of 15 days,” he said during the interview in late May. “But to put that into perspective, there’s about 100,000 deaths now recorded in the U.S., so a mortality benefit of this drug had it been given to everyone, and it worked as well as in everyone as it did in the clinical trial, would bring the 100,000 down to 97,000–96,000. That’s wonderful, but we have a long way to go.”

Observational studies published in *JAMA* and other leading medical journals suggest **chloroquines** do not show any benefits in treating patients. But Dr. Bauchner said the answer to whether chloroquines have preventive benefits is still uncertain.

“There’s still legitimate scientific questions about whether or not it could be effective,” Dr. Bauchner said. “But I think outside of a randomized clinical trial, the general intensive care unit community is moving away from using it.”

Dr. Bauchner noted that scientists continue to study many other drugs that block the inflammatory cascade. “There’s a great deal of interest” in that drug class, he said.

Convalescent plasma, something with a 100-year history, has also been used to treat nearly 15,000 COVID-19 patients. However, Dr. Bauchner said, clinical trial data isn’t available yet.

Much more work before a vaccine

While there have been many vaccine reports in the popular press, there have been fewer in the scientific literature, Dr. Bauchner said.

“That’s of some concern for people,” he said. “Scientists really want to see the data. They don’t want the summary report.”

He said it will be important to see data from phase 1 and phase 2 trials in the coming months. And, he said, we should expect to see ethical questions emerge as well. For example, are healthy human challenges a reasonable approach when you could potentially infect someone who could get seriously ill when there is no cure?

There is also a question of whether giving a vaccine to healthy, younger people would help scientists understand whether the vaccine will be effective in those who really need it, such as those who are older or have an underlying medical condition.

As for timing of a COVID-19 vaccine, Dr. Bauchner said he is “not optimistic that we’ll have a vaccine available for the fall. I could be wrong. It would be wonderful if I was wrong, but I would not be optimistic.”



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Learn more about Dr. Bauchner in this *AMA Moving Medicine Magazine* profile, “Digital designs for the age of evidence.”