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SPEAKERS


Dr. Halena Gazelka, Dr. Gregory Poland, Narrator

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Narrator 00:01

Coming up on Mayo Clinic Q&A...
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Dr. Gregory Poland 00:04

Get whatever vaccine is available to you. These are highly effective vaccines. They are safe vaccines, and so far as we can tell, after 100 million doses, and this is how we're going to get out of this situation.
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Narrator 00:21

But even with the rapidly expanding vaccine rollout, the US could still see a surge of COVID cases this spring,
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Dr. Gregory Poland 00:27

I think most of us expect a major surge, because of spring break travel, and the concomitant relaxation of restrictions, and the sort of COVID fatigue that all of us do feel in one way or another.

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Dr. Halena Gazelka 00:47

Welcome, everyone to Mayo Clinic Q&A. I'm Dr. Halena, Gazelka. We're recording this podcast on Monday, March the 22nd 2021. Spring is here. Even in Minnesota, it was warm this weekend. Now many people are getting vaccinated and life is kind of getting back to a new normal. Well, Dr. Greg Poland, biologist and infectious disease experts at Mayo Clinic is here to discuss this with us today, along with ongoing topics about COVID-19. Thanks for being here, Greg.

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Dr. Gregory Poland 01:18

Yes. Good to be here. And happy springtime.

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Dr. Halena Gazelka 01:21

Yes, it's wonderful. It feels like spring, I may be a little premature saying that. But the calendar says we are. You never know what's gonna happen in Minnesota. Say, Greg, catch us up on the vaccine, the vaccination rates in the United States.

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Dr. Gregory Poland 01:37

You know, we're doing surprisingly well. You know, the the goal set by the new administration was 100 million doses in 100 days, I think they've already surpassed that. We're at a point now where 17% of US adults are fully vaccinated. 40% of those who are 65 or older, are fully vaccinated 40% of people over the age of 65. And many states now are beginning with this increased supply to open up and minimize any, you know, restrictions. So, this is a very, very good sign.

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Dr. Halena Gazelka 02:18

Well, speaking of opening up and minimizing restrictions, I'm seeing all kinds of articles and news reports about spring break. Apparently, it is spring break time in America and many of our gathering on the beaches. So, tell us how this might, might affect things going forward? Do we expect surges? are we concerned about variants? What do you think?

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Dr. Gregory Poland 02:41

Very, very concerned about variants, particularly the so called b 117, or UK variant also called the Kent variant, probably 30 to 50% more transmissible and infectious, so I think most of us expect a major surge because of spring break travel, and the concomitant

relaxation of restrictions, and the sort of COVID fatigue that all of us do feel in one way or another. That combination is not a good combination. And I'm pretty sure we're going to see a fourth surge now. We've done this over and over where we see a plateau relax restrictions, only to have a higher surge than before. And this time, it's with a variant of more concern.

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Dr. Halena Gazelka 03:40

I have a question about vaccinations and pregnant women. Some reports that if someone receives a vaccine during pregnancy, that they are able to pass on immunity to COVID-19 to newborns.

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Dr. Gregory Poland 03:54

Yeah, this is a piece of good news. There's just a case report pending. This is one pregnant woman who got one dose, I think it was the Moderna vaccine. And then within three weeks or so delivered her baby so she got one dose prior to delivery. And that baby did have antibodies, low level, but nonetheless antibodies, which suggests that that can be transferred from mother to child and therefore protect that child in those early months before they might have an opportunity to eventually get immunized. We also know that it can be passed in breast milk too, which is another advantage, so we need more data on this more mothers to be studied, but at least in this one case, it could be demonstrated.

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Dr. Halena Gazelka 04:48

That is really interesting, Greg, because we have had so many questions about whether someone should receive the vaccine during pregnancy. And we have also talked about the fact that sometimes immunizations are not effective in very, very, very young because of their inability to form antibody. So an interesting protective strategy.

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Dr. Gregory Poland 05:00

Yeah, on and you know, we do that with pertussis, we do this with influenza. And I think you're exactly right now, the manufacturers are planning studies down to somewhere between two months and six months of age. So we'll know more, more. And there's a there's a large study going on now of vaccine in pregnant women. So again, we'll have more and more data involving 1000s and 10s of 1000s, rather than small groups of numbers.

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Dr. Halena Gazelka 05:41

Greg, peripheral neuropathy or nerve type of pain, particularly in the feet, sometimes in the hands, but usually in the very distal parts, so the ends of our feet or toes or hands, soles of feet sometimes can be affected by this these type of nerve pains called peripheral neuropathy. So is there any connection between those or concern out with those type of disorders and COVID-19? vaccination?

