

Mayo Clinic Q&A - Dr. Gregory Poland COVID-19 Update 03 28 2...

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SPEAKERS

Dr. Halena Gazelka, Dr. Gregory Poland, Narrator

N Narrator 00:00
Coming up on Mayo Clinic Q&A.

D Dr. Gregory Poland 00:03
And when you look around the nation all of the metrics with the exception of BA.2 have fallen precipitously. It would be maybe unwise of me not to sort of leaven that with the other side of that coin. We're experiencing about 30,000 new infections a day. in the U.S., about 800 deaths. There's about 3,000 people in the ICU with COVID across the U.S., and about 18,000 in the hospital.

N Narrator 00:07
While COVID-19 cases are trending down in the U.S., there are question marks about the next stage of the pandemic.

D Dr. Gregory Poland 00:42
We can just sort of look at the tea leaves and say, what do you think those mean? We can say, well, every time we've seen that combination of markers in the past, we've had a new variant that's caused a new surge. That's where we are right now. We're just coming down into a quiet period. Many of us think that it's likely that we're going to see another surge.

D Dr. Halena Gazelka 01:09
Welcome, everyone to Mayo Clinic Q&A. I'm your host, Dr. Halena Gazelka. We're recording this

podcast on Monday, March the 28th, 2022. Here in Minnesota, we hit a positive milestone last week on March 23. It marked the first time in more than seven months that the state had a day with no deaths from COVID. Nationwide there are also some positive signs as hospitalizations and deaths continue to decline. Well, here with us again today on Monday to discuss and to give us our COVID updates is Dr. Greg Poland, virologist and vaccine expert at Mayo Clinic. Welcome, Greg.

D Dr. Gregory Poland 01:47
Thank you. Good morning, Halena.

D Dr. Halena Gazelka 01:49
Good morning. Happy Monday.

D Dr. Gregory Poland 01:51
Yes, indeed.

D Dr. Halena Gazelka 01:53
Well, kind of exciting. I was amazed to see that in the news no COVID deaths in a day in Minnesota.

D Dr. Gregory Poland 02:00
Yeah, that is quite remarkable. And when you look around the nation all of the metrics with the exception of BA.2, and we can maybe talk about that, have fallen precipitously. But you know, it would be maybe unwise of me not to sort of leaven that with the other side of that coin. We're experiencing about 30,000 new infections a day in the U.S., about 800 deaths. There's about 3,000 people in the ICU with COVID across the U.S., and about 18,000 in the hospital. So, you know, on the one hand, there's cause for celebration in terms of the declining and dramatic numbers. But if we were starting the pandemic with news that, what 5,600 people a week were dying of this infection, and 150,000 new infections a week, we'd be like, ooh, so it's just the fact that we've kind of normalized what under other circumstances would not be normal.

D Dr. Halena Gazelka 03:20
Right, it would still be a human tragedy.

D Dr. Gregory Poland 03:22
Yeah.

D Dr. Halena Gazelka 03:22
And now we're sort of celebrating small silver linings.

D Dr. Gregory Poland 03:26
Exactly.

D Dr. Halena Gazelka 03:27
Small successes, I guess. So, overall, Greg, how are we doing? What's your assessment?

D Dr. Gregory Poland 03:34
Well, you know, overall pretty good. At least compared to where we were. If you said, well, what about in comparison to other countries? That's where it gets a little iffy. If you look here in the U.S., and you look at everybody age 65 and older, we're doing great, about 90 plus percent have been immunized. If you look at people age five years old and over at the number who have gotten just two doses, we're at 70%. And if you look at all ages, now we're including people ineligible, but if you look at the whole population, only 65% of people have gotten two doses. And of that 65%, less than half have gotten a booster. And this combination of events, the increasing number of BA.2 infections, that's a new variant. The identification of three other new variants called XD, XE, and XF are starting to circulate. You take the Ukrainian refugees pouring into Western Europe. You take the increase in viral levels in wastewater municipalities around the U.S., all of that is suggesting, and again, who can speculate? We can just sort of look at the tea leaves and say, what do you think those mean? We can say, well, every time we've seen that combination of markers in the past, we've had a new variant that's caused a new surge. That's where we are right now. We're just coming down into a quiet period. But with this set of metrics or markers, many of us think that it's likely that we're going to see another surge. The question is, will it be BA.2, one of the newer variants that have been identified, or something completely unexpected? And it's an argument again, for this idea of be very cautious about pretending that the pandemic is over. It's not. It waxes and wanes, and we're just in a waning period right now. But as I've said many times, we've watched this movie five times, and the outcome has always been the same, another deadly surge. So, you know, my own advice is what you and I have said on this podcast consistently, continue to wear a proper mask properly when you're indoors around people not your family, and be sure that you're fully immunized and boosted.

