Peter Hotez, MD, talks improving patient confidence in vaccines

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, AMA Chief Experience Officer Todd Unger speaks with Peter Hotez, MD, PhD, dean of the National School of Tropical Medicine at Baylor College of Medicine and co-director of the Texas Children's Hospital Center for Vaccine Development, about the uphill battle for science first in vaccine development, and how to improve patient confidence in the COVID-19 vaccine.

Learn more at the AMA COVID-19 resource center.

Speakers

- Peter Hotez, MD, PhD, dean, National School of Tropical Medicine, Baylor College of Medicine and co-director, Texas Children's Hospital Center for Vaccine Development

Transcript

Unger: Hello, this is the American Medical Association's COVID-19 Update. Today, we're talking with Dr. Peter Hotez about how we prioritize science and vaccine development and other COVID-related issues in the months ahead. Dr. Hotez is the dean of the National School of Tropical Medicine at Baylor College of Medicine and co-director of the Texas Children's Hospital Center for Vaccine Development in Houston, Texas. I'm Todd Unger, AMA's chief experience officer in Chicago. Dr. Hotez, it's been about four months since we last spoke, and a lot's happened since then. One thing that hasn't changed though, is that we continue this uphill battle to put science first, particularly around vaccine development. Can you talk about what's happening from your vantage point, and have we seen anything like this before?
Dr. Hotez: Well, we've seen this very mixed picture. In terms of the science, I think the science overall is going well. We're scaling up production of our low-cost global health COVID-19 vaccine in India, preparing now with Biological E to produce a billion doses. And that's exciting. We've never made a billion of anything before. And Operation WARP Speed, I think, overall, is going pretty well in terms of the scientific rigor of the clinical trials and the integrity of the clinical trials. But, it's being surrounded by a lot of poor communications or in some cases outright disinformation. So, the way Operation Warp Speed has worked is it's not really had a communication plan, which I think is a mistake because there's been that strategic decision to leave the communications to the pharma CEOs and I think it's been a very mixed bag in terms of how that's going.

In some cases, the pharma CEO's have not really been very attentive to how the public perceives vaccines, sort of tone-deaf to the fact that we have a pretty aggressive anti-vaccine movement out there. And so when you have things like pauses that weren't previously revealed to the public or all of the stock trading that goes along and tends to undermine confidence. So my worry is--I mean, the good news is the science is proceeding well, and I have pretty good confidence in how the FDA is working and ensuring adequate scientific rigor and integrity of the clinical trials, but the communications is not going well.

Unger: It's interesting, just in so many places, lots of focus on product and not a lot on communications. And that is a problem, especially, we have a fear of vaccines. And it's something you've addressed for many years in the pandemic or prior to the pandemic. In the environment that we're in now, what needs to happen to increase vaccine confidence so that we, when we have a vaccine, people will actually agree to get it?

Dr. Hotez: And right now, I think as of today, there's a new survey coming along showing that about 40% of Americans will refuse COVID-19 vaccines even if they're made available. And I think there's a multidimensional approach to this. First of all, I do think it's going to be really important that Operation Warp Speed implement a communications plan. And it's not only around vaccine confidence but remember, there's an enormous amount of information that's going to have to be conveyed. There's many different vaccines, some will protect better than others, some will be partially protective. Some will be completely protective against the virus. In some cases, we'll need to continue masks and social distancing. In some cases, the durability of protection may not be very, the protection may not last very long, in which case people will need to get boosted. Do you get boosted with the same vaccine or a different vaccine? All those things we're talking about, none of that is being messaged to the American people.

The other thing I've been trying to stress is the fact that, I get asked all the time, "Hey, Dr. Hotez, which vaccine are you going to take?" And what I say is, "I'm not going to answer that question because it's the wrong question to ask." It's really what vaccine will be made available early on. I'm 62-years-old. I'm really worried about going through this winter without having virus-neutralizing
antibodies onboard through vaccination. So what I'm saying is, "Look, take whatever vaccine you can get in order to get virus-neutralizing antibody in your system." Later, you can worry about being boosted either with the same vaccine or a different vaccine, but this is not a time to hold off on getting vaccinated. Again, none of that is being messaged. So that's problem number one.