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Dr. Gregory Poland 06:10

Yeah, certainly, you know, I've heard anecdotal reports from patients and in the media, but honestly, when you look at the clinical trial data, and you look at various reports, so safety reporting, nothing has shown up yet in terms of any kind of peripheral neuropathy in association with the vaccine. And, you know, we're over 100 million doses that so you know, you never know whether you could be in a situation where somebody has a neuropathy, or a predisposition, they get a vaccine that could be you know, it does stimulate an immune and inflammatory response. Could they have some transient symptoms that resolve on their own? certainly possible? Have we seen cases that where they had no such symptoms, got a vaccine, develop this and had no predisposing factors? And they continue to have it? No.

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Dr. Halena Gazelka 07:11

Very interesting. Okay. Here's a question that concern many of us, including our listeners would like to have a glass of wine at night, or once in a while. Is it okay to drink alcohol, but between doses of the COVID vaccines?

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Dr. Gregory Poland 07:27

Yeah, you know, I think we don't have any concern here with, dare I say reasonable use now. Now, what do I mean by that? Certainly somebody who is overusing or abusing alcohol, what we would call alcoholism or an alcohol use disorder, those individuals do have compromised immune systems because of end organ damage that occurs. But if you wanted to have a glass of red wine with your cheese and crackers, in the afternoon, or your dinner, no issue whatsoever, in that, it is not going to affect the immune response.

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Dr. Halena Gazelka 08:09

Well, I am very glad to hear you say that right. Thank you. So it isn't a problem with the alcohol itself necessarily having a glass of wine, it's the effects of alcoholism.

D Dr. Gregory Poland 08:21
The longer-term effects or of overuse use, yes.

D Dr. Halena Gazelka 08:24
That makes sense. Tell us about Moderna, and what they are working on in terms of the next generation of vaccine. Yeah, so

D Dr. Gregory Poland 08:31
What Moderna is doing and you know, we let me just define here when we talk about next generation vaccines, these are any of the next cycle of vaccines. So Moderna has several different next generation vaccines. One is being developed in regard as many of the manufacturers are in regard to the variant viruses that are arising. The particular one that you're hearing about, which is called the Moderna mRNA 1283, is a vaccine being developed to be refrigerator stable. Right now it has to be kept in a freezer and as a limited, you know, time that it can be out of a freezer. So they're working on cold stability. But the other interesting thing they're looking at when they do this phase one study is they're going to look at the current 100 microgram dose as one dose versus two dose and compare that to a 10, 30 and 100 microgram dose, which you know, if that turned out to be possible, you have now let's say you have the 10 microgram dose you have now it's expanded the vaccine supply with that vaccine tenfold? Yes. Which is, which is really important because one thing that's important, yes, we need to protect everybody in our country. But everybody in every country needs to be protected. And so you may have heard, in fact, the US is going to sell some of its vaccine, maybe even donate, I can't remember which one, to Mexico and Canada. They've had a tighter vaccine supply. Well, that's, that's fantastic. Because there's a lot of movement, you know, across borders. So the sooner the world is vaccinated, we will as they say, you are now free to move around the country.

D Dr. Halena Gazelka 10:30
Right, we're all looking forward to that a little bit more. I'm going to move to just a little different topic. But when I've been a little bit curious about myself, and wondered what you think. In the beginning, there had been a lot of talk about this contact tracing. So in other words, if someone was positive for COVID-19, or became ill, that they would contact the contacts of that person to to see if they would need to be tested or to kind of follow how the virus was moving, I think within the population partly to. And now, there were so many people with COVID-19, that it almost became impossible, I'm sure to track. Do you

think that will become important again? Yeah. As we talk about the variant?

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Dr. Gregory Poland 11:14

Yeah, good, good. Good question, Halena? I mean, you're right, that the contact tracing was just very quickly overwhelmed, other than in small local situations. You know, we're at a stage now we're about one out of every 10 or so Americans has been infected, we have lost about one out of every 590 Americans to COVID. So I mean, this is an unprecedented tragedy in our in our lifetimes, I think, when and if we can get this dampened down low, then we will revert to more intensive contact tracing, because as you're trying to get rid of the last cases, you know, you have to be concerned of over what we know now, maybe 40 to 50% or more of cases are transmitted asymptotically. In other words, you sit down on an airplane next to somebody, you don't know that they have it, they don't know that they have it, and then they go and mix and mingle and you're in close proximity for several hours. That's how things like this happen. Similarly, we are beginning to reopen schools and decrease the distancing requirement in the face of more transmissible variants. So I think we will see more contact tracing as resources allow it.

