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EMERGING ISSUES IN THE MANAGEMENT OF STIS: SYPHILIS IN PREGNANCY: CARE AND FOLLOW UP OF THE NEONATE

Geoff Weinberg, MD

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Emerging Issues in the Management of STIs: Syphilis in Pregnancy: Care and Follow Up of the Neonate
[video transcript]

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Weinberg. Dr. Weinberg is a Professor of Pediatrics at the University of Rochester School of Medicine and Dentistry. He's the Clinical Director of the pediatric infectious diseases and pediatric HIV program. And he is the CO attending for the pediatric primary immune deficiency disorders clinic at the UAR. Medicine Golisano Children's Hospital. Welcome, Dr. Weinberg.

00:30
Thank you very much, Jessica. I'm going to put this up for two more seconds because I was slow and following Jessica's talks of everybody should know that we acknowledged her health equity goals. And this is me and that's less important. But we are going to talk about care and follow up of the neonate. Today, hopefully a little bit about evaluation of the syphilis exposed newborn, and also plan to follow the follow up laboratory studies after the neonatal syphilis exposure and or therapy, because we follow infants in both situations. And we've had a lot of calls in the CDI hotline for perinatal and congenital syphilis, about both of these subjects I thought I'd touch on both today. So we all know that congenital syphilis is is a big problem. I'm sure everybody knows it's been on the rise in New York, it's been on the rise in the United States. In fact, it's been on the rise in Europe, too. And the latest, one easy latest data I found from a few years ago, from reporting of 2010 to 2020 state, excuse me, United States wide, not just New York, is that there were more than 2000 cases of infants born reported as cases of congenital syphilis. And what I think sometimes we forget is that there were more than 140 deaths as well stillbirth and infant deaths. So Syphilis is definitely as you can see from the slope, very much on the rise in the last five years. And the informal data we have from 2021 22 and 23, are no different, unfortunately, than this increasing slow. So that means I'd like to review today, both prevention of diagnosis and treatment of syphilis. So we'll get this thing out of the way that resume like thing on the title. So when I think of preventing, diagnosing and treating syphilis, actually, it starts with identification prevention starts with maternal syphilis. So this is more something that Dr. Urban and Dr. DeMarco and others in the webinars often talk about on the mother and but the mother end is just important to me, as the neonatal. And so that is where we have identification of syphilis during pregnancy, timely screening and high index of suspicion for diagnosis outside of the normal screening time. So any mom who comes in with an unusual rash or unusual complaints, we just have to start thinking syphilis, again, providing adequate treatment and follow up of the pregnant person who is diagnosed with syphilis, and making sure our treatment is adequate, which means penicillin. So then, when we come to the neonate, which is more my focus, and our focus today that I put here in blue, again, I start with assessing what's happened with mom as the very first part of diagnosis, not just prevention, but