D Dr. Halena Gazelka 03:52
Okay, Greg. So, there's two questions out of that, that I want to follow-up with. One is about BA.2, and one is about boosting. But I just have to say that we've talked before about where in the world did we come up with these names. And it may be just because I spent last week with

my grandsons on spring break that the names for the new variants reminded me of a Dr. Seuss, little things, the XY and Z guys.

D Dr. Gregory Poland 06:56
The Deltacron.

D Dr. Halena Gazelka 06:59
Yes. We've compared them to Transformers and things like that in the past. So, two things. Tell us a little bit more about the BA.2 variant, and then I want to ask you about the latest on boosters.

D Dr. Gregory Poland 07:11
Yeah, so the BA.2 variant is of concern. And the reason for it is it's on average about 50, maybe even up to 60% more transmissible than Omicron was, which was 50% more transmissible than Delta, which was 50% more transmissible than Alpha. So, you know, when you look at compared to the start, we're looking at variants that are 200 plus percent more transmissible than what we started with. So, that's of concern. And, you know, if you look back, I think starting two months ago when you and I did a podcast, and we were just starting to recognize BA.2, it was 1%, then 7%, the next week 14%. Along the Northeast Corridor, we're at about 30 to 40% of new cases are BA.2. Worldwide, it's about 85 plus percent. In the UK, about 85%. And the UK has a higher immunization rate than we do, and they are experiencing a significant surge, a 20% increase in hospitalizations, new cases, and deaths, despite having a higher immunization rate than we have in the U.S. So, this is what makes the number of us who watch these metrics closely concerned.

D Dr. Halena Gazelka 08:50
Greg, tell me about what we need to know about boosters. I feel like this is another one of those topics that sort of the ground shifts a little bit in the in the advice, and so I just was wondering if you could give us an update on what should we be doing?

D Dr. Gregory Poland 09:04
Yeah, this has actually several nuances in it. And you're right Halena to say that this is very kinetic, very, very dynamic. And all of us struggle to keep up with anything resembling real-time in terms of chasing after the virus and measuring data at large population levels. That's an introduction to say that most of the data that we have, in regards to helping us think through a second booster, is coming from other countries and primarily Israel. They have instituted a second booster. Germany has, and the UK either has or is about to. So, a number of countries, developed countries, are starting to introduce second boosters. I would say in the next day or two we are probably going to hear an announcement about that in the U.S. And April 6th, the FDA Advisory Committee is set to meet, followed then by the CDC Advisory Committee. My best

