

Zika Virus: Implications for Family Planning

June 29, 2016

Linda DeSantis:

The CAPTC, under contract and along with the California Department of Healthcare Services Office of Family Planning, are sponsoring this event. You should have received instructions, along with a link to the webinar regarding our Adobe system, which utilizes audio for the presenters only. The presenters include our guest speaker, Dominika Seidman, members of the Office of Family Planning, and the staff here at the CAPTC. In the lower right-hand corner of your screen, there is a chat box that we hope you will utilize to ask questions or provide comments. We ask that you turn on your computer speakers to hear us and mute your computer microphone to avoid any feedback. The webinar will be approximately one hour. We will be saving time at the end for questions and answers. After the webinar, you will be sent an evaluation via SurveyMonkey. It will be sent to the email you used for registration. Please look for it and take a few moments to fill it out. This webinar is eligible for one AMA PRA category one credit. The recorded version of this webinar will be available in the next several weeks and can be found on the Office of Family Planning website as well as on the California Prevention Training Center website. Today's webinar will be delivered by Dr. Dominika Seidman. Dominika Seidman is an OB/GYN and Family Planning fellow at UCSF. She previously completed a reproductive infectious disease fellowship, and her research is on topics at the intersection of family planning and sexually transmitted infections. Welcome, Dr. Seidman.

Dr. Dominika Seidman:

Thank you, Linda. And thank you very much for the opportunity to talk with everyone today about Zika virus, implications for family planning. I have nothing to disclose.

Dr. Dominika Seidman:

So, over the next 40 minutes or so, we're going to review Zika transmission, epidemiology, and implications for family planning. We're then going to use principles of shared decision-making, which are familiar to many family planning providers, but we will review as well today, to counsel women at risk of Zika about family planning options. And finally, at the end, we'll talk about Zika resources that are available to family planning clinicians.

Dr. Dominika Seidman:

Zika virus is a single strand RNA virus in the Flavivirus family. Other viruses in this family that you might be familiar with include Yellow Fever, Dengue, West Nile, and Japanese Encephalitis. Zika virus was first discovered in 1947 and it's named after the Zika forest in Uganda. In 1952, the first human case of Zika was detected and since then, outbreaks of Zika have been reported in Africa, Southeast Asia, and the Pacific Islands. Before 2007, only about a dozen or so Zika cases were documented but because the symptoms of Zika are so similar to many other diseases, many other cases probably were not recognized. The first case of Zika in Brazil was reported by the Pan American Health Organization in May of 2015. And an uptick of microcephaly in Brazil was noted in October of 2015. On February 1st of 2016, the World Health Organization declared Zika virus a public health emergency of international concern.

Dr. Dominika Seidman:

Zika is transmitted primarily through the bites of two types of infected *Aedes* mosquitoes. These are the same mosquitoes that spread Yellow Fever, Dengue, and Chikungunya viruses. These mosquitoes typically lay eggs in standing water in things like buckets, bowls, animal dishes, flowerpots, vases. These mosquitoes prefer to bite people and primarily bite during the day. Mosquitoes become infected when they feed on a person who is already infected with the virus. And then those infected mosquitoes can spread the virus to other people through bites. Sexual transmission of Zika has also been reported specifically from a man to his sex partners. Transmission has been documented from men to both man and woman through vaginal and anal sex. There is one reported case of a possible transmission from a man to a woman during penile oral sex. But to date, we don't know, but we do suspect, that Zika virus can be transmitted through oral sex. In the known cases so far, all men had Zika virus symptoms. However, we believe that transmission can occur both before and after symptoms. The virus seems to linger in semen longer than in the blood, and infectious virus has been detected in semen at least two weeks after the onset of symptoms. And in one reported case, two months after symptoms. We know that condoms can reduce sexual transmission of Zika as can, obviously, abstinence. Zika has been detected in saliva, but there have been no reported cases to date from things like kissing. Vertical transmission of Zika, or transmission from a mother to her fetus during pregnancy, is what has sparked a lot of interest and concern worldwide about Zika virus. A pregnant woman can pass Zika virus to her fetus during pregnancy, and we'll talk about the consequences of in utero transmission in a few minutes. To date, there are no reports of infants getting Zika through breastfeeding. Although we have found Zika virus in breast milk. Because of the benefits of breastfeeding, however, mothers are still encouraged to breastfeed, even in areas where Zika virus is prevalent. Finally, while there haven't been any confirmed cases of blood transfusion transmission in the United States, there have been multiple reports of blood transfusion transmissions in Brazil.

