

Mayo Clinic Q & A - Dr. Gregory Poland - YouTube Audio - 3 2...





 Tue, 3/30 9:49AM  25:40

SUMMARY KEYWORDS

vaccine, people, greg, happening, vaccinated, doses, mayo clinic, variants, itp, virus, clot, population, cases, pandemic, herd immunity, antibody, hear, expect, week, reminder

SPEAKERS

Dr. Halena Gazelka, Dr. Gregory Poland, Narrator

-
-  **Narrator** 00:01
Coming up on Mayo Clinic Q&A:
-  **Dr. Gregory Poland** 00:04
The good news is that we are now up to an average of two and a half million doses a day. I expect in this April/May timeframe any adult that wants to get a vaccine will be able to get a vaccine in the US.
-  **Narrator** 00:20
Even as more people are getting immunized for COVID-19. There are still some who are skeptical of the vaccines, primarily due to misinformation from non-credible sources.
-  **Dr. Gregory Poland** 00:30
Go to medical centers, go to the CDC, go to the Infectious Disease Society of America and look for credible information because you're making a decision that affects not only your life and well-being, but that of your family and friends and co-workers.

- D** Dr. Halena Gazelka 00:48
Welcome everyone to Mayo Clinic Q&A. I'm Dr. Halena, Gazelka. We're recording this podcast on Monday, March the 29th, 2021. COVID-19 vaccine eligibility has increased dramatically across the country. Many states are now allowing those 16 and older to receive the vaccine. Will the supply keep up with the demand? Well, here to discuss is our COVID-19 expert, Dr. Gregory Poland, virologist, vaccine expert, and infectious disease specialist at Mayo Clinic. Thanks for being here, Greg.
- D** Dr. Gregory Poland 01:19
Good morning, everybody.
- D** Dr. Halena Gazelka 01:21
Yes, Happy Monday again. I think tomorrow, even Minnesota is going to be opening up to vaccinate those who are 16 and older.
- D** Dr. Gregory Poland 01:29
Yeah, that's right. Actually, I think eight or nine states will be doing so, followed shortly thereafter, by at least the count on Friday 34 states that plan on opening it up to everybody 16 or 18, depending on which vaccine, and older, and this is critical to do. I'm very happy to hear this.
- D** Dr. Halena Gazelka 01:51
I'm so excited too because I have so many co-workers and you know, family members, friends who have not been eligible to be vaccinated because they are healthy adults know, and our healthcare workers, or you didn't fall into one of the categories yet. So, it's very exciting.
- D** Dr. Gregory Poland 02:07
Yeah, I mean, think of what's happened in families, you know, grandparents that may or may not have been able to get the vaccine, their adult kids and their grandkids. So, this is a wonderful thing. And they're very rapidly moving in the studies to below age 12 now. So, I'm wonderful that this summer, early fall, we'll be able to give vaccine to kids too.

- D** Dr. Halena Gazelka 02:33
Oh, that's great. Greg, tell us where we are currently with the number vaccinated in the United States, and where do you expect that to go to in the next weeks to months?
- D** Dr. Gregory Poland 02:43
Yeah. Well, the good news is that we are now up to an average of two and a half million doses a day.
- D** Dr. Halena Gazelka 02:52
Wow.
- D** Dr. Gregory Poland 02:52
Now this is important because as we've talked about before, this is, and we are in a race between vaccine, virus and variants. So, this is very good news. By the end of March, the US will have received 240 million doses of vaccine, 173 million doses of those have been distributed. 133 million, or about 77%, have been administered. So as of today, we're talking about 87 million who have gotten at least one dose that's 26% of the population, and 48 million now are fully immunized, or 14% of the population. So, that's really good news.
- D** Dr. Halena Gazelka 03:41
That is really good news, Greg. Is there enough vaccine to do this?
- D** Dr. Gregory Poland 03:45
Well, this is the you know that the demand has certainly outstripped the supply. The supply keeps increasing. You'll remember when we were talking in January, February, there was the idea from the manufacturers with refinements, improvements, etc., that they would indeed be able to ramp up production and that has happened. So, I expect in this April/May timeframe, any adult that wants to get a vaccine, will be able to get a vaccine in the US.
- D** Dr. Halena Gazelka 04:16
I feel like this is such exciting news, like Spring has just been sprung upon us.

D

Dr. Gregory Poland 04:24

It is absolutely a cause for celebration. I mean, we have been through the worst pandemic in any of our lives. And to think compared to times past the number of deaths and illnesses and disabilities and disruptions that we'll be able to prevent through vaccine is just wonderful.

D

Dr. Halena Gazelka 04:49

Our hearts do go out to those who have lost loved ones and been severely affected by COVID. We know it's still happening. We're just so glad to see that there is going to be hopefully a big swing in the other direction in 2021.