guess, this is speculation, is that we're going to see a permissive recommendation more than likely. In other words, something along the lines of those 50 and older can get another booster if they would like one. So, what do the data show? Well, most of the data surrounding this comes almost exclusively from Israel. And that is showing that in seniors who get a second booster, the mortality rate due to COVID falls by 78%. That's a pretty big, you know, drop, but you have to you have to relativize that, and we have not seen those data. So, 78% decrease, what does that mean? Is it a small number per 1000, or 10,000, going to an even smaller number? Those data we really need to see. And the second issue is, how long will the efficacy of that second booster last? And here's why this is important. And maybe this will help people to understand the difficulty in making public health recommendations. We've seen Omicron, BA.1 drop precipitously as we discussed. We are seeing BA.2 take off exponentially. If you give a booster too soon, you miss the peak of that next surge. Wait too long, you miss the peak. And what I meant by giving it too soon is that antibody levels do wane over the course of about 90 days or so. So, you don't want to give it too soon, nor do you want to wait too late. And so, there's a tension in there that nobody can resolve. It has to wait until we collect the data and see what direction is this virus actually going. So, there's the dilemma. For people who are immunocompromised, same dilemma where we're probably going to have to recommend another dose for them, which would be in total five doses for them. And I know one of the frequent questions I get, and you get is, well, with all of this, is it time to have a variant focus booster? Like an Omicron focus booster? No sooner would we develop that, then we've moved from Omicron to BA.2, to XD, XE, or XF. And so, it's difficult to put those kinds of resources into such a highly kinetic target. Having said that, one thing we can say is that the vaccine that we're getting based on the original strain has covered all of these variants, and covered them well, really well in terms of the severe outcomes like death, mechanical ventilation, and even hospitalization. It's only about 50 to 70% effective in the moderate, even less so in the mild or in preventing infection all together. And that introduces, if you want to talk about it, the new Moderna data on kids.

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Dr. Halena Gazelka 13:49

Yes, that was my next question for you. What about kids under five?

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Dr. Gregory Poland 13:54

So, last week, the study called KidCOVE, kind of cute, looked at a Moderna dose that was 25 micrograms, not the 100 microgram dose that adults otherwise get. And what it showed in that six months to up to five years of age group is about a 40%, plus or minus a couple percent, about a 40% efficacy in protecting against infection with Omicron. Let that sink in a minute. 40% efficacy. Now the FDA had originally set as a limit a minimum of 50%, though they allowed it to drift as low as 30%. So, that's sort of right in there, and you'd say, well, that's not like the 95% we heard. No, it's not. It is consistent with the 50ish, 60ish percent efficacy of the vaccine we have against the current variants. And that's a nuance that people would need to understand. As I said, the vaccine we have is extremely efficacious against severe manifestations. But if you just look at infection with Omicron, about 50%, and in this KidCOVE study about 40%.

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Dr. Halena Gazelka 15:26

Does that mean they'll consider a higher dose for kids?

D Dr. Gregory Poland 15:29

Well, I think that's the big debate, Halena. You put your finger on it. Should we use a higher dose? I think not. With Moderna might it be more than two doses? Quite possibly.

D Dr. Halena Gazelka 15:44

Okay.

D Dr. Gregory Poland 15:46

I should say one other thing, sorry to interrupt you.

D Dr. Halena Gazelka 15:49

No, go ahead.

D Dr. Gregory Poland 15:49

In that study of younger kids, they did not see any of the myocarditis or heart inflammation, or other more severe side-effects that we've seen in adolescents or adults. They did not see those. Now, smaller numbers, right? About 6,000. Not 60,000. But to date, no evidence of that.

D Dr. Halena Gazelka 16:13

Oh, that's good. That's a positive.

D Dr. Gregory Poland 16:15

Yeah.

D Dr. Halena Gazelka 16:15

Say Greg, we had a question from a listener. And while we're talking about kids, I thought I would ask it to you because I thought it was kind of a fascinating question. The individual has a couple of toddlers and was wondering, are toddlers perhaps more susceptible to getting the virus? Because if you think about it, adults are above them communicating, and the viral

particles are they falling onto the floor. So, are toddlers who are in contact with, you know, the floors, and the rugs and lower things in the home, more susceptible or potentially more susceptible to COVID, than an adult might be?

D

Dr. Gregory Poland 16:56

Leave it to our listeners to ask spectacular questions. That's a very thoughtful question that deserves a thoughtful answer. So, my mind's kind of racing here. I guess what I would say is a couple of things. One is, it is true that the larger respiratory droplets fall within three to six feet to the ground. That's why the primary risk factor for adults has proven to be more the indoor aerosolization. So, even a toddler would still be prone to that. But the heavier droplets that would be virus infected hit the ground where toddlers, and we've got a toddler grandson right now, so I re-remember how they're all over the floor putting everything in their mouth. You know, I would say that's a potential. I don't know of any research. One thing that does happen, not to be gross here, but the virus gets enmeshed into the saliva and mucus. So, it's not necessarily available for infection. But if you take a toddler who's touching everything, and then putting their hands in their mouth, you have to believe that under the wrong set of circumstances, an infected person, coughing and expelling heavy droplets that fall to the floor onto a toy, and almost immediately the kid puts the toy in their mouth. I would say that's a logical sequence of events. We just don't have any research that guides us for sure.