diagnosis. Because in order to take care of the baby, I need to know what happened to the mom. Did she get penicillin? Did she or did the pregnant person get penicillin? Did the pregnant person get more than this? The penicillin therapy more than four weeks before delivery, to give adequate time for the penicillin across the placenta and getting into the baby? Then I need to think of assessing the baby clinically, laboratory wise radiography wise. And that's where people often start, but I always say no, no, no backup, tell me what's happened to the mother of this child, then go to the baby, then think of what's adequate treatment and follow up of the neonate. And again, the treatment will be limited to penicillin, and the adequate follow up we'll talk about so we can't talk about congenital syphilis without reviewing the findings at birth. What is the baby look like? And the biggest teaching I want you to remember is the baby often looks like a baby. They're asymptomatic, oftentimes, even if they have rip roaring, congenital syphilis. So this is a strange business. Usually, we think of public health reporting of diseases that are easy to spot easy to diagnose. Syphilis is one of those times when we have when we can have asymptomatic babies who we're still going to call probable or proven syphilis. But if you see some symptoms were thinking of the early rhinitis and the baby babies shouldn't be born with with runny noses and nasal discharges other than you know, getting rid of hemorrhagic fluid in the first few hours. That's in the old days. This was called Snuffles. Still sort of a fun word, I guess. So that's why I put that up there. Looking for hepatic Magalie hepatic splenomegaly, looking for rashes of syphilis, sometimes looking at sometimes a baby will exhibit what's called the pseudo paralysis of perot they'll have periostitis of an upper limb, generally and upper limb enough to cause pain and so the child the baby will not want to move an arm. And the first thing perinatologist neonatologist pediatricians nurses usually think of when a baby's not moving an arm is oh, there was a delivery trauma and there's an herbs policy. But we have to remember that in this day and age that could also be a sign of syphilis. I don't think I've ever seen condyloma Lada the flat warts in a baby with congenital syphilis, but it's well described. And as our other sort of nondescript rashes, like edema, sometimes a baby's have unusual jaundice or Hepatitis. And then when we get to the laboratory and of the child, again, it could be simply asymptomatic with normal labs. But if you're going to find abnormalities, the places we're looking the most are in the complete blood count to look for low platelets or low red blood cells or low white blood cells, rarely high white blood cells. We're looking in the CSF to see an abnormal CSF profile either with elevated white cells, which is CSF pleocytosis, sorry, elevated protein, reactive CSF vdrl is elevated hepatic TransAm and aces should be up here with blood tests, and then long bone changes on the X ray. And just to put a picture to all these words that I'm talking about, here's a baby who has a protrusion abdomen because the liver which somebody is marked conveniently and in a with a pen. The liver is big, the spleen is big. You can see the spleen crawling down there. And so that's a baby with a paramedical hepatic splenomegaly. here here's some various rashes of syphilis. I don't I haven't seen him this cleanly. These are from books. Here's a Snuffles This is would be an abnormal amount of rhinorrhea, maybe some rashes here, another x ray of somebody with a big liver and spleen and

poor child. I have seen rashes like this that are just sort of nondescript and first you look at them and say is this a postdates baby and gee, they're appealing a little bit but that's really an abnormal I think anybody would look at that and say, What's wrong with that baby? And what's wrong with a baby is that they've been exposed to syphilis and are infected. And the things we and the reason I put this slide up particularly in habit, bonded it bound bounded in thick red lines, is because in books about congenital syphilis, they're often talking about the old days with late syphilis with with saber shins or with Wynberg, or sign the the osteomyelitis that's eating away bilaterally. At this poor child's tibia is the high arch palate, the abnormal teeth, the interstitial keratitis. What's called Hutchinson's triad of abnormal teeth, and keratitis. And those things I want to remind you don't happen until several years after this poor child is not diagnosed and whose treatment is missed. So I should have a big X through this, I don't know maybe next time I talk, I'll draw an X through this, we shouldn't see any of these things. Because we want to diagnose and treat babies way before this. And if you successfully treat them with penicillin, we should banish this from our clinical lexicon. So given that there are lots of things we're going to see potentially, but many of the children are going to be asymptomatic, we have to depend on sort of a syndromic thinking process, meaning the baby, the history of the mom, the laboratory evaluation, and whenever you have a syndromic process, that means that somebody is going to draw an algorithm with little boxes and lines and say, Oh, this is easy, you know, some engineer, no offense to engineers, but this is a very engineering approach to medicine, where we, oh, yeah, we'll just start here. And if this that, then that, if that then this sort of a computer science off and on approach. And the trouble is, it gets very complicated. And actually, every time even after all these years, every time I think of a baby with syphilis I pull out this algorithm and I start reading with a magnifying glass. And I'm not going to go through that

