Howard Bauchner, MD, with a look at COVID-19 research and potential treatments

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Featured topic and speakers

AMA Chief Experience Officer Todd Unger speaks with *JAMA* Scientific Publications Editor-in-chief Howard Bauchner, MD, on updates regarding COVID-19 including the latest research on COVID-19, including potential treatments.

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Transcript

**Unger:** Hello. This is the American Medical Association's COVID-19 update. Today we’re discussing the latest research on COVID-19. I'm joined today by Dr. Howard Bauchner, editor-in-chief of *JAMA®* in Chicago. He's asked me to address him as Howard today. I'm Todd Unger, AMA's chief experience officer in Chicago. Howard, can you tell us a little bit about what you've learned from the research about treatments for COVID-19?

**Dr. Bauchner:** Well first, hi. Thanks for having me, and I want to congratulate you and the AMA on the celebration you had for graduating medical students. It was really a wonderful hour. I watched all of it, and I just really want to congratulate you and the AMA. It was a really nice thing to do. It's a wonderful day for graduating seniors.

**Unger:** Thank you.

**Dr. Bauchner:** So we’re three months in now to more and more high-quality research. And I think a number of issues have become clearer. So there’s been a few studies around Remdesivir, the antiviral agent. There's some benefit. I think people were hoping for a greater benefit. The number
needed to treat around mortality benefit of three, four percent is around 30, which is high. Shortened length of stay, a little better, four or five days of 15 days. But to put that into perspective, there’s about a 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.

Chloroquine had been the other drug that's received a lot of attention, and there’s now been a number of observational studies published JAMA®, the other leading journals, to suggest in observational studies that there is no benefit for treatment. A question about prevention is still uncertain. And I think the community is moving away from giving chloroquine outside of a randomized clinical trial. I think within a randomized clinical trial where there's control of the dose, side effects, I think there's still legitimate scientific questions about whether or not it could be effective. But I think outside of a randomized clinical trial, the general intensive care unit community is moving away from using it. Many other drugs still being studied, which blocks the inflammatory cascade. There's a great deal of interest in that drug and that class of drugs.

Convalescent plasma, my understanding is almost 15,000 people in the U.S. had been treated with convalescent plasma. It has a hundred year history. No data from clinical trials yet available. So I still think there’s quite a bit to learn about treatment. 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, give it to people who are seriously ill. That's one issue. And 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. And so I think 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.

Unger: Excellent. Let's turn the topic to vaccines. Obviously, early, aggressive push toward developing a vaccine. What are you learning to date?

Dr. Bauchner: Well, many continue to be under investigation. Numerous reports in the popular press, much less in the scientific literature. I think that's of some concern for people. Scientists really want to see the data. They just don't want the summary report. So I think that will be important in the upcoming months to actually see the data from the phase one, phase two trials. The biggest question at the moment has been whether or not healthy human challenges is a reasonable approach. And what do I mean by that? You would take a group of people who are relatively healthy, likely not to have serious consequences, give them the vaccine, and then challenge them with the virus. This is a hugely controversial approach. Ethics committees would need to weigh in. And this may become more difficult to imagine accomplishing in part because there's no cure or effective treatment.

So you could potentially infect someone who could get serious disease, but nevertheless, you then wouldn't have a cure for it. So I think ethics committees are really going to struggle with approving that approach. The other thing is, if you give it to individuals say 20 to 40 who are healthy, would that
data help you to understand whether or not the vaccine is going to be effective in a group who we know really need it? And there's a great deal of uncertainty about that. So that's the current evolving issue in vaccines. Still an interest in trying to do it more quickly. But I think Dr. Fauci, Tony, said in the early winter months, when I did my first interviews with him, 12 to 18 months before he thought we'd see large scale phase three trials. And I suspect he was right. So I'm not optimistic that we'll have a vaccine available for the fall. I could be wrong. It'd be wonderful if I was wrong, but I would not be optimistic.

**Unger:** Well, let's talk a little bit about the fall as we head into that and anticipate possible surges. What have we learned about who needs to be protected and how?

**Dr. Bauchner:** Well now there's much more important information that's become available. So from early studies that were largely published from China, but then we published from Italy and New York, certain things haven't changed. There's high risk groups. And we know who those high risk groups are. Older individuals, older than 60 or 65, particularly if they have co-morbid conditions, obesity or hypertension. That raises the risk of serious disease and mortality. And in the US and in other countries, a third to half of the individuals who subsequently die have come from nursing homes. So it is clearer who the high risk individuals are. Older individuals and particularly those with other medical conditions and particularly those from nursing homes. Also not surprising to people who've studied health equity and health disparities, the number of individuals who have died in communities of color, particularly African Americans, has been larger than the percent of those individuals in the overall population, so again, another high risk group.

**Unger:** You've had some incredible conversations with leaders and health care across the world, leading physicians like Dr. Fauci. Can you tell us a little bit about some of the folks you will be seeing and talking to over the next few weeks?

**Dr. Bauchner:** Yeah, you've turned the table on me, Todd. I kind of like that. You're interviewing me. So you've turned the table. It really is fun to do the live streams. So on Monday, Paul Offit, who really is a prominent vaccinologist, Children's Hospital of Philadelphia pediatrician, he and I are going to be talking about vaccines for about a half hour, 35 minutes. Dr. Fauci's scheduled for Tuesday. Sometimes he gets called away to the White House, but he is scheduled for Tuesday.
And then on Wednesday, we’re going to both publish a viewpoint as well as I’m going to have a long with Josh Sharfstein. Josh is on our editorial board, JAMA® editorial board. He was commissioner of Public Health for the city of Baltimore, then went to the FDA as deputy director and now is back at Johns Hopkins in the School of Public Health. He and the superintendent of schools from Baltimore, we’re going to talk about the really important issue about opening up schools in the fall. They estimate in the viewpoint, that will be published next week, that about 55 million children have missed school for the last three or four months. That has huge, just huge consequences. And the viewpoint really focuses on how we potentially can open up the schools in the fall.

**Unger:** One of the most memorable interviews I recall is from the front lines in Italy, and I believe you have a returning guest.

**Dr. Bauchner:** Oh, Todd. Yes. You have a good memory. Maurizio Cecconi. That podcast has been viewed almost a million times. And I think it galvanized the world because it came from someone, Maurizio is president-elect of European Society of Critical Care Medicine and is really well-respected. And I remember to this day, because he was kind of in his blue garbs, and he just talked with so much controlled emotion about what was happening in Italy in the Lombardi area. So he and Derek Angus are going to join me the following week. And we’re going to go through a lot of evolving issues in critical care medicine. Drug therapy, the best way to ventilate patients, a lot of complicated issues about coagulopathy, and both Derek and Maurizio see patients, and so that will be a really important report from the front lines.

**Unger:** Howard, it is always a pleasure to talk to you and fascinating to hear your perspectives. Thank you for being with us here today. We'll be returning with another COVID-19 update tomorrow. In the meantime, for resources on COVID-19, visit ama-assn.org/COVID-19. Thanks for being with us here today and take care.

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