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Dr. Halena Gazelka 18:45

Okay, back to vaccines. I understand there's some good news regarding pregnant females, and obviously females, and mRNA vaccines.

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Dr. Gregory Poland 18:56

Yeah, that's been a highlight of this past week. We had two very large studies. Now, I want to sort of prep what I'm about to say. One of the things that occurs, legitimate, is that people are reluctant to take a vaccine until there's a lot of data. And that's legitimately a greater concern for a pregnant woman, right? So, we've followed the data all along. We have not seen any evidence of concern. Now there are two studies, one that occurred in Norway and Sweden involving almost 158,000 pregnancies. A second study in Ontario involving almost 100,000. So, we're looking at, you know, a database of just in these two studies of a quarter of a million women pregnant, most of whom got mRNA vaccines, very few got J&J vaccine, and consistent with when most women become aware of their pregnancy, the vast majority of those immunizations were given in the second or third trimester. And voila, nothing to suggest any risk to that pregnant woman. And they looked at all kinds of things. They looked at stillbirth, small for gestational age, low Apgar scores, the neonates having to be admitted to a NICU, infection, hemorrhage, C section. Nada, nothing to suggest any risk. And of course, the benefit is to both the mother and to the baby because that baby receives passively transferred antibodies through the placenta and through breastfeeding. So, this is a definite win for pregnant women. And I hope these studies alleviate any concern that they had about those vaccines.

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Dr. Halena Gazelka 21:09

Well, that is some good news today.

D

Dr. Gregory Poland 21:11

You're protecting two people and only immunizing one.

D

Dr. Halena Gazelka 21:15

That's right. Greg, could you talk a little bit about diabetes risk after COVID infection? Why?

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Dr. Gregory Poland 21:22

So, Halena this is something that we are early in understanding. And again, I want to set it up a little bit, because one of the mantras that I've repeatedly heard over the last two years is, well, I got COVID, or my family, or you know somebody else, and we're fine. And I would say, well slow down there. What the data actually show among people who survive COVID, even mild COVID, is a host of follow-on, if you will long COVID problems. And we're enlarging our definition of long COVID. So, we've got already the 10, 30, up to 50% risks of what we typically think of long COVID. But diabetes may also be a manifestation of long COVID. And in fact, the risk of developing diabetes and having to go on a medication is about 40, four zero, 40% higher in people who have had COVID, and these new diagnoses occurred as long as a year after their COVID. So, they may think they're fine, only to find out that they've got an elevated blood sugar and need treatment. We have other studies showing about 20 different cardiovascular diseases, increasing in risk over that first year after COVID. And now, in many ways, even more concerning, is an elegantly done study looking at the brains of individuals who had COVID, didn't die of COVID, but died of other causes. And there is significant gray matter shrinkage, and in other people cognitive declines. Now, we warned a bit about this because we realized right away the loss of smell was fundamentally a neurologic side-effect of COVID. Now we're beginning to see an enlargement of the neurologic side-effects that occur from COVID. So, this is very concerning. I am very concerned about this. And it extends to now some studies starting to be done to say, well in young children, or even in infants that get COVID, are we setting them up for learning disabilities, or behavioral issues because they're not vaccinated, or their families are not vaccinated? So, you know, in many ways in every realm that we can look at getting vaccinated, and wearing masks, and preventing getting COVID benefits you in more than just not getting COVID. It's all of the follow-on consequences of COVID. And that list is growing every week or two as these studies get done. So, I'm afraid we're going to see, you know, if not a pandemic an epidemic of diabetes, of neurologic side-effects, of cardiovascular premature diseases occurring, and this is not of course a good thing.

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Dr. Halena Gazelka 24:59

Terrible Greg. And compound that by all of the societal and economic and other tools that this pandemic has taken, it really is a little bit overwhelming at times.

