### Corinne Kohler, MD, FAAFP 00:00

Welcome to another episode of Beyond the Needle podcast. Today we will be talking about the continued importance of offering and encouraging COVID-19 vaccinations. We will review some of the evidence and updated research concerning COVID-19 and the vaccines. Today I am with Dr. Santina Wheat and Dr. Christina Wells. I am Dr. Corrine Kohler. Dr. Wheat, would you like to introduce yourself?

### Santina Wheat, MD, MPH, FAAFP 00:32

Hi, I'm Santina Wheat. I'm the Program Director of the Northwestern McGaw Family Medicine Residency Program in Humboldt Park, and a practicing family physician at Erie Family Health Center. How about you, Dr. Wells?

# Christina Wells, MD, MPH, FAAFP 00:44

Hi, I'm Dr. Christina Wells. I'm a practicing family medicine physician at the Mile Square Health Center, and I'm also faculty at the University of Illinois College of Medicine.

### Corinne Kohler, MD, FAAFP 00:57

And I'm Dr. Corrine Kohler. I'm currently a retired physician from a federally qualified health center, and I'm also currently a Clinical Professor at Carle Illinois College of Medicine. We'd like to start today with talking about why do we need to continue to offer COVID vaccines? What are some of its preventative benefits? Would you like to start us off Dr. Wells?

### Christina Wells, MD, MPH, FAAFP 01:23

Yes, thank you for that question Dr. Kohler. I think just as in the past when we have vaccinated for things such as measles, and polio, and other childhood illnesses, and adult illnesses, we understand that COVID-19 has some serious impacts. People can have severe illness, hospitalizations, and even death. And we see that COVID-19 is here to stay. We've seen many different variants, and so we know that it is important that we continue to protect people against this virus. Being vaccinated can help to prevent that severe illness. It can be helpful into preventing hospitalization, and it can be helpful in preventing death.

### Santina Wheat, MD, MPH, FAAFP 02:20

I think you made a really important point there, Dr. Wells. You really talked about the prevention of the severe illness and of the hospitalizations. We're not necessarily saying that the vaccines are here to prevent illness at all. So this doesn't mean that you won't be infected if you get the vaccine. And I think that's a really important thing to make sure we are continuing to tell our patients as we're recommending these vaccines every day. Because we don't want them to turn around and say, "Oh, I thought you said that this vaccine would mean that I would never get COVID," and that's really not our intent.

### Corinne Kohler, MD, FAAFP 02:55

I think there's been a preponderance of newer evidence and data that also shows that some of the severe morbidity and sequelae from COVID may be reduced with those who have been vaccinated, such as some of the anti-inflammatory benefits of the vaccine. So perhaps reduced post-COVID diabetes, perhaps reduced MIS-C in children. And while the data and evidence is still new and emerging, it does

seem to be headed in increased protection for those who have been vaccinated even when having the illness.

## Christina Wells, MD, MPH, FAAFP 03:35

I think that's a great point, Dr. Kohler. Because we know that if you get COVID-19, it's an inflammatory condition that can impact various different organ systems. So if you can help to prevent that inflammatory disease of COVID-19, or if you can allow people to have a milder form of the disease, then you can help to potentially reduce the inflammatory conditions that might arise from having COVID-19, cardiovascular disease, diabetes, MIS-C, as you mentioned, and the other sequelae of diseases that we see that result from inflammatory conditions.

### Santina Wheat, MD, MPH, FAAFP 04:25

There's even a recent study that was just released in the past couple of days from this recording. This was published in the JAMA Network Open that talks specifically about patients who were infected with COVID and their risk for diabetes afterwards. There has been ongoing evidence that COVID increases the risk of diabetes and other cardiovascular risk factors after being infected. The data really is showing that that risk of having new onset diabetes even after having the infection goes down. So this can really mean prevention for somebody for a long-term chronic disease. This can be a big deal.

### Corinne Kohler, MD, FAAFP 05:03

I believe the evidence also shows that the more times you actually have COVID infection, the higher risk for long COVID and sequelae. And while vaccine may not totally eliminate that risk, it would reduce the risk of repeat infections.

### Christina Wells, MD, MPH, FAAFP 05:21

Right. There was recently a study that was published by Cambridge University Press that stated that those who had been vaccinated with at least a single dose of either Pfizer, Moderna, AstraZeneca, or the Janssen vaccine, it was at least 29% effective at preventing long COVID.

#### 05:46

The protection was strongest, at least 35% effective, for those who were vaccinated before being infected with COVID. Post-infection vaccination also helped at least 27%. So we can see here that having the vaccine can potentially help to reduce your risk of that long COVID syndrome that we have been hearing about and the diseases that result and illness that result from having long COVID.

