

Mayo Clinic Q & A - Dr. Gregory Poland - COVID-19 Update Tra...

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SPEAKERS

Dr. Gregory Poland, DeeDee Stiepan, Narrator

N Narrator 00:01
Coming up on Mayo Clinic Q&A,

D Dr. Gregory Poland 00:03
This BA.5 variant is hyper contagious. And right behind it, new variants are coming. We will continue to generate these variants until people are masked and immunized.

N Narrator 00:22
The Omicron BA.5 variant is now the dominant strain in the U.S., and thanks to its elusiveness when encountering the human immune system, it's driving a wave of cases across the country. So, how do you keep yourself and your family safe?

D Dr. Gregory Poland 00:36
But if you want the truth and the reality, it is be up to date on your COVID vaccines that are recommended for your age group etc. Sometime late this summer or fall, we may well have a variant focused vaccine. Get it when it becomes available and wear a proper mask properly when you are indoors around people who are not your family or in a crowded outdoor venue.

D DeeDee Stiepan 01:07
Welcome, everyone to Mayo Clinic Q&A. I'm Deedee Stiepan sitting in for Dr. Halena Gazelka. We're recording this podcast on July 12, 2022. The BA.5 Omicron variant is now the dominant strain in the U.S. and is leading to a new wave of COVID-19 infections. Experts are concerned

because this particular variant appears to be good at evading the immune system. So, how can we stay safe during this surge? Well here to give us a COVID-19 update and answer some listener questions is Mayo Clinic virologist and vaccine expert, Dr. Greg Poland. Hey, Dr. Poland, how are you doing?

D Dr. Gregory Poland 01:43

Alright, Deedee. It's good to see you. It's been a little while.

D DeeDee Stiepan 01:45

It has. It's great to see you too. So, first off Dr. Poland, why don't you give us an update on the current state of the COVID-19 pandemic. Where are we at?

D Dr. Gregory Poland 01:55

Yeah, you know, it's not great news. And unfortunately, it sort of feels like the public is deaf to the reality of this news, but we are once again surging, and that's going to continue to happen. The best estimate is that we're not at about 100,000 cases a day, we're more like at 400 to 500,000 new cases a day. Hospitalizations have gone up about 18%. ICU admissions in the U.S. have gone up about 18%. The good news is the death rate has dropped by about 8%. So, we're fortunate that there's enough immunity generally speaking to prevent death, except in people who are unvaccinated. We're still seeing deaths in that group. And you said it exactly right. This BA.5 variant is hyper contagious, and right behind it, new variants are coming. BA5.2.1 is happening. There's a BA.2.75 that's been identified in India, and it's surging in India. So, we're going to keep, my point in mentioning it is, we will continue to generate these variants until people are masked and immunized.

D DeeDee Stiepan 03:27

And we'll get back to some of those upcoming new and upcoming variants in a minute, but you touched a little bit on BA.5. It sounds like it's very contagious. What more do we know about BA.5?

D Dr. Gregory Poland 03:42

Well, right now we don't have any evidence that it leads to a higher death rate. So, that's good. Nonetheless, among the unvaccinated with this variant, they're about five-fold more likely to get infected than people who've been vaccinated and boosted, about seven and a half times more likely to be hospitalized, and about 14 to 15 times more likely to die if they get infected. So, that's one thing. The other thing is what this BA.5 sub variant represents essentially is the evolution of this virus to be ever more contagious and to evade the immune protection that we had, either from infection, from vaccination, or from both. So, let me make a clear, clear point here that's a little tough to hear. Whether you've been vaccinated, whether you've been previously infected, whether you've been previously infected and vaccinated, you have very

little protection against BA.5 in terms of getting infected or having mild to moderate infection. You have good protection against dying, being hospitalized, or ending up on a ventilator. It's not perfect. But these viruses will continue to evolve to be able to be transmitted and infect the next person, and the next person.

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DeeDee Stiepan 05:21

So, given what you just said, right, and the transmissibility of this latest variant, were vaccinated, those of us that are vaccinated, what do we do? What else do we do to protect ourselves?

