Importance of COVID vaccine during pregnancy & breast feeding

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Speakers

- Linda Eckert, MD, professor, Department of Obstetrics & Gynecology, University of Washington
- Flor Muñoz-Rivas, MD, associate professor, pediatrics & infectious diseases, Baylor College of Medicine

Transcript
Unger: Hello, this is the American Medical Association's COVID-19 update. Today, we're talking about COVID vaccine guidance for pregnant and lactating individuals. I'm joined today by Dr. Flor Muñoz, associate professor of pediatrics and infectious diseases at the Baylor College of Medicine in Houston, and a fellow of the American Academy of Pediatrics. And Dr. Linda O'Neill Eckert, a professor in the women's health division of the Department of Obstetrics and Gynecology at the University of Washington. Dr. Eckert is one of the authors on the American College of Obstetricians and Gynecologists, or ACOG's, COVID-19 Vaccination Guidance. I'm Todd Unger, AMA's chief experience officer in Chicago. Many pregnant individuals are calling their doctors like the rest of us with questions about getting vaccinated. Dr. Eckert, what is ACOG's guidance for pregnant individuals and the COVID vaccine?

Dr. Eckert: Well, thank you very much for the opportunity to speak to this important question. And I think the bottom line here is that pregnant individuals should have a choice to get vaccinated. There are conditions that are important for pregnant women to consider or pregnant individuals such as, what is their background risk based on their exposure to COVID in their community or in their workplace? Can they stay at home and protect themselves? What are their underlying risk factors? All of these are important considerations, and we think that the pregnant individual should have an opportunity to consider these considerations for herself, her baby and make a decision accordingly.

Unger: So talk to me about, how do you have a conversation with a patient about this?

Dr. Eckert: So typically what I do is first ask them questions. What are they thinking? What have they heard? What information would be helpful? I want them to be sure and understand that COVID, when you acquire it in pregnancy, is more dangerous to them and their baby than if they were non-pregnant. And I want to ask them what they know about the safety and what they've heard about it, and try to answer any of the questions. And I would say that I am a person that encourages people to consider the vaccination, because I'm very impressed with the danger of COVID to pregnant women.

Unger: I think that's an important thing to talk about a little bit. When you think about that danger, can you give some context to that?

Dr. Eckert: Yes. So there's been several studies now that have shown that when pregnant individuals contract COVID, they're more likely to be hospitalized. They're more likely to end up in the intensive care unit. They're more likely to have intubation or airway assistance needed for breathing and even death. And a healthy mom equals a healthy baby, and so all of these factors that hurt the health of the mom also, of course, potentially hurt the health of the baby.

Unger: So that is an important, obviously, consideration. When we look at the data that we have now, it's very early in this vaccination process, what are we seeing?

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Dr. Eckert: So far, what we have is animal data that the two vaccines that are used in the United States have conducted. And in the animal data, they did not see any untoward effects of the vaccine on the fetuses in utero in the animals. We have the biologic possibility of the vaccines and how they work, and we don't feel like there's an increased risk or need to be particularly worried about how that will impact the pregnant mother or the fetus. And there were a handful of people that became pregnant after vaccination or shortly thereafter that are being followed. The big phase three trials in pregnant women have not yet been started. We heard Dr. Fauci say last week that of the 10,000 people or so, 15,000, pregnant women who've been vaccinated and they're being tracked through V-safe by CDC, we haven't seen any untoward effects, but we haven't seen definitive data on those women as of this time.

Unger: I think his quote was, "Thus far, no red flags." Is that the right thing?

Dr. Eckert: Thus far, no red flags. And certainly, we'll be filling that in, in the near future I feel.

Unger: Okay. Dr. Muñoz, let's turn to patients who are breast feeding. Are vaccines recommended for this group? And what is the AAP saying in this area?