### Corinne Kohler, MD, FAAFP 06:20

Do you think that adding the COVID-19 vaccine to the regular vaccine schedule is going to be beneficial in our quest to continue to offer the vaccine that people see as quote, "more normal"?

# Santina Wheat, MD, MPH, FAAFP 06:36

I certainly hope so. I have certainly started talking about the COVID vaccine just sort of in the mix with all of the other standard vaccines. So when I'm reviewing my care gaps, I sit there and go, "Oh, it looks like you're due for your tetanus vaccine, and maybe you're due for your meningitis vaccine," for my population, "And maybe you're due for your hepatitis B vaccine. And, oh by the way, you're now due for your COVID booster."

### 07:05

So just sort of lumping it in with the rest of the vaccines and not making it feel other, I'm hoping that this statement of including it in the regular vaccine will help with that. I also hope that it will help with fears that I think some people have that it'll be challenging to get the COVID vaccine after the public emergency ends. And so I think just sort of incorporating into the regular schedule will just make it feel like part of our normal healthcare.

### Christina Wells, MD, MPH, FAAFP 07:36

Right, and I think too, Dr. Wheat, that COVID to us it seems like it's new, but we know that there have been different strains of coronavirus for some time. But I think as we start to make it more of a regular part of our practice, and I think too as also people start to kind of understand it maybe in the context of like the flu, then they'll be able to understand why we have so many variants, why we need a booster every year.

## 08:09

So I think that as we continue to have the conversations, as it becomes more part of our routine practice, then people can start to understand what it really is more, and more, and more, and be able to relate it to other diseases, other vaccinations that we have seen and that we have currently.

### Corinne Kohler, MD, FAAFP 08:32

I think that's a very excellent point, Dr. Wells, that while we as practitioners may understand the variability of the vaccine, and the fact that it will mutate, and that we need to continue to be vigilant. So while discussing the benefits of continuing to offer the COVID vaccines, I know there's been some recent increased evidence and data on the pregnant female population. Would you like to address that Dr. Wheat?

#### Santina Wheat, MD, MPH, FAAFP 09:05

Sure. I was really excited actually to see some of the new research about the outcomes for those who are pregnant. It had been my perception that patients who were pregnant and came into labor and delivery seemed to be more sick. They seemed to have more hypertensive diseases. And there actually was a recent article that did a review of many patients who had had COVID during the time of their pregnancy and really looking at any of the trimesters.

### 09:37

And although it didn't necessarily speak to some of the things that I was seeing, it did confirm some of the recent data that we had seen before that they were much more likely to need ICU stays. They were much more likely to need ventilation support. We've known that for a while. But also, they are much more likely to have preeclampsia and other hypertensive disorders of pregnancy, which really just has more morbidity at the time of the delivery and also has implications in the long run.

#### 10:09

Some of the things that we had talked about before like the cardiovascular risk factors. So this is a really big deal. Additionally, on the positive side though, the studies have also been shown for our pregnant patients that the vaccines are safe. So not only do we now have data about the initial doses of the COVID vaccine, but we also have data about the boosters during pregnancy.

### 10:36

Again, that data is for all three trimesters, and so we can confidently say to our patients that the vaccines are safe. We unfortunately can also confidently say to our patients that if you are to contract

COVID during your pregnancy, that you are at risk for further morbidity. And that's even if you get it in your first trimester, so it's really important to be safe throughout.

### Corinne Kohler, MD, FAAFP 11:02

And in addition to that, I think we had good evidence last year showing that women that got vaccinated passed that passive immunity on to their newborn and that it is beneficial in that initial newborn period for the infants that are not eligible for the vaccination. And we need to continue to emphasize that with our pregnant women that it's beneficial just for their health and for the health of the newborn.

### Santina Wheat, MD, MPH, FAAFP 11:32

Absolutely, and that sort of brings me on to our children as well. We know that that time before children can get vaccines, they can't get it until they're at least six months old, so that passive immunity, like you said, is wonderful for our pregnant patients. And if our patients also happen to be breastfeeding or chestfeeding, that is really beneficial. But also this reiterates the importance of the special population of children that we want them to get vaccinated as well. Some of our initial observations of COVID in children was that there weren't necessarily as many complications as we were seeing with adults.

### 12:10

And while that still might be true, further analysis has indicated that of children who contracted COVID, we are seeing more MIS-C than we had initially thought. Some of it had been under-reported based on self-report. When our researchers have gone back and looked at the claims data and looked at other things, we've really seen that COVID has impacted our children much more than we thought that it did. And so many people have sort of written off this as a benign cold when our kids get it, and so why is it so important to vaccinate the kids?

#### 12:45

But this really just highlights that we can't say whether you're going to have a benign cold or whether you're going to have a serious illness. So it's just worthwhile to use the the old adage of an ounce of prevention, it's worth a pound of cure. It just sort of prevents you from having all of those complications that you might face. And as a mom, if I can save my kid from being in the hospital, of course I would do that. So really presenting it in that way I think can be beneficial.

