OSF Physicians Answer Questions, Combat Misinformation SOUNDBITE TRANSCRIPTS

New cases of the coronavirus continue to surge across the U.S., spurred by the fast-spreading and extremely contagious Delta variant that now makes up the majority of COVID infections in the country.

As the pandemic rages on, so does misinformation about the virus, the vaccines and mitigation measures. We sat down with OSF HealthCare physicians, Jared Meeker, DO, and Douglas Kasper, MD, to address some often misunderstood or misrepresented topics.

The CDC has been changing guidelines often. Why should we trust what they say?

Dr. Douglas Kasper, OSF HealthCare Infectious Disease Physician: Guidelines are expert evaluation of the best available data at that time. With COVID-19 there is weekly data updates that are occurring. Part of this is that the clinical trial that started with for vaccine emergency use approval is reaching roughly 10 to 12 months in duration at this point, we are getting new data every week, and we continue to update off of that data. So this is an expected function of guidance, and I will look for continual refinement in the coming weeks and months to best help guide our population.

Dr. Jared Meeker, OSF HealthCare Pulmonary Critical Care Physician: I have heard a lot of commentary regarding flip flopping on certain things, and I think there is a difference between like what you would consider a maybe, in the political realm a flip flop versus the scientific process which is refining your position, maybe even completely changing your position based on more available evidence. So you may hear a scientist or a physician say this is my position based on the evidence. And then as we do more studies as we get more data, we hopefully get closer, closer to the Absolute Truth, and as we get closer to the truth. We may change our position.

How can cloth masks stop a microscopic virus?

Dr. Jared Meeker, OSF HealthCare Pulmonary Critical Care Physician: Masking is important. I think the way to look at this is that the approach to viruses in general and this particular viruses particular pandemic is a multi- layered approach. So masks by themselves are not going to keep people safe. They're not going to stop viral spread entirely, but they are going to help. So viruses are microscopic, it's true that airborne. Viruses are too small to stop by our typical cough masks. However, they do reduce the amount of droplets spread, and therefore are helpful in a multi layered approach.

Why is it important for those unable/ineligible for the vaccine to mask? What about the people masking around them?

Dr. Douglas Kasper, OSF HealthCare Infectious Disease Physician: We do have about 15% of our population falls in the age group 11 and under, and those people are not yet eligible to receive vaccination. It is likely they will be eligible for vaccination in the near future, but what we do know is that any person can come in contact with COVID-19 can become infected with COVID-19, and can spread COVID-19. And so until we have high vaccination rate offered to all age populations, we remain having to consider additional mitigation measures, including masking and distancing.

There are more and more reports of breakthrough infections in vaccinated people. Why?

Dr. Douglas Kasper, OSF HealthCare Infectious Disease Physician: Vaccine breakthrough is completely expected with COVID-19 vaccination COVID-19 vaccines which are currently under emergency use authorization by the FDA, protect against the severe effects of COVID 19 infection which include hospitalization, need for ICU stay or to end death, the vaccine does not protect against coming into contact with the virus. It does not protect against potentially being infected with the virus. What it does do is it decreases the chance that you will become infected, it decreases the length of time that a person would transmit virus to another individual, and it overwhelmingly protects against the severe outcomes of infection.

Is the vaccinated population protected from delta and other variants?

Dr. Jared Meeker, OSF HealthCare Pulmonary Critical Care Physician: The Delta variant is more infectious. There is some preliminary data to suggest that our current vaccines, probably aren't as good at completely protecting from getting infected, but they are still very effective at keeping people out of the hospital, which is the point of emphasis. So that, I think the way to look at this, is we don't want to fall into the perfect solution fallacy. We don't want to say we should have, you know, avoid vaccines because they're not perfect and what they do. They don't have to be perfect, they have to be effective and help against the multilayered approach. So if they're effective at keeping people from getting sick and ended up in the hospital, we consider that a win. And in that sense they have been a huge win.

Does vaccination work to combat a respiratory illness, even one with animal reservoirs?

Dr. Douglas Kasper, OSF HealthCare Infectious Disease Physician: So the origins of COVID-19 are unknown at this point, there are similar viruses that are seen in bat reservoirs in Southeast Asia. And so we know that viruses can infect both humans and animal intermediates. In this case, the vaccine that we are giving to humans is made for human population only, we are not worried about significant animal reservoir spread in the United States. There are studies that look at primates and other large animals to see if they can become infected with COVID-19, but this is not a significant portion of the pandemic in the United States or the world.

Dr. Jared Meeker, OSF HealthCare Pulmonary Critical Care Physician: Yes, the vaccination still works even with if there are animal reservoirs, as I said before, the way we are measuring the effectiveness of this vaccine is does it prevent people from getting critically ill does it prevent them from going to the hospital does it prevent them from dying. You know if everyone from this virus was just getting the common cold, this wouldn't be a pandemic and we really wouldn't care we wouldn't be worried, but the fact is that over 600,000 people in this country have died, and the vaccine appears to be very effective at preventing that from happening.

How does the vaccine stack up against natural immunity?

Dr. Jared Meeker, OSF HealthCare Pulmonary Critical Care Physician: We have some more emerging evidence now, for example, there was a report I think from the CDC on some data from Kentucky suggesting people that had reinfection. After natural immunity, there it was 2.5, times more likely to happen than people who had been vaccinated. So the reinfection rates seem to be higher, amongst natural immunity, people than amongst vaccinated, people. So it seems like the vaccine is doing a good job at generating a robust immune response.

How can the vaccine provide protection if this virus keeps mutating?

Dr. Douglas Kasper, OSF HealthCare Infectious Disease Physician: Part of what drives viral mutation is continued replication. And so what we're looking for with the vaccine is to not only prevent severe effects for the individual, but to also stop community wide spread and by community, we mean the United States, and world community. So what keeps future variants from occurring is by suppressing the number of cases to as low a number as possible, locally. This is done by vaccination. And during periods of outbreak adhering to public health measures internationally will require a different response. But again, vaccination provides a wealth of benefits not just to the individual but also to the community.

Can vaccinated people spread the virus?

Dr. Douglas Kasper, OSF HealthCare Infectious Disease Physician: Yes, vaccinated people can become infected with COVID-19, and they can transmit the virus however they are overwhelmingly less likely to become infected if exposed, and if they are infected, their duration of transmission is much fewer days compared to those that are unvaccinated.

What is your advice for someone who is hesitant to get the vaccine?

Dr. Jared Meeker, OSF HealthCare Pulmonary Critical Care Physician: Ultimately what it comes down to do I recommend this I tell people, if I would recommend something to my mother and my wife, then I'd recommend it to anybody. And I indeed did recommend to my mother, my wife and they're both vaccinated. I think from a numbers standpoint, you look at as a simple risk and benefit, there are risks to every decision we make, and potential benefits to every decision we make. That's kind of the key of medicine that's how my day to day job works. And when I weigh the pros and cons of this vaccine. I see more pros than cons, there are potential side effects, there are potential complications. But the side effects complications and risk of things like death of the infection are so much higher. I just I find it a pretty easy calculation to make.

For more information on the COVID-19 vaccine, including general vaccine information, answers to frequently asked questions, and even online vaccination appointments for anyone 12 and older, visit <u>osfhealthcare.org/vaccine</u>.