10:07

today, because it's really boring, but it's important. And it's complicated. And so I think, when I teach people about syphilis, my most important teaching is basically, every baby needs a careful physical exam. Every baby needs a serum RPR. And I want to emphasize that, even though older state laws and regulations, including our great state of New York, talk about doing cord blood are our prs. That's because the laws have not kept up with medical technology, Cord blood is easy to get because you stick the cord and the cord doesn't have any feeling it's cut off from the mom, it's cut off from the baby. And everybody thinks, oh, how friendly This is we'll stick a big needle in the cord, and nobody will say ouch. But it is. It has it is well known that there are false positives and false negatives in the RPR testing and cord blood for various laboratory reasons that we won't go into. So I really like to have a serum RPR in the baby. You can do a heel stick if you want, but we needed on the baby not on the baby's cord. And most all babies need a CBC diff platelets and liver function tests. This isn't exactly how the algorithm works. But when you synthesize all these boxes together, basically I do this and just about everybody. And unless the

mom has been extraordinarily well treated and before a month of delivery, and you're sure that this isn't syphilis, most all the babies are going to get a CSF and we do a CSF vdrl Not a CSF RPR because that's just the way the laboratory cookie tumbles. There are technical reasons why the vdrl is still the old fashioned 50 6070 year old vdrl test works better in cerebrospinal fluid than does the 5040 or 50 year old RPR test. And most babies are going to get some long bone radiographs. And then some babies when we're really in the in the unsure certain age or when there's a question about it, we will do a formal ophthalmologic exam. I put it in plus minus is because different sources say oh yeah, you always have to get an eye exam. But honestly, for most babies, I do not I think and a lot of hospitals don't have a pediatric ophthalmologist that can do an eye exam in the first few days of life and that are available. And I think a lot of hospitals don't have placental pathologists who are looking at the placenta all the time. But if you get those babies, if you happen to have those, they can be helpful. So confusing it best. But there are sources, this one comes from the AAP Redbook. And it's pretty much in synergy with the CDC and the state guidelines. But it does require some some careful looking and some reading and clean glasses to look at it through which you can see in the CDC 2021, the latest iteration of the STI treatment guidelines make it a little bit easier. And they're gonna break things. It basically they take these boxes down below and realize where they're coming into the same drainage ditch of boxes, and they come up with four scenarios. The baby either is going to have confirmed proven or highly probable congenital syphilis, possible congenital syphilis, congenital syphilis less likely meaning it's possible, but probably not. And congenital syphilis, unlikely. And let's just take a look at those. So I know you know these put in review, because then we're gonna have some cases in a second and to go through how I real cases, and I've gotten through the CEI line in the last few months that will demonstrate this. So neonates, obviously, it goes without saying and neonate, who has those physical findings that I showed you on the first couple of slides that look like syphilis who has a mother who has a positive RPR, and the baby has a positive RPR. That's a no brainer at syphilis. And, or if the baby even if the baby has a normal physical exam, but his or her titer is fourfold greater than the moms, that's syphilis. Or if the placenta is teeming with trap names that syphilis, so I don't think people argue about this category very much. It's these other guys that get confusing, so possible congenital syphilis, but what if you have a normal physical exam, and you have a pretty low RPR that's not bigger than the maternal titer. But if mom didn't get treated, or was inadequately treated, or you don't know where mom was whether she got treated or she had no prenatal care and you don't know anything. That's going to be called possible congenital syphilis and the reporting guidelines, we may think of that clinically, we may call that kid Yeah, and that kid likely has syphilis. But the way it's reported out is going to be a possible. It's also possible if mom got a non penicillin non recommended regimen, or probably most commonly, the one that I face is well, either this one where we don't have documentation yet. And here's where your health department where you guys helped me a lot, because I call the health department say, Have you ever heard of Mrs. Mrs. So and so? And what's their treatment history because I

