Watch the AMA's daily COVID-19 update, with insights from AMA leaders and experts about the pandemic.

**Featured topic and speakers**

In today's COVID-19 update, *JAMA*’s editor-in-chief also discusses the latest trends and research on COVID-19 and ties between the virus and smoking.

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**Speakers**

- Howard Bauchner, MD, editor-in-chief, *JAMA* scientific publications

**Transcript**

**Unger:** Hello, this is the American Medical Association’s COVID-19 update today. We’re discussing the latest trends and research on COVID-19 with Dr. Howard Bauchner from his unique vantage point as editor-in-chief of *JAMA* and the JAMA Network in Chicago. Dr. Bauchner prefers that I address him as Howard. I’m Todd Unger, AMA’s chief experience officer in Chicago.

Howard, we talked to one of your frequent visitors on your podcast, Dr. Offit yesterday about variants. And we’re eager to talk to you more about the research. What are we finding out about transmission, severity of the disease with these different variants and what are we looking for in the research to still learn?

**Dr. Bauchner:** So thanks for inviting me again, Todd, I always enjoy these. So let’s start with good news. There’s not been much around and I think there is some reasonably substantially better news than there has been in the past. So first, for reasons that are somewhat unclear, the number of
people hospitalized with COVID-19, assuming the database is accurate, has declined dramatically over the last now four or five weeks from about 130,000 to just above 90,000. That's just really important news. It's much easier to, to provide really high quality care when you're not overwhelmed, when health care systems are not overwhelmed.

So even a month ago, we were hearing about this tremendous concern about bed availability, for example, in California. That's gone away. No one is entirely sure, because the concern was that there'd be an increase in admissions following travel over Christmas, similar to what had occurred over Thanksgiving. A couple of things may have happened. The first is that travel over the Christmas holidays are spread out. It's not as concentrated as over Thanksgiving. And then it's quite possible that more people are taking more important safeguards, distancing, social distancing and then of course masking.

The other is, based upon the Bloomberg tote board, we're at 33 million doses of vaccine given. That does not mean that 33 million people have been vaccinated, because some of those are people who've gotten two doses. Clearly, over the last few weeks, there's been a focus, at the state level, to begin to vaccinate people who are older than 65. The reason that is so important is 80% of the deaths, according to the CDC are in people older than 65. There's 55 million people who are older than 65 in the United States. If we continue to vaccinate about 1.3, 1.5 million people each day, or provide 1.3 to 1.5 vaccinations, obviously the number of vaccinated will be the same, although they won't have two vaccines. It's February, by the end of March, it's possible that we will have vaccinated essentially the entire cohort of people older than 65 who want to be vaccinated.

That is incredibly important news. I think it portends a dramatic decline in the number of deaths in the United States beginning sometime in April. And there's preliminary data from Israel that's saying that they're beginning to see a very substantial decline in disease as more and more of the population gets vaccinated.

**Unger:** That's very hopeful news, Howard. Is there any concern that, while this is going on, we're starting to see stories about the variants popping up, that we could see another surge because of that?

**Dr. Bauchner:** So, the variance is a slightly different story, and it will play out over the next many months. And I know you had mentioned, you had interviewed Paul yesterday. He wrote something for us last week about variance as did Adam Lauring. And so here, the data are just evolving. And so what happens, not unexpectedly as you have a virus, it's in the community and it kind of changes some aspects of the virus. Just like flu, we know that each year we have to make a vaccine that's very specific for what we think is going to be the major components of the flu virus for that year. So we get updated each year. Each year, we get our flu vaccine.

What's happening, something similar is happening, is that the viruses migrating, changing a little bit, there's a variant being developed. And then each time that happens, we have to figure out whether or
not the vaccines at the moment, largely in the United States, just Moderna and Pfizer, remain effective against that variant. And the reports have been variable. So some good news around Moderna and the U.K. variant, less good news about, I believe both Moderna and Pfizer and the South African variant. It is taking more time to understand whether or not these vaccines are effective against the variant.

And I'm assuming Paul mentioned it yesterday, and certainly in our viewpoint, he thinks there needs to be a central repository. Perhaps the CDC, that collects serum from people who've been vaccinated, the variants are sent to the CDC and they can quickly evaluate whether or not the current vaccines remain effective against those variants. Now there was a press release. The good news is, and this is part of the conversation. We know these vaccines are effective against disease. We're not sure if they're effective against transmissibility. So you and I are 95% effective against serious disease and dying, but we could still transmit it. Well, apparently there was a report this morning that one of the vaccines appears to be very effective against transmission, and it would be likely that the other ones would also be effective against transmission.

Unger: Wow. That is great news. And obviously an unanswered question where that data really makes a lot of a difference. I'm going to just turn this to another hot topic, the subject of schools. JAMA recently published a very widely circulated viewpoint about what schools can do to reopen safely and limit the spread of infection. Can you tell us more about that? How do you feel about this issue from your perspective as a pediatrician?