Dr. Dominika Seidman:

This is a map of active Zika transmission areas around the world. Models that were developed by the World Health Organization predicts that three to four million people across North America, Central America, South America, and the Caribbean will contract Zika virus infection through early 2017. You'll note on this map that to date, there have been no locally acquired mosquito-borne cases reported in the United States. However, there have been over 800 travel-associated cases reported and over 10 sexually transmitted cases reported in the U.S.

Dr. Dominika Seidman:

So far in California, Zika virus infection has been documented only in people who are infected while traveling outside of the U.S., or through sexual contact with an infected traveler. So far in California, there have been about 50 travel-associated cases. To date, there haven't been any locally mosquito-borne transmissions of Zika virus reported. However, the mosquitoes capable of carrying Zika live in California counties, as shown on this map, demonstrating the potential for mosquito-borne transmission here.

Dr. Dominika Seidman:

So, to recap, who is at risk of Zika virus infection? Simply, it's anyone who's living in an area with local transmission, anyone who travels to areas with local transmission, or the sexual partners of either of the above.

Dr. Dominika Seidman:

Zika prevention focuses on mosquito bite prevention including things that we all know about, like wearing long-sleeved shirts and pants when outdoors, using air conditioning and screens for windows and doors, using bed nets if screens aren't available, using EPA-approved mosquito repellent with known active ingredients, which are safe in pregnancy, treating clothing with permethrin, eliminating standing water around home and workplaces, and finally, for sexual transmission, using condoms to prevent sexual transmission, or abstinence.

Dr. Dominika Seidman:

We're going to transition now to talk about the clinical features of Zika. The incubation period for Zika virus disease is likely roughly three to 14 days, but most cases occur within a week after exposure. After symptoms onset, the duration of Zika viremia in the blood may range from a few days to a little more than a week. Only about one in five people infected with Zika will be symptomatic. The most common symptoms of Zika are fever, rash, as you can see on the bottom of your slide on the person's face, and that rash can be on the trunk or limbs as well, joint pain, conjunctivitis, and again, there's a picture of the conjunctivitis on the lower right-hand side of your screen, and then additional symptoms can include headache or muscle pain. The illness is usually mild, with symptoms lasting for several days to a week after being bitten by an infected mosquito. People usually don't get sick enough to seek care. However, Zika has also been associated with Guillain-Barre syndrome, in which the immune system attacks the peripheral nervous system. Guillain-Barre classically presents as a symmetric ascending paralysis or paresthesia. Symptoms typically last several weeks, and usually completely resolve, although the syndrome can rarely be fatal. The frequency of Zika leading to Guillain-Barre is unknown, but it's thought to be quite rare. However, countries with Zika virus transmission have reported increases in the number of Guillain-Barre cases.

Dr. Dominika Seidman:

Diagnosis of Zika can be made through a few different methods. Within a week of symptoms, serum PCR can detect Zika virus. And within three weeks of symptoms, urine PCR can be used to diagnose Zika virus. Just to note, if you read the CDC website, they state that they'll accept urine samples up to only two weeks after symptoms, but I confirmed with the California DPH that they are using more recent data out of Florida, demonstrating that urine PCR can detect Zika virus up to three weeks after symptoms. If you send urine for testing, it always must be accompanied by a serum sample. Antibody testing can also aid in Zika diagnosis. IgM antibodies develop one to two weeks after symptoms and are present for up to 12 weeks. However, these IgM antibodies cross-react with other viruses. Consequently, plaque reduction neutralization can be performed to tell the difference between cross-reacting antibodies from different Flaviviruses. There is currently no IgG testing for Zika. It's important to note that negative testing using any of these tests does not definitively rule out Zika. If testing is negative and there's a high suspicion for infection, repeat testing as indicated, usually with the assistance of the Department of Public Health.