can't find it in my electronic medical record. But the others, the other frequent situation is, treatment was rendered, but was initiated less than a month before delivering congenital syphilis less likely as well. Everything went okay with the titers, Mom was treated, treatment was given with appropriate penicillin appropriate dosing more than 30 days before. But maybe the pregnant person's RPR has not fallen, yet. We all know that it takes a while for our PRs to fall in pregnancy. And if you have a high titer, a month and a half before delivery, and you're treated, a month and a half may not be time for your titer to drop yet, so it may not be syphilis, it's less likely. But Syphilis is such a god awful disease, to have a neonate go through in the first few years of life, that we don't want that other slide coming out with all those congenital abnormalities. We may treat that anyway as less likely. And then unlikely is everything looks good. And physical exam titers, adequate treatment titers are low and mom are negative, well, then that's probably good. So let's see how this works in real life, rather than in words and tables. Here's a case of a newborn male infant, this was just a month or two ago, physical exam showed some hepatic Magalie. The moms titer was one to eight, her RPR titer at birth at delivery, the baby's titer at birth was one to one. So it's not fourfold greater than moms, but it is positive. And unfortunately, this pregnant mom had not had any maternal treatment, they had not had any prenatal care, lot of bio psychosocial issues going on. So that so then I get a call about the baby, this was actually in our hospital, and what's the classification and plan with this child, even before we get other labs in the CSF? Now, you know that this kid is going to be highly probable congenital syphilis because there was no treatment rendered. And there's a abnormal physical finding, which yet could be because of other things, but in the face of possible syphilis, this counts as a clinical finding. So there's no question in my mind, no matter what the CSF, their X rays, and blood tests are that I'm going to give that child 10 days of intravenous penicillin. Now, the reason I have a star up here is I'm going to use this case as case 1.5. What would happen if I came to examine the child's I don't feel a liver, I don't think this baby has a pad of Michael at all. We take an x ray, and it was just the kid was breathing, taking a deep breath. It's not really truly an enlarged liver. Does that change? Well, it changes that's where it's weird between public health reporting and clinical medicine, clinical medicine, I've given this kid 10 days of penicillin no matter what, because of the lack of maternal treatment, but actually, his treatment classification would then be possible. Clinical, it'd be scenario two possible syphilis, because the physical exam was abnormal. In that case, in the starred case, the physical exam would be normal. titers were not more elevated than mom. And so the classification changes a little bit but what you do as a clinical caretaker doesn't change.

19:20

So this is to put it into CDC language and abnormal physical exam congest consistent with congenital syphilis, and the treatment we're going to be given we still have value we still do the CSF blood counts long bone radiographs, even though I was poopoo and that I was going to treat the child anyway. I like to do that because I think it has prognostic value. If the kid comes

back in a month or two with some other finding, and you're worried that your treatment was not successful or you're worried there's something else with the baby. It helps to have done a full workup early on and the treatment is going to be 10 days of aqueous crystal and penicillin G II at these doses. And an important caveat that doesn't show up here is don't let it interrupt. I have had a time or two where the electronic ordering in our hospital system gave an order for the first seven days at this dose, but somebody somehow didn't order the dose increase in the next three days. And it was not picked up for a day or two. So on day nine, the baby had had a couple of days of no penicillin and I made them start all over again, you have to have an uninterrupted 10 Day sequence. The other caveat here is CDC always puts in that procaine penicillin I am daily can be used. I think that's rather torturous to give a baby 10 I am shots in a row over 10 days. But if there's ever a time when you need that, that can be done for on a desert island and don't have any IV units left. Or if there's you know, God forbid an emergency in the hospital or weather emergency or something we can use procaine penicillin I am. So case to the normal. Here's a normal male infant, fit normal physical exam newborn male mom had a syphilis of unknown duration was appropriately given three weekly benzathine. im shots which she completed, the therapy was completed a month before delivery. And her titer went from one to 32 to one to two a month before delivery. So everything looked like it was on target was fine. But delivery her RPR was actually fourfold elevated. And she was also found to have gonorrhea. The baby had a positive at one to one, which is not fourfold greater than one to eight. But what would be the thinking process here? So if we had stopped right here, we would have said this is probably, you know, an unlikely syphilis because Gee, she had good duration. She had good treatment. She had it more than a month before her RPIs fell. But this is a this is a warning sign here. I don't know whether this is fluctuation during pregnancy to go from two to eight. It's an awful lot of fluctuation. If it was two to four, I would have said it was okay. But a fourfold change is worrisome for reinfection. And having on oh, by the way, having a new case of gonorrhea is worrisome for infection or for other high risk contacts. So this child technically is possible congenital syphilis. But I clinically again, I would give 10 days. And that's because mom was adequately treated, in fact, but the but you're not sure if the if she hasn't been reinfected, which would put her back into a non adequately treated mode right before delivery, because now she has an increasing RPR and she has gonorrhea. So again, she gets 10 days of penicillin. And it's interesting, the CDC says, Well, if this is possible syphilis, then the evaluation might be not necessary. Although it's useful. I just do it always. I don't actually agree with CDC here. I think in these types of situations, it's so confusing. I have had babies who have come back a month or two later and somebody notices a little little abnormality in the long bone film and then you don't know whether that was there already as a as a as a part of neonatal syphilis, or it happened afterwards because your treatment didn't work. So I really do evaluate these babies. Okay, case three, newborn female infant physical exam normal. Mom got treated early, late. And syphilis. She got her IOM syphilis three months ago. And her RPR went from one to 64. Eight fold down to actually Excuse me 16 fold down to one to four at delivery and babies