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Dr. Gregory Poland 05:33

So, I think a number of things, again, this is not what people want to hear, I understand that. There's COVID fatigue. But if you want the truth and the reality, it is be up to date on your COVID vaccines that are recommended for your age group, etc. Sometime late this summer or fall, we may well have a variant focused vaccine. Get it when it becomes available and wear a proper mask properly when you are indoors, around people who are not your family, or in a crowded outdoor venue. And when I say a proper mask with a viral variant this contagious, if I were to get on an airplane, go indoors, etc., I would wear a KN94 or an N95 mask.

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DeeDee Stiepan 06:29

At this point in the pandemic, what are the consequences of COVID-19 reinfection?

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Dr. Gregory Poland 06:36

So, a great study just came out DeeDee, the last week on this. And this is one of the things that's so hard to shake the opinion of the public. They think, well, I had a mild infection, or, you know, my sister had a mild infection, I'm not too worried about it. What they don't realize is the risk they're taking below their level of perception. So, that VA study showed that in people who had two or more infections, they had significantly increased risks of complications, about a two-fold risk of having what we call a post-acute sequelae, what's loosely called long-COVID, about a 23-fold increased risk of all-cause mortality, a 40% relative increased risk in developing diabetes. And for the next year, about 20 different cardiovascular diseases are increased in frequency, a two to 4% shrinkage of the gray matter of the brain with documentation of a six to 12% drop in cognitive ability. So, particularly young, otherwise healthy people, they don't realize this is happening. But as you accumulate these infections, this becomes a worse and worse problem or reaction. I'll just tell you about some of my patients that I've been consulted on who have developed, who otherwise were healthy, developed such fatigue, or brain fog, they can't work. I mean, that is a life-changing event that happens all for want of being vaccinated and wearing a mask.

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DeeDee Stiepan 08:33

Let's get back to what we were talking about a little earlier about your thoughts on what makes

Let's get back to what we were talking about a little earlier about your thoughts on what we're going to see next, more variants. You mentioned a couple, we're hearing about this. BA.2.75. What can you tell us about both these variants to come?

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Dr. Gregory Poland 08:48

So, what we're going to continue to see is the development of Omicron sub variants. That's what BA.2.75, that's what BA.5, BA.4, BA.5.2.1, and this will just continue. They will continue to develop all in an attempt to evade whatever immunity we have. So, we are the cause of this. I know if I go outside in Minnesota right now, I'll be one of maybe 2-3% of people that are wearing a mask. So, every time people are getting infected, the virus has the propensity and the likelihood of changing, and some people get infected with two variants at the same time. And those two variants can recombine their genetic material to produce new variants, and that just keeps happening. I mean, we're into year three now, with no decrease in the number of new variants being generated. The concern, the thing that keeps me up at night about this is that it will evade the monoclonal antibodies that we have to either prevent or treat SARS CoV-2 and maybe evade our antiviral therapy. And then we will be right back where we were in February of 2020. So, until we are responsible about managing this for our own health, and the health of our children and our neighbors, we are going to continue to face this.

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DeeDee Stiepan 10:34

That is a scary thought for sure. What about variant focused vaccines? We were talking a little bit about that. When might these variant specific or variant focused vaccines be available? And could they help protect us from some of these newest latest strains that we're hearing?

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Dr. Gregory Poland 10:51

Yeah, so you know, there hasn't been a lot published. There's been some press releases by the companies developing them, but not, you know, papers that we as physicians and scientists can rigorously evaluate. But there are two sorts of near term, variant focused vaccines that may become available. One is a bivalent vaccine, which would have the original strain and an Omicron strain in it, and the other would be a BA.4.5 variant focused vaccine. The problem is it's a little bit of the dog chasing the tail. Because we can't get everybody vaccinated, half of America rejects it, because we can't get people to wear masks, what will happen is those who take the vaccine will be well protected until a new variant develops, and then they will become, to various degrees, susceptible and we will just keep doing this. At this rate, and I've said this before, our great, great, great grandchildren will be getting Coronavirus vaccines. So, at some point, maybe people will take this more responsibly if the variant became much more virulent. I don't know. We don't have a clear answer on how you convince a skeptical public to use vaccines and masks. What I often say to them is you have to think to yourself, what is it that you know that all the doctors don't know, and then evaluate what your level of expertise is. And, you know, on this show, we have been very, very transparent about vaccines, about side-effects, about how well they work in what situations in an attempt for people to understand there is no perfect vaccine. And what we're trying to do is decrease the number of infections and decrease the health risk to every individual. That's why Mayo Clinic exists.