Dr. Dominika Seidman:

Zika testing in California requires the Department of Public Health approval. PCR is performed only for symptomatic cases and that's really important to note, and urine is the preferred method. PCR can also be performed on other bodily fluids but requires the Department of Public Health approval in advance. The Department of Public Health will perform testing only on asymptomatic patients who are pregnant. For these women, serum antibody testing should be performed two to 12 weeks after their last

exposure. As we just discussed, a negative serology test obtained two to 12 weeks after exposure cannot definitively rule out Zika virus infection. And if there's a high suspicion, repeat antibody testing should be performed. You may be wondering, what about women who are trying to conceive who are not yet pregnant? Testing for these women, according to the CDC, follows testing guidelines for non-pregnant women, meaning that preconception patients should only be tested if they are symptomatic. In addition, for male partners of women wishing to conceive, they should also only be tested if symptomatic. There's also no commercially available testing for Zika virus in sperm. The website on the bottom of your screen, and also available at the end of this talk, provides more information about testing specifically in California. State labs report cases to the CDC, but health care providers are encouraged to report any suspected cases of Zika to their local health departments.

Dr. Dominika Seidman:

There's no specific treatment for Zika, and really treating it relies on supportive care with hydration and Tylenol. Providers are encouraged to tell patients to avoid NSAIDs until Dengue is ruled out, due to potential hemorrhagic complications.

Dr. Dominika Seidman:

Zika affects fetuses in a variety of ways. But as an overview, early exposures generally lead to more profound anomalies, like microcephaly as depicted here, and other brain and eye abnormalities. Zika later in pregnancy has been associated with growth restriction and fetal death. There has been over 1000 confirmed cases of Zika affected babies in Brazil, and only three in the United States to date.

Dr. Dominika Seidman:

We're now going to dive into some of the data on Zika in pregnancy. What's most important to take away is that the data is quite limited. Data are quite limited, and information is changing rapidly. The earliest study we have on Zika in pregnancy was a retrospective analysis of the 2013 to 2014 Zika outbreak in French Polynesia. Researchers identified eight fetuses and infants with microcephaly. Using modeling, it was estimated that microcephaly affected approximately 1% of fetuses or infants born to women infected with Zika virus during the first trimester in pregnancy. This is the best clinical data we have to date on first trimester exposures. Again, with 1% of confirmed cases of Zika during the first trimester of pregnancy being associated with microcephaly. The next major study is from Brazil. Among 42 women, again with laboratory confirmed Zika virus infections, importantly in this study at any time during pregnancy, these women underwent prenatal ultrasound and 29% were found to have abnormal findings. Those findings included microcephaly, intracranial calcifications, other brain abnormalities, abnormal cerebral artery blood flow, intrauterine growth restriction, and fetal death. This is the upper limit of the proportion of affected fetuses reported in the context of the Zika exposure to be affected. And it's important to note that this was only based on ultrasonographic diagnosis. These findings may or may not have been confirmed after delivery. So, when counseling patients, I think it's reasonable to provide a range of the estimates of the proportion of fetuses that will be affected in the setting of a known exposure, ranging from one to up to 29%, with the caveat that 29% is likely an overestimate. The last major study that we're going to discuss is out of Columbia. They reported on 1,850 women, again with confirmed Zika infection during pregnancy. Over 600 of these women were infected in the third trimester, and to date, 500 of these women have delivered. In those 500 women, there have been no cases of apparent anomalies related to Zika. The researchers concluded that third trimester exposure was not associated with structural anomalies, but it is unknown if there are longer term consequences of Zika virus infection during pregnancy for babies and children. Also, from the same study, there were

four reported cases of microcephaly in women who were asymptomatic during pregnancy. In these babies, after they were born and found to have microcephaly, Zika virus was detected in the placenta. This report confirms that vertical transmission can occur, even in asymptomatic women.