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Dr. Gregory Poland 25:12

Oh, yeah. And then you know, of course, the mental health aspects which, you know, all of us suffer from. We want to get out and about our normal lives, our normal social interactions. And, you know, there really hasn't been a time quite like this in history for us as moderns, if you will. And that's part of the reason it's been so difficult to navigate, whether at the public health, or political, or community and even individual level, but, you know, it kind of goes back to me, to the old saw, don't tease the tiger. And I'm afraid that's what we're doing. We're teasing the tiger here by pretending that we can just drop all precautions because we're tired of it. The virus could care less, and we'll take advantage of and exploit those opportunities. And that's particularly true. At the risk of getting choked up, I grieve for the unvaccinated. And any unvaccinated person who has talked with me, I'm more than willing to answer their questions and talk to them because of the terrible discrepancy in what happens to them and their families by rejecting vaccines and rejecting masking. It's just horrible. We are right now, today, one out of every 328 Americans has died of COVID. I have forgotten the exact statistic. Is it one out of every 450 or so children in the U.S. has lost one or both parents due to COVID? I mean, these are just devastating consequences. And somehow, we've just normalized this as if this is okay. And like I say, by pretending that the pandemic is over, we're not only teasing, we're taunting the tiger. And that's not good.

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Dr. Halena Gazelka 26:18

Greg, my last question for you today is just a little bit philosophical. What does learning to live with COVID look like for us?

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Dr. Gregory Poland 27:30

Hmm. Again, a very, very thoughtful question, Halena, and I think they're probably multiple spheres within that. School has been different. Work has been different. The economy has been different. Travel has been different. I think the direction we're going is that there are going to be two classes of people in the U.S. and in the world. Those who have been I would say wise, and gotten immunized and follow medical advice, and those who I would say have been unwise, and who have really suffered the burden of this pandemic, and of death and disability. And some of that can have to do with access to care. In other words, it's not always somebody's choice or fault, in regard to that. So, you have the rejecting and hesitant, and you have the people who have done what medicine and science has asked of them. So, going forward, I think what we're going to do, is see that the virus will eventually become endemic. That does not mean not present. It means at a baseline level, and periodic flare ups, much like we'd seasonally see with influenza. And what that means is that going forward, the unvaccinated, the non-immune are going to continue to suffer the burden of this disease. It's not going to go away for them. They're going to always be at risk. Whereas you and I and other people that have made the choice to do what science has asked of us, to get vaccinated, to get boosted, to wear our masks. We will have infection in some of us, but it will be mild or asymptomatic, more like what we think of as flu. I also think it's going to fundamentally, or I hope it fundamentally changes our preparedness for the next pandemic. We were not prepared. There's no data here that says we handled this beautifully. And I will tell you that in all the tabletop exercises I've been involved in with government agencies and even other nations, nobody has really looked at a pandemic that has wave after wave after wave where

the pathogen changes. That's a new twist. And I think we have to recognize that we need to be wary. We need to be a scientifically literate and informed, not afraid, but informed society and to whatever degree and whatever it takes to have a populace that trusts public health, and trusts the government. There's a lot of repair work to be done there. But that's good work to do. And so, I think we will, going forward just accept a certain amount of death, of hospitalizations, as I say, primarily among the unimmunized, the non-immune. And I hope that in the wintertime we will, like many Asian countries, change to being mask wearers during those surges. It's of interest, Halena, I've studied influenza all my adult life. Influenza cases are rising in March and going into April, they're rising. And guess what, coincident with people taking their masks off, and all the precautions falling away. Now, having said that, the vaccine is not well matched against the current influenza virus. It still offers some protection against death and complications. But this is a reason for us to continue to move forward cautiously.

D Dr. Halena Gazelka 27:46
Words of wisdom. Thank you, Greg.

D Dr. Gregory Poland 32:04
My pleasure.

D Dr. Halena Gazelka 32:06
Our thanks to virologist and vaccinologist Dr. Greg Poland for being with us again today to give us our COVID-19 updates. I hope that you learned something. I know that I did. We wish each of you a wonderful day.

N Narrator 32:19
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