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Dr. Halena Gazelka 12:45

Greg, this next question comes from me overhearing conversations, casual conversations, and got me to thinking, there's a lot of question about will COVID become endemic? Is it going to be something that we face every year like the flu, for instance, and well, we need to be vaccinated every year?

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Dr. Gregory Poland 13:04

You know, this is an interesting question, let me tell you about one study that just came out of Denmark. They looked as long as seven or eight months after somebody had gotten infected, and said, what is your protection in that time interval against reinfection? So you were infected? Seven, eight months goes by what level of protection do you have against reinfection? If you were under the age of 65, you were about 80%. protected.

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Dr. Halena Gazelka 13:40

That's pretty good.

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Dr. Gregory Poland 13:41

Now this is interesting because people think that they are protected forever. And clearly,

they're not. If you were over the age of 65, that level of protection fell to 47%. So it is clear that people who have had infection can get reinfected. So that's one important point. The second point is that we know with seasonal Corona viruses that people do repetitively get infected. So my guess is that what the virus is learning to do, by infecting one after another of us and mutating, is that it is learning to be much more highly transmissible and likely then will evolve into something that is more akin to a endemic virus much like influenza where, and I don't know whether it be every year every two years, something like that, we may well be reimmunizing.

D

Dr. Halena Gazelka 14:44

That's fascinating and makes me wish this virus wasn't so smart.

D

Dr. Gregory Poland 14:47

Oh, I know. I mean, we are literally watching in real time viral evolution happening. And it is born of just unchecked transmission through the population. I mean, it really is. This is this is a factor of human behavior as much as it is viral behavior.

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Dr. Halena Gazelka 15:11

This whole year has been fascinating. And just imagine how much people have learned about viruses that they never thought they would they never thought they would know or need to know.

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Dr. Gregory Poland 15:21

They most people never heard of P-P-E, right?

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Dr. Halena Gazelka 15:25

That's right. Well, thanks, Greg, do you have any last words of wisdom to share with us?

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Dr. Gregory Poland 15:31

You know, somewhat akin to things that we've said, when you have access to a vaccine and, and very soon, basically, every American adult is going to have access, get whatever vaccine is available to you. These are highly effective vaccines, they are safe vaccines, and so far as we can tell, after 100 million doses of giving them and this is how, this is how we're going to get out of this situation. And hopefully, before worse variants develop. So

when we don't get vaccinated when we don't practice hands, face and space, we are allowing the virus to get worse in terms of its effect on human health. So this is really, really important. And we have to all work together to, you know, smash, the misinformation, the disinformation that occurs, and which is hurting, harming people.



Dr. Halena Gazelka 16:36

I'm really glad you mentioned that, Greg, because we've had concerns here. Even Mayo Clinic has Moderna, Pfizer, Johnson and Johnson and some of the employees have wondered, well, could I pick which vaccine I wanted? Or am I getting something lesser if I have to get a vaccine that others didn't get? And I love to hear you say, get the vaccine that you can get?



Dr. Gregory Poland 16:57

Yeah, absolutely. Remember that all three vaccines that we have in the US are essentially 100% protective against death, hospitalization, and severe disease. It gets lesser when you go down to moderate or mild disease, and we care about that. But the first thing is we don't want you to be hospitalized. We don't want you to die as a result. And these vaccines are better than any other vaccines we have in preventing that.



Dr. Halena Gazelka 17:30

I had read an article with a CEO of Pfizer saying get whatever vaccine you can get. And I thought Well, isn't that telling he's not trying to sell a vaccine? We're trying to get the population vaccinated.



Dr. Gregory Poland 17:43

This is. this is human health. You know, one level it boils down to would you, would you barrel down the highway without seatbelts, good tires, brakes, and airbags? No. no. Why? Why would you do it with a virus like this? That is so widespread.



Dr. Halena Gazelka 18:03

Hands, face, space, and vaccinate.



18:06



Dr. Gregory Poland 18:06

And vaccinate.



Dr. Halena Gazelka 18:08

Was that last one we had to tag on? Thanks so much for being here, Greg.



Dr. Gregory Poland 18:12

My pleasure.



Dr. Halena Gazelka 18:13

Our thanks again to Dr. Greg Poland. virologist, vaccine expert, infectious disease expert at the Mayo Clinic for being with us here again today. I hope that you learned something. I know that I did. We wish you all a wonderful day.



Narrator 18:27

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