Dr. Dominika Seidman:

Based on these data that we've discussed, the CDC made recommendations for couples interested in conceiving. What's important to note on this slide, when you look at the table, is that Zika virus disease is defined both as definitive diagnosis with laboratory findings or simply exposure with symptoms. So, to walk through the table, you'll note for travelers who are women, if they have known Zika virus disease, women are recommended to wait at least eight weeks after the onset of symptoms and their male partners are recommended to wait at least six months after symptoms onset. Again, related to the fact that we know that Zika virus seems to linger in sperm longer than in the serum. For female travelers who don't have evidence of Zika virus disease, women are recommended to wait at least eight weeks after the last date of their exposure. And similarly, male partners are recommended to do the same. For women who live in an area with known Zika virus transmission, the counseling is a little bit more complicated. For those who are known to have Zika virus disease, again, women are recommended to wait at least eight weeks after symptoms onset and their male partners are recommended to wait at least six months after symptoms onset. However, for women without known Zika virus disease, the CDC recommendation is to talk to their health care providers, which essentially means counseling women and educating women about risks and benefits of conceiving now, as well as what may happen if Zika virus infection occurs during pregnancy.

Dr. Dominika Seidman:

So, when you think about, or when you see a woman who may become pregnant, whether she's trying to conceive or not, based on CDC guidelines, questions, and recommendations you might offer her include, first of all, have you traveled to or lived in a place with active Zika transmission in the last eight weeks? Your follow up question may be about symptoms. Did you have fever, rash, joint pain, or red eyes within two weeks of exposure? If yes, the patient should be offered testing. And for all women, they should be recommended to wait at least eight weeks after exposure or symptoms to conceive. In addition, it's important to ask women about their partners. Has your partner traveled to or lived in a place with active Zika transmission in the last six months? Did he have fever, rash, joint pain, or red eyes within two weeks of exposure? If yes, he should be offered testing, and she should be recommended to wait at least six months after his symptoms, or eight weeks after his exposure, to conceive. And during that period, the couple should be recommended to use condoms.

Dr. Dominika Seidman:

For the remainder of the talk, we're going to focus on how family planning providers can provide information and education to their patients about Zika, and how these conversations intersect with conversations about pregnancy planning and prevention.

Dr. Dominika Seidman:

The primary principles of integrating conversations about Zika into family planning care include principles that are used throughout your family planning work. Assessing pregnancy intentions and providing preconception for patient-centered contraceptive counseling as appropriate. For counseling about Zika, it's very important to acknowledge the uncertainty about emerging data and how

information is changing rapidly. Finally, I'm going to propose using a shared decision-making approach, that has been found to be effective in contraceptive counseling, in your conversations about reproductive intentions in the era of Zika.

Dr. Dominika Seidman:

Shared decision-making is an approach to counseling sessions with a patient that allows patients and providers to make decisions together. This framework is appropriate when there are multiple options, and no clear recommendation, as is true in many situations related to reproductive decisions. The shared decision-making process respects patients' expertise in her own preferences, values, and experiences, and the providers' expertise in medical knowledge. Providers come to a mutually acceptable decision. Shared decision-making in one study was found to be preferred by patients in contraceptive decision-making. For further information on shared decision-making in the realm of contraceptive counseling, I'd refer you to a wonderful webinar previously recorded through the California Training Center by Dr. Christine Dehlendorf. This slide is a diagram of a visit founded on shared decision-making principles. To start, the provider develops rapport with a patient. And that's critical to facilitating the conversation throughout the rest of the visit. Then the provider elicits preferences about pregnancy intention, and for those who desire contraception, method-related preferences like how often this method needs to use, if the method is hormonal or non-hormonal, et cetera. At the same time, the provider offers information about risks and benefits of pregnancy or contraceptive methods as appropriate and provides evidence-based information about side effects of contraceptive methods for example. Next, the provider facilitates decision-making, helping a woman match her preferences to a preferred method or reproductive plan. Finally, the provider leaves an open door, recognizing that pregnancy intentions may change, and to review contingency planning, if there's a method failure. We're going to focus today on the offering information component of shared decision-making. After you've assessed pregnancy intentions and contraceptive method-related preferences because this is where conversations about Zika are easily included.