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DeeDee Stiepan 13:13

Yeah, absolutely. Well, let's get away from COVID for just a second. Because we discussed it last time on the podcast, do you have an update on the monkey pox outbreak?

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Dr. Gregory Poland 13:25

Yeah. And you know, for me, I sort of insist on calling it the monkey pox pandemic, because it fits the definition of a pandemic. So, in the U.S. now, we are just below 800 known confirmed cases. When we last talked on this show, we were below half that number. Globally, we're just under about 9,000 cases. So, and that represents an absolute underestimate because testing has not been great. And fortunately, fortunately this has not been as serious for some people as the classic monkey pox generally is. So, some people rather than having a body rash might have one or two lesions. And they don't even realize that it's monkey pox. And so, it never gets diagnosed, and they heal that lesion and recover. And, you know, nobody knows that for the better. So, that is certainly an underestimate, and likely we are going to continue to see this number rise, you know, almost 10,000 cases globally of a disease that for the most part never occurred outside of a few countries in Africa is a remarkable event in infectious diseases.

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DeeDee Stiepan 14:58

Yeah, absolutely. No kidding. Well, let's get into the listener mailbag for some questions.

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Dr. Gregory Poland 15:04

Sure.

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DeeDee Stiepan 15:05

This is one that I mean, I've been hearing this a lot, even from people in my own life, and the question is, if I'm eligible for a booster vaccine, should I get it now or wait for a better, more targeted booster this fall?

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Dr. Gregory Poland 15:19

Yeah, this is where again I want to be very transparent with people because, you know, it's like two sides of the scale. So, my first answer is do talk with your trusted health care provider who best knows the nuances. Because my answer would frankly be different depending on your age, your medical condition, whether you're a mask wearer, and those sorts of things. So, for somebody who is otherwise healthy, who takes this seriously and wears a mask, I would not have a problem with them saying to me, I want to hold because I know a better vaccine is coming along in literally a handful or two of weeks. I would not have a problem with that. If they had not yet received the first booster, I would urge them to get a booster. If they were elderly,

or had any of a variety of medical problems, I would say, I would get that second booster right now, and when the new one comes, we're going to give that one to you too. So, it really is very nuanced by the particulars of that individual's life and medical history.

D DeeDee Stiepan 16:35

Okay, good to know. We heard from a mother of a toddler who is deciding on vaccination for her child. And she has an important sort of three-part question. Part one, she asks, statistically the biggest risk factor for my son would be long COVID. Does vaccination make my son less likely to suffer long COVID if he does get infected?

D Dr. Gregory Poland 16:57

So, I agree with the parents that the biggest risk is probably long COVID. The best study that's been done on this was published almost two weeks ago in *Nature*, a very high-quality journal, showing that among children, that risk of long COVID is about 25%. Long COVID defined as things like mood disorders, fatigue, sleep disorders, things like that. The second risk is, in many ways, even a more serious one, and that's multi-inflammatory system disease or so-called MIS-C. That's a very serious condition that can be prevented with vaccination. So, I agree with her that COVID is a real issue. There's a tendency to think it's not an issue in kids, it is, and that immunization can definitely reduce, not eliminate, but significantly reduce the risk. In fact, if you look at a study of Italian healthcare workers, and this is a fairly recent study DeeDee, as many as 50% of them were having conditions post infection. If they got the recommended number of vaccines, the risk of long COVID was reduced from about 40-50% to 16%.

D DeeDee Stiepan 18:25

Wow.

D Dr. Gregory Poland 18:26

So, well worth it.

D DeeDee Stiepan 18:27

Yeah, absolutely. Okay, so part two of her question, what serious side-effects are most noted in children, and what should parents look out for?