D

Dr. Gregory Poland 05:04

You're so right, Halena, you know, my heart goes out to these families who have suffered greatly. And it's a reminder that there is hope, and hope is the thing that's most important to humans, more than anything it is hope. The second thing is, it's a reminder to really ask everybody to help educate about vaccines, our way out of this is vaccine. And when you have misinformation and disinformation that scares people, or you have people think well, I'm young and healthy, I'm unlikely to die. That's true. If you're young and healthy, you are unlikely to die. But that doesn't mean you wouldn't have long term complications. That doesn't mean that you couldn't spread it to a member of your family or somebody in the store with you or your church or work, and that's where we have to make this flip from me to we.

D

Dr. Halena Gazelka 06:05

Yeah. Well, speaking of vaccines in the news, Greg, and perhaps misrepresentation and misinterpretation as so much goes on we've had so much news. There's been a lot about AstraZeneca in the past week or so, can you tell me, what is the news on the AstraZeneca vaccine?

D

Dr. Gregory Poland 06:23

Yeah, I've been very involved in this, I'm part of an international group called Insist that is an international network of specialists in immunization. And we're looking at these data as our country level regulators. One of the issues is, and it's good and bad, is that we now hear, the public hears about this information, in real time, genuinely in real time, before it has been looked at, before even the first glance of research has been carried out, and so it

tends to cause confusion. Here's where we are right now. There are two basic things that have happened. One is the concern over what you and I know is ITP, idiopathic thrombocytopenia, meaning a lowering of platelet counts after receipt of vaccine. That's not an uncommon feature of many routine vaccines that we give, it's just rarely, if ever, becomes an issue. So, there are anecdotal reports of low, very low platelet counts after receiving the first dose of vaccine. A little bit odd is that we have not seen that after a second dose, you'd expect that to be distributed pretty evenly. The report came out today of a research group that identified an antibody, and it's called a platelet four factor antibody, a similar antibody to what us as physicians know as HIT, or the HIT syndrome, basically an antibody that causes the platelet count to drop by causing clots throughout the body. And of course, when you and I as physician see clots, our temptation is use heparin. In this case, it's the wrong thing to do. It's a very different treatment. So, you look at the risk of this and you say, is it happening greater than the background rate? And the sense at this point is no. In fact, if anything, it seems to be lower than the background rate? In other words, if we went back two years ago, and we looked at this same time interval, how often would we see it. We would see it as often or more often than we're seeing it. Now, that does not exclude to be, you know, we have made it a point on this podcast to be absolutely transparent. That does not exclude that there are some people who are very susceptible to that, who get a dose of vaccine, and it's just enough to tip them over as other vaccines.

D

Dr. Halena Gazelka 09:17

So Greg, can I interrupt and ask you something? Because I heard you say something that's been playing in my mind. A little earlier you said they've there have been incidences of this ITP. And you've seen it after the first vaccine, but not after the second and, you'd expect it after the second. But wouldn't you already be weeding out those susceptible people by giving them one vaccine?

D

Dr. Gregory Poland 09:37

Yeah, and so that's the thought that if this were due to the vaccine itself, you're right, the susceptibles it would have already occurred.

D

Dr. Halena Gazelka 09:49

Okay.

D

Dr. Gregory Poland 09:49

If it's due to a different mechanism, you'd expect it to be divided over either one. And you put your finger very, very well, you put your finger on the crux of the research question that we're still left with. Is this coincidental? Is it taking a susceptible person who in a sense, was the word we use is doomed to develop it anyway, only maybe with another vaccine? Or is this something new? And, I think that's what we're still understanding. The next piece of that is an unusual clot, called a central venous sinus thrombosis clot. A clot that occurs in a vein that drains blood from the brain. That's a very serious condition, as you might imagine. So, it has happened in Europe, there are 18 cases, out of 20 million doses. And depending on whether you're a woman, a man, what race you are, and even your age, that risk normally goes from two or three per million to as many as 20 per million. So again, we're not seeing an excess over what we would expect. Now that particular condition is happening almost exclusively in younger women, and not men where you normally see this. So, I know I've given a lot of information, but I want people to have an understanding that at this point, we do not see a risk greater than background. And we're weighing that against the much greater risk of not getting a vaccine and having these same problems. The other thing is that this so far, has been confined to the AstraZeneca vaccine. Nobody has raised an issue yet with the vaccines that are currently available in the US. Nobody in the US would have gotten this vaccine unless they were part of a clinical trial.

D

Dr. Halena Gazelka 09:55

Okay. So Greg, you are saying that there is no absolute certainty at this point that any of the vaccines are causing this particular problem, the ITP and the clot thing?