Dr. Dominika Seidman:

For women who clearly state that they want to avoid pregnancy, you may begin by assessing the Zika risk factors and providing education about the epidemiology and risks associated with Zika virus. This can be framed as information that may be helpful for choosing a contraceptive method, as well as information that may be useful if their pregnancy intentions change. When you provide this, your goal is really to not influence her pregnancy intention, but rather to provide her with evidence-based information so she can make an informed choice. After providing the background, you may counsel on a variety of contraceptive options, helping the women to choose the method that's best for her. You may find that an individual's risk of Zika influences her contraceptive preferences. Specifically, those women who are at greatest risk due to geography or partner risk factors may be more interested in using a highly effective method to prevent an undesired pregnancy. At the same time, women will have preferences about other method characteristics that influence their choices of a method. For example, bleeding profile, how often the method has to be used, etc. In addition, women may also factor into their decision-making, the availability and accessibility of abortion if they were to get pregnant. After choosing a method that hopefully you'll be able to provide on the same day, on-site basis, including things like LARC and emergency contraception, all women should be offered information about how to prevent Zika virus infection. While this is particularly important for those women who choose a less effective method and who are at increased risk of pregnancy, this counseling should be provided to all women, given that no method prevents pregnancy 100% of the time, and that women's feelings about

future pregnancy and contraceptive behaviors may change. This prevention should be included not only about prevent mosquito bites, but how condoms can also reduce the risk of both STIs and Zika transmission.

Dr. Dominika Seidman:

For a woman who wants to get pregnant, similarly, counseling might begin with a general overview of the epidemiology and risk associated with Zika infection, including an individual risk assessment based on a woman's place of residence and travel patterns, of both the woman and her partner's. This might include specific information about the recommendations around timing of conception in the context of possible or known Zika exposure that we previously reviewed that are published by the CDC. As we discussed as a reminder, testing is only indicated for symptomatic women who are not pregnant, even if they are planning conception. However, once pregnant, asymptomatic women should be tested if they've had a potential exposure with antibody testing according to the CDC algorithm, two to 12 weeks after an exposure. It's absolutely critical to let women who are contemplating conception know that evidence of Zika may be detected quite late in pregnancy, when abortion may not be available.

Dr. Dominika Seidman:

This is the CDC testing algorithm for pregnant women with a possible Zika exposure. I bring this up in this section on women planning conception, because I think it's important to forewarn women what their recommended testing is like if they have an exposure during pregnancy. If a woman has a positive Zika test, serial ultrasounds and option counseling are recommended. If her testing is negative, a detailed anatomy scan is recommended. And if there are findings consistent with Zika, further testing is performed, and again, options counseling should be offered.

Dr. Dominika Seidman:

Going back to your patient who may want to get pregnant, you may then explore with women, whether assessment of her individual Zika risk, both now and in future, influences her desires for pregnancy. Access to abortion may also affect her decision. As an example of one way your Zika counseling may influence her decision, if a woman has a planned trip to a Zika-affected area, for example, if she's planning to go to Rio for the Olympics, after your counseling, she may decide to defer attempting conception based on the CDC guidelines for eight weeks after her last possible exposure and return to the US. She may desire contraception during that time. Again, your goal is not to influence her decision. Information so she can make an informed choice. All women should be offered education regarding strategies to reduce their risk of Zika infection, as well as other preconception care, including advice to traveling to areas where Zika transmission occurs, whenever possible. In addition, you should let women know about Zika symptoms and how to seek care if they occur. For women who are unsure about pregnancy, they should be counseled similarly to women who are actively attempting conception. Again, you'll start with education about Zika and a personalized risk assessment. You can manifest whether a woman's feelings about pregnancy have changed, including whether she now wishes to actively prevent pregnancy, or alternatively, she wishes to plan to conceive. For those whose feelings about pregnancy have become less ambivalent, you should provide appropriate care for either preconception counseling or client-centered contraceptive care as appropriate. If a woman remains unsure and does not plan to use contraception, acknowledge potential risks for pregnancy in a nonjudgmental manner and discuss risk reduction strategies about Zika symptoms in a manner similar to those with clear desires to become pregnant. The goal here is to optimize the outcome of a pregnancy were it to occur. This conversation might also include the woman's feelings about abortion and abortion access.