D Dr. Gregory Poland 18:35

So, there's the side-effects that have been defined in clinical trials. Those are primarily pain, fever, redness, swelling, low-grade, systemic side-effects. And then there's the concern over side-effects that have not yet been seen, because large numbers particularly of infants have not yet received the vaccine and been studied. Anecdotally, we hear people, and this is all

ages, say that they may have a variety of issues like a headache, new development of an allergy, numbness, or tingling. Those don't seem to be very common, and probably the risks that many people think of with the vaccine is myocarditis. Here we have good news, because the risk of that is not increased above the baseline risks that all children face by getting the vaccine. So, we're not seeing an increase at this point in myocarditis or pericarditis in kids. So, that we should be reassured by.

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DeeDee Stiepan 19:50

Yeah, that is good news. So, would you say that the risks of side-effects from the vaccine still are less than the risks of side-effects from getting COVID infection?

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Dr. Gregory Poland 20:01

I would put it this way, because side-effects are very, very common. I mean, if you get most any vaccine, you're going to have a little bit of arm pain, maybe a low-grade fever, redness, swelling. So, that's almost certain to happen. But those are transient, they generally don't require any treatment, they resolve on their own. The risk of serious side-effects is significantly lower with the vaccine than taking your chances and getting the disease.

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DeeDee Stiepan 20:34

All right. Our last question from our listeners, there are drugs that can be taken prophylactically, meaning to prevent disease, for other infectious diseases like HIV and malaria. Do you think there will ever be a drug developed to be taken pre-exposure to reduce the risk of COVID for someone who might be in a high-risk situation?

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Dr. Gregory Poland 20:55

Yeah, that's a good, you know, our listeners are so keen and insightful on these great questions. And yes, I'm hopeful that that will happen. Let me just mention one quick study. Among standard risk patients who took Paxlovid, an oral antiviral that we use for people who are older or who are younger and immunocompromised. If they were of normal risk, the antiviral didn't offer any benefit in preventing hospitalization. There are monoclonal antibodies that we inject into people to prevent. We can use them both pre-exposure and post-exposure to prevent SARS-CoV-2. So, that may well happen, what I think it will be is post-exposure, and probably less depending on the setting of pre-exposure. But the short answer is yes, I think those will be developed. The other thing that may be developed that will make some of that antiviral development unnecessary is nasal spray and oral tablet vaccines against SARS-CoV-2. Those are being worked on, and I'm very hopeful that in the next year or two, we might see something like that. And the great advantage of that is developing antibody at the points in the body, the nose and the mouth, where the virus enters. So, that would be a great advance.

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DeeDee Stiepan 20:55

Yeah, absolutely. Very interesting. Dr. Poland, anything else that you'd like to share with us

mean, absolutely. very interesting. Dr. Poland, anything else that you'd like to share with us today?

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Dr. Gregory Poland 22:18

I really, I know that to me it sounds like I say this all the time, and I probably do. I know that people are skeptical. I know that people feel like the messaging around the world and around the U.S. has been contradictory, etc. But these are serious viruses. The risk for example of dying from or being hospitalized from SARS-CoV-2 is four to five times higher than with influenza. It is not just a flu bug. This has the real risk of causing life altering complications. Fortunately, it doesn't do it in everybody. But you don't get to pick whether that's going to happen, and the more times you're infected, the greater the risk that happens. As a physician, what I care about is keeping people healthy. And the best way, the singularly best way to do that, is to be up to date on COVID vaccines, and to wear a proper mask properly. It's not vitamins, it's not supplements, it's not home remedies, it's not ivermectin or hydroxychloroquine. It's not any of those things. Those studies have shown that they don't work. I know people strongly believe otherwise. But the science does not support that. It does support wearing a mask, and getting vaccines, and being careful. It doesn't mean we can't live our lives. You can go to the grocery store. You don't have to have your groceries delivered; you just have to wear a proper mask properly. And for those that are at highest risk, fortunately, we do have monoclonal antibodies, and we have antivirals. So talk with your healthcare provider, and get the straight scoop.

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DeeDee Stiepan 24:38

Perfectly said. Thank you so much. Our thanks to Mayo Clinic infectious disease and virology expert, Dr. Greg Poland. Thanks so much Dr. Poland.

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Dr. Gregory Poland 24:46

My pleasure. DeeDee.

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Narrator 24:47

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