D

Dr. Gregory Poland 12:11


Correct. What we are, you know, the reason I want to leave room for uncertainty here, is because in this case an antibody, this platelet factor four antibody, has been identified, usually something we see after heparin administration, but you can see it after other drugs too. These particular patients had not ever received heparin before. So, you know, it, it leaves a shadow of uncertainty, let me put it that way. But what we can say, is that the absolute rate is no greater than background, in some cases lower, and we're facing a much larger risk due to the virus itself.


D

Dr. Halena Gazelka 12:56


Definitely something that you'll be keeping an eye on and giving us updates.


 Dr. Gregory Poland 12:59
Yes, yes.

 Dr. Halena Gazelka 13:01
Now, Greg, in spite of the vaccine, and how much of it has been distributed around the world, and many people are being vaccinated, we're still seeing some hotspots. And one that I had read about on a news article late last week was Brazil. That there is a significant concern with the number of cases and the number of ICU beds used. Can you tell us what's going on with these hotspots?

 Dr. Gregory Poland 13:26
Yeah, it's a very sad situation. And they all tend to have a certain commonality, a political environment that says this is not a big issue, the virus is weak, and we are strong, you know, kind of thing. In the case of Brazil, a public health system that has basically collapsed under the weight of this, and of course, a different level of crowding than we generally have in the US, but similar to what we saw in some of our big cities, Similar to some of the big cities in Europe. So, this is a reminder, and I plead with people to please hear this, this is a reminder that this virus is still alive and well and looking for susceptibles. And all it takes is for people to for example, reject the vaccine and not be immune. I very much, as do most experts in the US, think we're going to see another surge as a result of spring break. In fact, when you look, I was just looking at the seven-day average of new cases in the US, it's 60,000. Yesterday, we had 70,000 new cases. Up 15% after nine straight weeks of dropping. This is no question related to spring break, and now you get, you bring all these 1000's of people together, and then spread them out across the country. So, I'm very concerned about this.

 Dr. Halena Gazelka 15:08
They need to remember. Oh, sorry, Greg.

 Dr. Gregory Poland 15:10
I've seen it play out over and over.

 Dr. Halena Gazelka 15:12
Yes. We think we'd learn right? Hands, face, space and vaccinate.

D

Dr. Gregory Poland 15:19

No, I know. It's, you know, it's a difficult thing. I had mentioned last time that, you know, we can kind of think of this as a matrix. And one of the concerns I have is that people are making decisions based on what they think they know about the past year. But in this year, what we know has changed. The virus has changed. So, what we knew in the past, may or may not pertain to what's happening now and in our immediate future.

D

Dr. Halena Gazelka 15:58

Well, it's a really good point. And it's a nice segway to what I was just going to ask you about now a year in, I remember, I think I had stated before in the program, that it has amazed me how much we have learned in a year and that when I was in medical school, a professor told me that 50% of what I learned during medical school would be disproven during my career. And we're seeing the same thing with COVID. But at a much more rapid rate. What do you see happening? I mean, we've seen a lot change in the last year, what do you see going forward? Are we going to be saying the same thing about variants six months from now?

D

Dr. Gregory Poland 16:33

Yeah, you know, so, you know, if we kind of constructed a grid of what are the positive factors, what are the negative factors, I'll start with the negative factors. So, what could make this worse? Vaccine hesitancy, and people rejecting the vaccine. Spring break, no question. Shortly, the end of the college semester. So, you have all these people who went crowded together, by the way, in the cities where we're seeing these variants, who then go back to college, and within weeks, will go back to their homes all over the US and the world. We have these variants of concern, which are 40-50% more transmissible. And the sense that we've talked about before on top of this COVID fatigue, people saying, well, if I'm going to get it, I'm going to get it, and I'm just not, you know, going to worry about it. So, you take those four or five factors, which are, it's like pouring gasoline on a fire. Now, what about on the positive side of this? Well, one, the vaccine rollout has occurred where, as we talked about, we're doing two and a half million doses a day. Is that fast enough? In my estimation, no. That's a world record, but it's not fast enough. We should be running these vaccine centers 18 to 24 hours a day, seven days a week, and we're not. And you know, then tincture of time, as we say, there's a significant portion of the population that takes this very seriously, that buys into science-based recommendations. There's also a significant minority of the population, a small swath, and it seems to be changing somewhat, who don't take this seriously and who don't follow recommendations. One simple metric of that is this past weekend again, we had record levels of people passing through TSA screening since the start of this pandemic. I mean, it defies any rational

explanation. So, you put all of this jumbled together. And all that has to happen is that one of these variants takes off that's 50% more transmissible, we will see what Brazil, what the UK what other countries in England have seen and are struggling with right now.