Dr. Muñoz-Rivas: Yes, there's no problem with receiving a COVID vaccine in women who are breast feeding their babies. The concerns in pregnancy, if any, are not the same certainly for a breast feeding woman. In this case, the theoretical possibility of any of the vaccine antigen or components being in the breast milk is very, very low. And clearly the benefit of breast feeding is humongous. It's a very, very high benefit for the baby compared to the very minimal, if any, risk of the mother receiving the vaccine during lactation.

Unger: And just like we talked about with women who are pregnant, we have to take into account the issues and the effects of COVID-19 on infants and young children. Can you talk about the guidance that you give folks in that regard?

Dr. Muñoz-Rivas: Surely. There's still information that is coming along. We know, for example, that if a mom gets COVID during pregnancy, there's really no evidence that there could be a vertical transmission, so a congenital infection that was acquired in utero. That is a good thing. The placenta is doing its job, it's protecting that baby. However, we have had babies, very young infants, that have acquired COVID after delivery. And this will be usually exposure to so one in their home, sometimes the mother herself or other caretakers. And infants who are born to mothers who have not had COVID themselves or have been vaccinated, really don't have any protection from the mom. They have not received any passive antibody from the mother, and they would be potentially at risk of having the more severe COVID disease. We know that being under a year of age is one of the risk factors for hospitalization with COVID, and that has to do with the type of illness that these babies can have sometimes with fever illness that needs to be evaluated because they could have other infections.
Sometimes because they do have pneumonia like adults do.

**Unger:** As if there’s not enough to worry about with a newborn. That is a really challenging thing to think. The mRNA technology that’s used for both of these authorized COVID vaccines is relatively new. Dr. Eckert, what should physicians tell patients who have safety concerns about this technology?

**Dr. Eckert:** Well, I think they should be honest and say it is a relatively new technology, but from what we understand about how it works, there are certain common perceptions or misperceptions that can easily be spoken to. One thing I often hear is, do I have to worry about the DNA mixing with my DNA or my baby’s DNA? And that isn’t possible with how this vaccine works. That is not a concern. And so we aren’t really worried about DNA mixing. We also feel like the effect is pretty local. It goes right into the local lymph nodes and it works there by helping the body create their own spike protein protection, and then you develop protection against that spike protein. And so we have some, I guess, general biologic plausibility that we speak to, and we really don't feel like there is a reason to have increased worries about it. Although, of course, we would all like more data.

**Unger:** Dr. Muñoz, is there any special messaging that you use in regard to the type of vaccine?

**Dr. Muñoz-Rivas:** So I think that I like to put this in the context of the pandemic. So the reason we are promoting and asking women to consider to be vaccinated is because there is a very aggressive pandemic out there of the virus that has a high transmission rate that can make women sick. And in that context, having the safety information that we already have from the adult studies in non-pregnant people and having the ability to collect safety information as women are receiving the vaccine during pregnancy, specifically through the CDC system and through other methods of data collection that allows us to continue to ascertain the safety of the vaccine. So I think that this should be where we need to make sure that we continue to update ourselves, update pregnant women, about what we know. And so far, the data is very reassuring regarding the safety of the vaccine.

**Unger:** Excellent. Dr. Eckert, we've heard stories of younger people, even health care workers, delaying vaccination, because they’re thinking of becoming pregnant soon. Do you have any special messaging there?

**Dr. Eckert:** Yeah. I think that we really want people to encourage getting the COVID vaccination and we don't feel like there is a risk for fertility. We feel like the vaccine, again, like I spoke to, doesn't interfere with DNA, doesn't get into the eggs in any way. And so we don't feel like there is a reason to delay and we would encourage people to get the COVID vaccine as soon as they are eligible in the phase of the vaccine rollout.

**Unger:** Especially, I mean, there are, as you pointed out, significant downsides to not getting that.
Dr. Eckert: Right.

Unger: Is that a thing you also communicate as well?