### Corinne Kohler, MD, FAAFP 13:14

In addition, the data has definitely shown the vaccines are safe in children. Numbers of doses, and some of the concerns and risks of vaccine-related illness has not proven, certainly not higher than other vaccines. So I think that is definitely very reassuring there, the safety of the vaccines that we now have data on that.

## Santina Wheat, MD, MPH, FAAFP 13:39

I think that's absolutely right. And I will bring back what you said before about the COVID vaccine being part of the regular vaccination schedule in a way that's similar to how the influenza vaccine is part of the regular vaccination schedule regardless of at what age you are at. Because this is the time to think about, as new children are being born now that we've been in this pandemic for a while, just because somebody doesn't have the vaccine yet doesn't necessarily mean that they're not open to it. It might be that somebody forgot to offer it to them when their child was six months old, or forgot to offer it to them at that one-year-old visit.

### 14:18

I know the person who cares for my children mentioned to me that her son hadn't gotten his COVID vaccine. Not because she wasn't open to it. She got it when she was pregnant with him, and is around me, and sees me getting my children vaccinated, and knows that I wouldn't recommend anything for her that I wouldn't recommend for my own family. But she mentioned to me that nobody offered it to her. And it's not as easy to get it for some of the little kids as it is at like the pharmacy or other things as it is for adults and older children.

### Corinne Kohler, MD, FAAFP 14:46

I think some of us have, just to a certain extent, been so ingrained in our vaccine schedule, and when it changes it can be hard to sometimes integrate that change. What I think has been very beneficial is when they came out with the change that said your third hepatitis B has to be on or after six months. That actually has been a benefit.

### (15:11

Because before that we were sometimes giving that third set of vaccines at somewhere between the five to six months, and COVID can't be given before that six months. And when they came out with that, we're seeing those infants at or above their six-month milestone, and so I think it's easier in our mindset to actually add the COVID-19 vaccine.

## Christina Wells, MD, MPH, FAAFP 15:35

Right, and I was also going to add along too that I think that it's important for us to remember that how someone feels today may be different than how they feel tomorrow. And we know that there has been some vaccine hesitancy. And so I think that it's important that we always keep those conversations going.

### (15:58

And that as new data is arising, which is why we're having this conversation today, we should be continually providing that information to our patients, keeping those conversations going so that they can understand all the data that is present. We can be a source of true information in the midst of all the misinformation that may be out there and be able to be a place and a good resource for patients to be able to get reliable information about vaccines and their importance.

### Santina Wheat, MD, MPH, FAAFP 16:36

I think that's a great point, Dr. Wells. I will remind us all that there was a group of early adopters that were like, "Yes, I will get that vaccine right away no matter what." There was a group of folks that were like, "No, I'm not going to get this vaccine. It's too new. I want nothing to do with it." And then there was a group of, "I'm going to wait and see how this impacts your body."

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I think that there's the potential for wiggle in both of those later two groups because we have the evidence to say to the folks who were initially the nos, "We have evidence now in lots of stages, and lots of different ages that this vaccine is beneficial and not harmful." And for that group that wanted to wait for the early adopters to sort of go through their time, we can have evidence to share with them too.

## (17:24

So using those motivational interview skills that we talk about all of the time, and people's stages of change, is really important for thinking about those patients who don't have the vaccine yet or maybe

have their initial theories of the vaccine and haven't gotten their boosters yet, when you're having these conversations.

### Corinne Kohler, MD, FAAFP 17:42

I think it also brings up the point of making sure people completing their vaccine series. Sometimes you've gone through that hesitancy and now they've started their vaccine, but we need to make sure they're completing their vaccine series, hopefully getting their boosters and ongoing that they will continue to get their yearly vaccine also.

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So one of the things that I had seen recently also from CDC was talking about some of the higher risk for severe COVID-19 and how that might be affecting our patients. And I think going forward, as we said, those with vaccine tend to have less risk for severe complications in different areas. So have you seen in your own practice evidence between those who have had the vaccine versus those who have not but yet still end up testing positive?

## Santina Wheat, MD, MPH, FAAFP 18:46

I think that most of us could probably say that we've seen differences particularly amongst those who are high risk of the complications that occur when somebody has been vaccinated or not. My patient story that I can share is, I have a patient who meets all of the complex risk factors. He is a person who's living with HIV, he has diabetes, he is obese, he has multiple chronic conditions that make him at risk.

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I mean, he recently had COVID, but he'd had all of his vaccines and his booster. And he said, "Oh, it wasn't so bad. I'm so thankful that I had the vaccine," and so it was a win. It goes back to what Dr. Wells was talking about before of he was really able to not get those severe complications. He didn't end up in the hospital but was at risk for doing so.