D

Dr. Halena Gazelka 19:10

Greg, it is just struck me the irony, when you talked about people going through TSA screeners, how we've had our kids at home, almost for a solid year, in many places out of school, doing school virtually and not in person. And now they're mingling, we're mingling and all kinds of people in airports at the TSA.

D

Dr. Gregory Poland 19:29

Yeah, I mean, you know, again, as we've talked about, one of the prime features of pandemics is human irrationality. There doesn't seem to be any cure for that we do things that are rational, and that make it worse for all of us. One example of this, and the matrix that we were talking about, is what we have learned with the current circulating virus is that particularly grade school kids are not affected and are not the seeming source of outbreaks that we worried about like influenza they are. People are operating on the assumption that will still be true in the future, but there's a critical difference here. These new variants, let's take the UK variant, is again 40 to 50% more transmissible with four-fold higher viral loads.

D

Dr. Halena Gazelka 20:32

Wow.

D

Dr. Gregory Poland 20:33

Making it quite possible that we will see more and more infections in younger adults and kids.

D

Dr. Halena Gazelka 20:42

Say Greg, we haven't used the term or talked about this, the term herd immunity, and you've kind of explained to us in the past why this is maybe a useful term to describe something, but not complete accuracy.

D Dr. Gregory Poland 20:55
Yeah.

D Dr. Halena Gazelka 20:56
Where are we in terms of what we were calling herd immunity with enough people being vaccinated, and now with the uptick will we be getting there pretty quickly?

D Dr. Gregory Poland 21:06
Yeah, so herd immunity is a theoretical construct that does have some basis in reality, but it assumes that there's homogeneity through the population, and there isn't. For example, you look at North and South Dakota. They have had the highest per capita death rate of any place in the world, and the reason for that is a rejection of science based, you know, recommendations. So, you look at what herd immunity would be there versus let's just take our own city of Rochester, Minnesota, where it's a very educated, heavily medical population where they understand the science behind this you know intrinsically, and the uptake of vaccine has been incredible. Herd immunity, based on what we now know around Brazil, is probably going to take something North of 85, maybe even 90%, so, when you think about that are we really going to reach 90% of the population with a vaccine? I don't think so. Too many people don't understand this. Might we reach it between vaccine and people who got infected and survive it, maybe enough to slow it down and to convince people of the importance, the safety and the efficacy of vaccine

D Dr. Halena Gazelka 22:39
Well, lots going on Greg and some very positive things, and a reminder to overcome COVID fatigue and keep doing the work that we need to be doing

D Dr. Gregory Poland 22:49
Indeed, indeed.

D Dr. Halena Gazelka 22:51
Anything else you'd like to share with us this week, Greg?

D Dr. Gregory Poland 22:54

You know the same thing I always say because I just think it's so important, you know we talked transparently about the areas of concern, but I think what we have seen, and you and I have talked about over the last month or so, are these increasing signs of hope, and I think hope can give us the sort of the cognitive and emotional energy to hang on here and to look to credible sources for information. I am besieged with people who say well here's what I've heard and I always tell them you know you wouldn't ask your grocery store clerk about your electronic transmission in your car, don't ask your grocery store clerk, or your neighbor about vaccines. Go to medical centers, go to the CDC, go to the Infectious Disease Society of America, and look for credible information because you're making a decision that affects not only your life and well-being but that of your family and friends and coworkers

D

Dr. Halena Gazelka 23:59

That's a really good point Greg. I've used a similar analogy for patients saying, you know you come to me as a trusted source of information and to Mayo Clinic, and so we want to be that trusted source of information. I said if I, you know, needed help with my car I would ask a car mechanic yeah about the transmission but wouldn't rely on myself or the internet necessarily.

D

Dr. Gregory Poland 24:23

Exactly right, exactly right. I mean, you know and part of the truth of being trustworthy is telling the truth, even when it's unpleasant, and we've done that. We've talked very frankly about the realities, at the same time balancing that with the truth about the safety and efficacy of these vaccines.

D

Dr. Halena Gazelka 24:45

Well thank you Greg, for being here again today to give us our COVID-19 updates.

D

Dr. Gregory Poland 24:51

My pleasure.

D

Dr. Halena Gazelka 24:52

Our guest today has been again, Dr. Greg Poland, infectious disease expert at Mayo Clinic. I hope that you have learned something. I know that I certainly have, and we wish everyone a very lovely day.



Narrator 25:05

Mayo Clinic Q&A is a production of the Mayo Clinic News Network, and is available wherever you get and subscribe to your favorite podcasts. To see a list of all Mayo Clinic podcasts, visit [Newsnetwork.mayoclinic.org](https://newsnetwork.mayoclinic.org). Then click on podcasts. Thanks for listening, and be well. We hope you'll offer a review of this and other episodes when the option is available. Comments and questions can also be sent to Mayoclinicnewsnetwork@mayo.edu.