Dr. Eckert: Absolutely. I mean, as Dr. Muñoz spoke to so well, this is an aggressive pandemic and it's not abating in the near future, and they should really consider protecting themselves and remembering that a healthy mom equals a healthy baby.

Unger: Well, along those lines, Dr. Muñoz, some individuals might want to stop or consider weaning sooner to get vaccinated without additional concerns for their babies. What are the factors to consider there?

Dr. Muñoz-Rivas: The factors to consider relate to the benefits of breast feeding for the baby nutrition, for the baby immune system development, and also for the bonding and the relationship between the mother and the baby. So those are very important, and the potential concerns for any effect of being vaccinated and having any effect on the baby through the breast milk are really not an issue at this point. And we have a number of other examples of vaccines that are given to postpartum women, including live vaccines, when we want to protect them, for example, against rubella, which is a live vaccine, yet we continue to encourage breast feeding. Again, the issue here is the balance between risk and benefit, and the benefit is what we need to think about with no evidence of risk so far.

Unger: Excellent. Well, I have a series of practical questions. We're getting a number of questions from physicians about these scenarios. So Dr. Eckert, let me start with you. If someone gets pregnant around the time or just after their first COVID vaccine, should they have a second shot scheduled?

Dr. Eckert: Yes, they should. They should go ahead and complete the series for reasons that we spoke to earlier. We don't see any real concerns about that. Being protected against COVID is quite important and they should complete the series of scheduled.

Unger: All right. Dr. Muñoz, do infants need to do the 14-day vaccine wait with regards to well-child vaccines from the day the mom gets vaccinated against COVID?

Dr. Muñoz-Rivas: No. There is no need for that. The reason for the 14-day interval between a COVID vaccine and any other vaccine is mostly because the clinical studies that have been done do take that interval as a differentiation to try to differentiate any side effects that could occur from other vaccines compared to the COVID vaccine. There's also no data to suggest that when the mother gets vaccinated there is an effect on the infant's vaccines in terms of breast feeding, for example, or any other vaccination or ability of the babies to respond to the vaccines.
Unger: All right. Dr. Eckert, is there any evidence that one vaccine may be better than another for pregnant and breast feeding individuals?

Dr. Eckert: Not with the two vaccines that we have approved. And I think, as information becomes more public and we learn more about future vaccines, then we can potentially re-ask that question. But at this point, we have no preference. We just say, "When your opportunity comes, please consider becoming vaccinated."

Unger: All right. Dr. Muñoz, you mentioned side effects. Are there any specific concerns that physicians should raise to their pregnant or lactating patients?

Dr. Muñoz-Rivas: So the vaccines, like any other vaccine, can have expected side effects, so to speak. This would be injection site pain or injection site reactions. Sometimes we can have a bit of swelling, a bit of redness around the site of injection. That is expected. There could be, as our immune system responds to the vaccine as well, other what we call systemic symptoms. So fever, maybe a headache, maybe not feeling well for a couple of days. These are reactions that are expected after a vaccination. The COVID vaccines that we have available right now are maybe a little bit more reactogenic than the flu vaccine, for example, but they're not the most reactogenic vaccines that we have used in people. And we know that these are transient, so they only last a few hours or a couple of days. They are self-limited. They go away on their own. They don't cause any permanent injury or damage. And we also know that they mean that our immune system is doing its job. It's responding to the vaccine giving us protection against the virus.

Unger: Excellent. Dr. Eckert, any specific advice that you give to pregnant patients?

Dr. Eckert: I do tell them that if they develop a fever or aches and pains, they should feel comfortable taking Tylenol. We know Tylenol or acetaminophen is quite safe during pregnancy, and they can feel free to use that.

Unger: All right. We're seeing larger and larger groups being vaccinated right now. Do we see any timeline given for when to expect new data on pregnant and breast feeding individuals, or a timeline on vaccinating kids under age 16 against COVID? Dr. Eckert?