Dr. Dominika Seidman:

We're going to transition now for the end of this talk to talk about women who come into clinic for pregnancy testing. If a woman comes in and is diagnosed with pregnancy, you might start with your routine assessment of pregnancy desires and options counseling. If a woman is unsure, or plans to continue her pregnancy, women should be offered education about Zika and assessed for risk factors. If she plans to continue the pregnancy and has a possible exposure, she should have IgM testing, the antibody tested earlier reviewed, even if she's asymptomatic two to 12 weeks after an exposure and follow the CDC algorithm for ultrasounds in pregnancy. Again, here it's absolutely critical to let women know that evidence of Zika virus may be detected later in pregnancy when abortion may or may not be available. After this counseling, you may reassess the information about Zika has affected her pregnancy intentions and provides Zika prevention information again to all women.

Dr. Dominika Seidman:

Finally, for women who come into clinic and have pregnancy testing but are not found to be pregnant, again, you'll do your routine assessments of pregnancy intentions and provide contraception or preconception care as appropriate. And so, it's important to assess her risk factors and provide education about the virus. You'll then assess if her pregnancy intention changed. Again, with the goal never to change a woman's decision. Provide her information that may help her make a decision that is best. Give prevention to all women, including important information about how to prevent mosquito bites, and how to prevent sexual transmission, including information about how condoms reduce the risk of Zika virus transmission.

Dr. Dominika Seidman:

So, with that, I wanted to leave you with some resources and that you can refer to in your clinical work. The CDC has what I find very useful and up-to-date information that is being constantly updated. There's information both for patients and for providers and information specifically targeted for providers of reproductive age women. The WHO also has information on Zika on the website that's listed here. The Office of Population Affairs, I wanted to highlight that they are working on a toolkit for family planning providers that's in production, and as far as I understand, it should come out later this summer. Finally, for information about testing specifically in California, you should go to the California Department of Public Health's website. And lastly, ACOG has useful information in particular about if there is Zika virus infection during pregnancy.

Dr. Dominika Seidman:

I want to just thank the California Prevention Training Center for inviting me to give this talk, and in particular, Dr. Mike Policar and Dr. Christine Dehlendorf for their input on content.

Dr. Dominika Seidman:

And with that, I will take any questions.

Linda DeSantis:

Great, thank you for that. We'd like to invite any of the participants to please type in any questions that you may have into the chat box. And we have a couple coming. So, the first one is, if we have a positive pregnancy, that is a possible exposure, who should we send them to for the Zika testing?

Dr. Dominika Seidman:

So, the primary thing to do is to contact the California Department of Public Health. And it depends on the capabilities of your clinic, but the actual testing isn't complicated. It's urine and serum. It does have to be sent to DPH, and so I think what would be best would be, even probably in advance, for someone in your clinic to contact DPH to see if you are able to do that testing. If not, primary care doctors are generally the best places to go, or a patient's planned pregnancy provider.

Linda DeSantis:

Thank you, the next question is, can women give this to men? I understand the virus can be present in semen, but what about vaginal secretions?

Dr. Dominika Seidman:

That's a great question. As far as I know, we don't know yet. Presumably yes, but we know less about, and I don't think we have any documented cases today of transmission from women to men.

Linda DeSantis:

I can see that people are typing in other questions and we have one now. Regarding family planning and pregnancy, should precautions be taken in areas where Zika is not currently active, but possible?

Dr. Dominika Seidman:

So, I think all women, since we are in 2016, and everyone is a global citizen, should be counseled about the risk of Zika, especially with respect to travel, in both of them and their partner. I think it's also good public health practice to try and reduce mosquitoes around your home in general, and workplace, and so those practices around trying to get rid of standing water are always a good thing. Beyond that, I think that it's really on a case-by-case basis, but I think given the media attention to Zika and a lot of the misinformation that is out there, I think it is really important that we try to provide education to all women, and then tailor additional prevention methods as appropriate depending on her specific possible exposure and her partner's exposure.