Dr. Bauchner: Yeah, well, I am a pediatrician and one of my sons is a teacher. So this obviously has a lot of personal meaning for me. And we followed the school data for a long time, both in JAMA, JAMA Pediatrics, JAMA Network Open. What we published was a summary of the data from the CDC. And in some regards, those are really important things to read, because they put out a lot of high quality data in the MMWR, but not everyone reads it. So this was a summary of the data. And essentially it said that there's been very, very few outbreaks that are attributable to schools reopening. And that is really confirming an important data for schools that are continuing to try to seek a way to open so that education is live again.

Obviously, it can create conflict with teachers and that's what is being negotiated around the country. Certainly in Chicago, we know that there's been tension between the Chicago Teachers Union and the City of Chicago, and they're trying to resolve it. But the good news is that there's not substantial evidence, that opening schools is going to increase spread of disease. Now, if you're a high risk teacher, you still want to be protected. And I think that is some of the tension. So as vaccines roll out and people older than 65 get vaccinated, or essential workers, and schools are part of those essential workers, then teachers would be protected. And then I think it will become increasingly safe to open schools.

Unger: Okay, well, we've talked a lot about vaccines, but one thing that's seems to not be on the
radar screen as much are treatments. Are we seeing progress in these areas at all? Are we able to treat severe COVID any better now than a few months ago?

**Dr. Bauchner:** Well, here are the stories evolving. There's been a few press reports and people haven't seen all the data and also *JAMA*'s obviously reviewing a number of manuscripts. So I want to be careful about my remarks. We know unequivocally that corticosteroids for the seriously ill individual has become standard of care. That is quite true. There has been other studies that people are trying to evaluate. There's an inflammatory response for some patients when they get serious disease. Can you block that inflammatory response? Those studies are just coming to fruition. There's been some disagreement about what the data say. And I think we may not get a definitive answer about blocking this inflammatory cascade, or who to block it in.

The other is that there's been coagulopathy abnormality. So people have ended up with more pulmonary embolisms, for example. And so there's been a question about whether or not you should anticoagulate patients. And again, the same question is going to be asked, are we wise enough to know who to anticoagulate and who not to anticoagulate? I think what's really become clear, is even amongst the group of people who are seriously ill, there's different manifestations of the disease. And so it may make it very difficult, beyond steroids, to know what drug is appropriate.

Prevention is a different story. And there, I think we will begin to see the emergence of data from the monoclonal antibody studies. We've published one, there's been others published. But there've been phase one and phase two studies, and people have wanted to see larger data and see if it really prevents hospitalizations or death. I am guardedly optimistic that those will be very significant studies that will suggest that monoclonal antibodies really have a role to play in the mild to moderately ill individual to prevent them from going on to get serious disease.

**Unger:** That is great news as well. Well, I want to follow up on a webinar that we had recently with Dr. Peter Marks from the FDA. He touched on this topic, but I want to get your thoughts from research perspective. What have we seen in terms of adverse effects from the authorized vaccines?

**Dr. Bauchner:** Well, we did publish a report again from the CDC about allergic reactions to one of the vaccines, and it was remarkably rare. It's one in many million. So I think that's been enormously, enormously reassuring. The data now on both vaccines, again, it's extraordinarily rare. And I think in terms of immediate allergic reaction, it is exactly what we would have expected, a rare event. Not something people should be overwhelmingly concerned about.
Obviously, long-term safety data, it comes up in every discussion I have. We are generally quite reassured by all the data that we’ve seen, that for people who were vaccinated three, four and five months ago, they have no untold side effects from the vaccine. So I think as of February 2nd, the allergic reactions were expected. They're not greater than we expected. They've been handled effectively. And in addition, there's no new data about long-term potential side effects or complications of the vaccines that would make us concerned.

Unger: Okay. That's good news too. Last question for you is about the evolution of research on COVID. Most recently JAMA published a study about the association of smoking with COVID outcomes. Can you talk about this and any other research in the pipeline that would be helpful for physicians to know?

Dr. Bauchner: Yes. Smoking has been an interesting story. So early on, there were some reports that it was protective against getting serious disease. That doesn't make much sense. Smoking is not good for anyone, so that it would be protective, seemed very, very odd. And I think smoking, like obesity and diabetes, has added to the long list of medical conditions that complicate and add to the likelihood of individuals developing serious disease. And the U.S. does well with smoking, actually better than many of the OECD countries, but we can still go further. The U.S. Preventive Services Task Force has a couple of new recommendations, major changes and recommendations coming about who should be screened if they have a history of smoking, and JAMA will publish those new recommendations in two weeks.

Unger: Excellent. We'll look forward to that. Well, thank you so much, Howard, for being here today. I always learn so much, and exciting to see the news coming out of the JAMA research. That's it for today's COVID-19 update. We'll be back soon with another segment. For resources on COVID-19 visit ama-assn.org/covid-19. Thanks for joining us. Please take care.

Dr. Bauchner: Thanks, Todd. Everyone, stay healthy.

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