Problem number two is the fact that we do have this very aggressive anti-vaccine disinformation campaign out there. They're dominating the internet, 480 fake anti-vaccine websites. Many of the e-commerce sites are actively promoting anti-vaccine material. The one place that I tend to depart from a lot of my colleagues, I think most of my colleagues are all-in about amplifying the pro-vaccine message, where I tend to be a little bit alone on or not entirely, but partly alone is I believe it's really important to actually take down the anti-vaccine disinformation. This has evolved into a disinformation empire, and it's doing a lot of damage. And actually taking it down will do a lot because I think just focusing on the message, I point out, it's a message in a bottle in the middle of the Atlantic Ocean given that it's swamped by all of the fake anti-vaccine messages and this fake health freedom movement and everything else. And we're going to need to take that down.

**Unger:** What's that mean, take that down?

**Dr. Hotez:** Well, I know, I think it's going to mean taking some of the lead anti-vaccine organizations, getting them off Facebook and Twitter, and on other forms of social media. I think that's going to be really important. And I think that would be a real—and I thought we were going to reach that point after measles returned to the US last year and the Senate Health Committee and the House Oversight Subcommittee held hearings, but they kind of dropped the ball on that and so that never really happened. So taking down the fake anti-vaccine information off the internet from the major organizations, looking at these political action committees. Now they're in multiple states that are raising money and lobbying the legislature to make it harder and harder to vaccinate our kids. That's got to stop as well.

And the problem is no one really has the appetite for that. The federal government, so far, has not seen that as their fight. And also, the fact that a lot of these anti-vaccine activities have aligned themselves with political movements and especially some of the extremists, far right-wing elements. The irony is that's actually insulated them because non-profits by their 501(c)(3) status say they can't be engaged in political activities, and therefore, they don't address it.

So, we've got a lot of work to do and the stakes are high because the other thing that's happening now is we're starting to see number one, that was an anti-vaccine movement now under this fake banner of health freedom has become a full-blown anti-science movement. And they not only campaign against vaccines but also now against masks and contact tracing and social distancing, all the things we need to do to fight COVID-19, especially now that we're entering into our worst period where the number of cases is really accelerating. We're going to be up and over 70,000 new cases a day, and the projections are that deaths are going to double. And we have now what's a full-on anti-
science movement telling the American people don't wear masks, forget about that social distancing and contact tracing. This is going to be deadly.

And then we have now the export of the anti-vaccine movement into Europe. There has been rallies in Trafalgar Square in London, and Paris, in Berlin in Germany, where the leaders of the anti-vaccine movement are the featured speakers, and it's co-sponsored by QAnon, and the CBS News is reporting, even one of the Neo-Nazi parties in Germany. So this has taken a very sort of dark and ominous turn. And I think we have to intervene before this really gets out of hand, and it may already be out of hand. And I think there's a good chance it already is.

**Unger:** Is there anything that you see physicians being able to do in the face of movements like this?

**Dr. Hotez:** Well, certainly, situational awareness and get educated as to what's happening. Because remember, your patients are coming in loaded for bear in many cases. They don't mean to be on the side of anti-science, but they're so inundated with misinformation that that's all they're hearing. So I think it's really important that physicians get educated about what the bad guys are saying about science and medicine and health and vaccines.

I think the other piece, and Mike, we've talked about this before, is we're going to need to start training a new generation of physicians in how to do public engagement, how to talk to the public. In the past, we haven't done that. When I was being trained, getting my MD and PhD, the message was you don't engage the public directly. You don't talk to journalists. That was seen as a form of grandstanding or self-promotion. And all those ideas are antiquated and were built in place, put in place before something called the internet came along and social media, and the world has changed. And this is why I'm so eager to do podcasts with the AMA. And I'm really glad the AMA is out in front on this issue because it's a huge threat to the health of the American people.