Linda DeSantis:

Okay, are there any documented cases of young children with Zika virus, and what are the long-term implications?

Dr. Dominika Seidman:

Well, that's a great question and we don't know. We don't know what the long-term implications are, for example, of fetuses that we know or a baby that we know were exposed in utero but have no current anomalies. And we also don't know if there are long term implications of the virus in babies and young children. Certainly, there have been examples from other viruses in the past where infection during pregnancy has been associated with longer term outcomes like cognitive delay, difficulty with coordination, things like that. But all of the data that we have today is extrapolated from other viruses and Zika has proven to be very unique and different. And so, I think we really have to watch and see what happens with the data moving forward.

Linda DeSantis:

Okay, great. The next question. If a male is tested for Zika because of symptoms but is negative, should he wait eight weeks, or six months?

Dr. Dominika Seidman:

That's a great question. So, with that, I'm going to go back to our CDC slide. Okay, so for a man who has symptoms but negative testing, now again, we know that negative testing does not necessarily mean that Zika has been ruled out. In this algorithm, now granted, this is a very conservative algorithm, but in this algorithm, Zika virus disease is defined as both Zika virus confirmed with lab testing, or simply symptoms. The recommendation for men is to wait at least six months after symptoms onset. Now again, that is a complicated recommendation to make to a couple. And I think it's really important in that situation to have a nuanced conversation about risks and benefits, and I think that might be a situation where follow-up testing would probably be indicated for the partner. Again, also, it's important to talk about condom use, and also to put all of these questions in the context of a couple's reproductive goals, the age of the woman, etc. That's a great question.

Linda DeSantis:

We have a comment coming from Yolo County that CDPH recommends reporting pregnant women with possible exposure to their local health departments. The test sample collection is coordinated by the local health department, as well.

Dr. Dominika Seidman:

I completely agree, yep, it's not just pregnant women with possible exposures, right now they really want to encourage anyone with possible, well I guess you're emphasizing the exposure component. Anyone with possible symptoms they want to be reported and certainly pregnant women with possible exposures should be reported and testing, as we said, an asymptomatic pregnant woman is indicated, and again, your local health department will coordinate that, but I'd refer you to the California Department of Public Health website where there's great information on testing.

Linda DeSantis:

How much of a reduction in probability of transmission eight weeks after being symptomatic is there?

Dr. Dominika Seidman:

That's a good question. That is a very, again, conservative recommendation on the part of the CDC, and I think they've made that conservative recommendation with the concept that the risk of transmission would be as close to zero as possible. Now again, we really have limited data so I can't give you a specific number, but eight weeks is far beyond what we would expect in terms of the possibility of transmission. But can I say it's absolutely zero? No.

Linda DeSantis:

And it looks like we have another comment that says all requests for Zika testing must go through the patient's home residence's health department for approval.

Dr. Dominika Seidman:

That's right. Yep, your local health department needs to approve testing. Thank you for that comment.

Linda DeSantis:

Looks like that might be all the questions we have unless anybody else wants to type something in now. We had a few on our end, but they were actually asked by other participants, so that's helpful to know. Well, we don't see anyone else that appears to be typing. So, with that, we may be coming to the conclusion of this webinar, and I just want to appreciate you, Dr. Seidman, for all this information. Really timely, it's been all over the news, there's so much about it, and you know, I think there's really interesting things we want to be thinking about in regard to family planning. This is a recorded webinar, so we will be sending the link out, along with the slide set to everyone who has registered, along with our post-course evaluation being sent today by Survey Monkey, so you'll be receiving a number of emails from us. The recorded version of the webinar will also be available on the Office of Family Planning website, as well as the California Prevention Training Center website. So, you can use those as resources, as well as the list of resources that you've included in your talk today. So, thank you to everyone who has participated, and again, thank you Dr. Seidman for this valuable information.

Dr. Dominika Seidman:

Thank you for having me.

Linda DeSantis:

Good day, all.