Dr. Eckert: So I think as far as the timeline on the pregnant women and the data, there are registries that are up and going. CDC has this V-safe application that they encourage everybody who gets vaccinated to join, and I think that's a powerful tool that will be able to give us a data fairly soon. There's other registries that are currently ongoing. I know the University of Washington where I work has one, and it has 25,000 people in it so far. And so I think in the next short term, I would say one to two months, we should at least see how the side effects in pregnant women compared to side effects in non-pregnant individuals. It will take longer to see outcomes in babies because those pregnancies
have to go forward and we have to look at the babies to see how the babies do.

**Unger:** Dr. Muñoz, any thoughts on that?

**Dr. Muñoz-Rivas:** Of course. What I would add is that a lot of these registries and surveillance systems are really focused on looking at the safety of the vaccines. And so it is important, as we have said, to understand better the safety of the vaccine and the women, but also in their babies. And, again, this information will continue to help us guide the decision-making that women are having to do and providers have to do. But I would add that an additional component that is very important is the fact that we know that by protecting moms, we could also be protecting babies. This is a natural process. This is why we vaccinate women against the flu when they’re pregnant or against the whooping cough, because we know that, that protection, those antibodies, pass to the baby and they can be safe and not infected from these diseases as long as those antibodies are present.

So that is another important piece that we are hoping to get more information on, which is we don't have vaccines for babies under six months right now. And one way to protect those babies is when mothers are vaccinated themselves and pass that protection to their baby. So this will be very good information, and I think that as we have the safety studies going, there's also observational studies in place or being put in place that will be looking precisely at this durability of the antibody, the transfer of the antibody from vaccination with different vaccine types, and also how much the babies can be benefiting from that protection in the first few months of life.

**Unger:** That's really important. Well, last question for both of you. We've seen a number of different articles about individuals who are pregnant or breast feeding who decided to get vaccinated only to get denied when they show up. What should people do if this happens to them? And what's the message to those who are imposing these restrictions? Dr. Muñoz, why don't you start?

**Dr. Muñoz-Rivas:** Of course. Thank you. So I think this is a reflection of that communication about why these recommendations are in place and what we know about these vaccines, again, in the context of the pandemic. So having these conversations not just with the public but also with providers and those who will be able to have access to the vaccine for their employees and for the patients is going to be very important. I think that we also need to keep in mind the difference that we have right now between the availability of the vaccine and the demand of the vaccine, how many people we need to vaccinate, and we just don't have enough doses, or they're not coming in a time where we can give it to everybody at once. So I think it's important to continue to be informed, to continue to try to be in the line for the vaccine, and if you are given the opportunity to get the vaccine to go ahead and receive it. Because, at this time, it is really a priority to continue to cover those high risk groups and pregnant women are included in that high risk group.
Unger: Excellent. Dr. Eckert, ACOG and the CDC have really specific guidance here. Can you talk about that, and what particular advice you give here?

Dr. Eckert: Yeah. ACOG and CDC feel very strongly that ethically pregnant women should be offered the vaccine and should be offered a choice. And so for a decision to be made not to vaccinate them without their being involved in that decision isn't something that ACOG or CDC supports at this time. And so if that happens to a pregnant individual, which I have read those stories too, I think it's important to contact your local health department. I think there's online information with CDC, Society for Maternal Fetal Medicine, ACOG, coming out very strongly saying that this is not anything that they recommend, they don't consider this ethically sound, and that pregnant women really should maintain their autonomy to make their own choice.

Unger: Well, thank you so much, Dr. Eckert and Dr. Muñoz, for being here. I'm sure that those who are pregnant or breast feeding have a lot of questions and this really helped to clarify some of those answers. I appreciate you being here. That's it for today's COVID-19 Update. We'll be back soon with another segment. In the meantime, for updated resources on COVID-19 visit ama-assn.org/COVID-19. Thanks for joining us and please take care.

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