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So I think that the list that's on the CDC website of all of the people who are at high risk, when they are vaccinated I am seeing much better outcomes than those who aren't. I'm fortunate to say that I have a large population that is vaccinated. So I think I was seeing less of the really bad side effects, at least once vaccines were available.

### Corinne Kohler, MD, FAAFP 20:02

I think as we all deal with different patient populations in our practice, that it is important to remember maybe some of those outliers on the higher risk groups and not to forget while we all are aware of things like age, and race, and ethnicity, and socioeconomic group, and how those different disparities have definitely impacted COVID-19, that there are some other risk factors for complications.

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And again, as you mentioned, Dr. Wheat, there was a great list on the CDC underlying medical conditions associated with higher risk. And not only, as you said, the things that we all think of like cancer, and chronic lung, and diabetes, but also things like obesity, poor nutrition, and one that's struck me with some of the mental health conditions, including the mood disorders, that also puts you at higher risk for complications, physical inactivity. That is also one on there. And for some medications like chronic steroid use that many may not think of. Have you had very much impact with that, either of you, with your populations?

#### Christina Wells, MD, MPH, FAAFP 21:21

I wouldn't say that. I think that I've had not exactly the same experience as Dr. Wheat. But I will say that for my patients with chronic disease who have been vaccinated, that they have had less severe illnesses. Most of those patients that I've had have not had to be hospitalized and have been able to be managed in the outpatient setting.

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What I would say though is that this should just be a reminder to all of us that we need to be thinking about our patients who have chronic illnesses, and mental health being one of those things, and thinking about how their chronic illnesses impact their health overall, and how if they were to acquire COVID-19, that would cause even more morbidity in terms of their chronic illnesses. So really having those conversations with those patients and advising them of their increased risk, and then also letting them know of the benefits of being vaccinated against COVID-19.

### Santina Wheat, MD, MPH, FAAFP 22:44

I really agree with that, Dr. Wells. I think that really looking ... As we are wonderful at doing that as family doctors, looking at the whole person, thinking about their health as not just one piece, but looking at what are all of the things that are coming together, what is their living situation like, what are all of the pieces that impact their life? And this is just one of those that can be incorporated into that full picture.

# Corinne Kohler, MD, FAAFP 23:10

I think we are all in agreement that we should be continuing to offer the COVID-19 vaccine. I think we'll continue to see more data and more evidence coming out as to the benefit of those that have been vaccinated versus incomplete or non-vaccinated. Would you like to offer any other words of wisdom to those listening to the podcast as to maybe why they should continue to offer the vaccines and promote them in their practice? Dr. Wells?

# Christina Wells, MD, MPH, FAAFP 23:45

Yeah. I think I will say that we have over the last three years seen the devastation that has resulted from COVID-19. It has forever changed our lives. And as we think about how do we impact people, how do we help keep people healthy, I think that we think about offering COVID-19 vaccines as one of our tools, and the importance that we continue to keep this on the forefront and help people to understand it's ongoing impact in our lives and the ongoing importance of vaccination.

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And then again, as Dr. Wheat said, thinking about it in the totality of people and their overall health, letting them know that vaccination is very, very important. It is one of our tools in helping our patients to remain healthy. And that as we think about their overall health, their physical activity, what they're eating, what their lifestyles are like, helping them to be able to have a holistic approach, to be able to be in the best possible health as they can be, helping them to prevent severe illnesses, hospitalizations, and ultimately death, and thinking about COVID-19 vaccination as a part of that process.

Corinne Kohler, MD, FAAFP 25:13

I think that was so well said, Dr. Wells. Dr. Wheat?

Santina Wheat, MD, MPH, FAAFP 25:16

Wow. That is tough to follow. I'll add the non-patient specific focus as a reminder that we do also have the evidence that says that the COVID vaccine has not only been very impactful for individuals, but it's also been very impactful for our system. And so it's a great argument that you can use for your health care system if they are considering not offering the COVID vaccine anymore, of not holding it in stock, or thinking that maybe they will get it when they haven't gotten it yet.

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The vaccine has prevented so many hospitalizations. It has prevented so many morbidities and so many deaths that it really has impacted our system in so many ways. So by continuing to provide vaccines for our patients, we are saving our system and we are saving the experiences for all of those who are in the hospital working with our patients. We're providing a better space for everyone.

## Corinne Kohler, MD, FAAFP 26:22

Again, very well said. I would also like to add that, as healthcare providers we need to remember that we also need to participate and have our vaccines, and be role models, and leaders, and strong advocates, not only for our patients, but with our healthcare systems, public health systems, and as you said, the population impact of not only COVID itself, but the ongoing sequelae, and the fact that the vaccines can definitely have an impact. I'd like to thank everyone who tuned in today and listened, and continue to look for further evidence of Beyond the Needle. Have a great rest of your day.