**Unger:** Yeah, the rules have really changed there, and it's obviously not something you're taught in medical school or even that you need to do. And that's part of why we have updates like this, is to provide a platform.
Dr. Hotez: Yeah, and it's not even in the culture of academic health centers. Most offices of communications in academic health centers and medical schools--ours is really good and I've had a great time working with out at Baylor and Texas Children's--but the rule outside of that is they're very risk-averse. They're all about protecting the reputation of the institution, and the idea that their docs are going to be out there talking about controversial issues or campaigning for social justice, that doesn't fit with that narrative. And so not only do they not encourage it, in many cases, they discouraged it. And certainly, there's no place on your annual evaluation form for the number of interviews that you've done or how active you are on social media or Twitter. That's just not in the DNA of our profession and certainly not of academic health centers. And I think now's the time when we've seen what disinformation really can do, and help lead to the deaths of 215,000 Americans by the time we're doing this interview. I think we have to revisit all of these things.

Unger: Well, looking toward the next few months without a vaccine, you've been quoted in the media as predicting that these months are potentially the worst part of the pandemic. Why do you think this is the case, and what can we do to brace ourselves?

Dr. Hotez: I'm glad you brought up the first part because I'm trying to strike a balanced message here that things will get better. We'll be in a much better position by this time next year. Vaccines will be available. And by a year from now, it may not be completely normal, but our quality of life will be so much better than it is now. But we still have to get through this very terrible time when COVID cases are rapidly increasing. And the projections from the Institute of Health Metrics are we're going to hit potentially 400,000 deaths the week after the inauguration, a doubling. So this is a dark period, a dark chapter in the life of our country. And unfortunately, we've got a situation where it was a public health crisis will morph into a full-blown homeland security issue if those projections are correct.

So I think we have to get ready and really take steps to protect mental health as well. And this is going to be also an important role for physicians. Get ready for your patients talking to you in a very distressed way and have a low threshold for making those referrals to mental health professionals and getting them mental health counseling. And I'm advising my family and others to have a number ready in case you need mental health counseling. It's going to be a scary, terrible time. People will be upset. We'll have a lot of people getting depressed. Knowing that is really helpful so we can get ready.

Unger: Well, you have a new book out called Preventing the Next Pandemic: Vaccine Diplomacy in a Time of Anti-science." What have we learned and what can we do to prevent something like this from happening again?

Dr. Hotez: Well, what we've learned is that all that great progress that we made in our global health goals, through the millennium development goals, the sustainable development goals, in the launch of the Gates Foundation and the Gavi Alliance over the last 20 years has had great successes, but things are unraveling a bit and they were even unraveling before COVID. So I actually wrote the book sort of pre-COVID because we were starting to see an unraveling due to the rise in anti-science, but
also things like war, and political collapse, and climate change, and urbanization, which have really accelerated. And now, of course, COVID-19 is sort of the culminating event of all this. And one of the messages of the book is all the things I just mentioned to you, war, political collapse, anti-science, climate change, guess what, our medical students, our residents, our fellows are not getting training in any of those things. So again, this is a call to rethink how we’re training physicians and physician-scientists to look at that bigger picture because it’s now having a huge and detrimental effect on our ability to treat patients and prevent disease through vaccines.

Unger: Well, thank you so much for your continued work to fight this kind of disinformation and make sure that we keep the focus on science. We’ll be back soon with another COVID-19 update. I want to thank Dr. Hotez for being here today and sharing his perspective. For resources on COVID-19, visit ama-assn.org/COVID-19. Thanks for joining us. Please take care.

Disclaimer: The viewpoints expressed in this video are those of the participants and/or do not necessarily reflect the views and policies of the AMA.