RPR is negative. Well, this one is great. This is a less likely congenital syphilis. You could say well, this isn't syphilis at all because she's been well treated. And she's had a serologic response. But I think many times what happens is, you fall into this box mother was treated during pregnancy was appropriate. treatment was timely, hasn't had reinfection or relapse. Generally in these kids. These are the kids that I may not do an LP and long bone films, I still do a CBCs and liver functions. I tend to be a heavy user of benzathine penicillin. I am one time because again, the risks of this therapy are minimal. The expenses are minimal and the The risk of missing syphilis in a baby is tremendous for that baby's life and development. But if and, and oftentimes somebody who's, you know, moms who have had syphilis may not be in a position to have good neonatal follow up, they may have challenges in their life coming into medical care, and bringing the baby promptly into follow up. So I like to give the baby a treatment there. But there's a caveat that, you know, if you really think they're going to be close follow up, and you really can get a hold of them. And you really think things are fine, you might be able to not treat there. And then I'm going to zip through this one because it's an easy one, normal female, normal, normal female instead of the normal exam. This was a call I got about two weeks ago, but baby with early, late and syphilis, or the mom had early latent syphilis treated 12 months ago. So a year ago, she already fell from 64 to four, and she's cero fast at two and the baby looks fine. This is one I'd say unlikely congenital syphilis. That's a that's a zero fast Mom, no treatment indicated. If you really have concerns, you can give Ben's a theme but this is one that I would say I probably wouldn't treat. So then I want to switch from diagnosis and evaluation in the last few minutes to follow up. So here's a recent case we've recent questions we've had several times normal newborns, led let's let's just use the case example from number one. In fact, where remember, the mom wasn't treated her RPR was big, the baby had symptoms we treated the baby baby at birth was one to one and hurt and in his RPR Excuse me. And at two months, his baby still had a positive RPR and still had positive trepat Nemo titers, and at four months I got a call. Okay, now the RPR is negative, but the EIA and the TPPA are still positive. Does this mean the child still has syphilis? Did our treatment not work? Are we supposed to stop now? Because the RPR is negative? Are we supposed to screen this baby until the trip needle titers are negative? And the answer is no, this is you did a good job adequately treated congenital syphilis. Once the RPR drops to zero, you don't need any further testing. The RPR is is what and don't get me wrong. We like EIA tests we like we need treponemal positivity treponemal specific antibodies and adults and older children along with our PRs to diagnose syphilis. But in this particular case, in the case of following up a newborn, you really just need to depend on the RPR because the EIA and TPPA are, are they're very sensitive tests their high titer antibodies and the mom, it's going to take six to 12 months for those things to go away. So as soon as the RPR is negative I stop. So that means babies with a reactive RPR at birth, whether you give them a one time benzathine or 10 days of IV, I want to see that RPR exam every couple of months until that baby's negative. Technically, it's every two to three months, I often say two to four because babies are going to come in for their routine immunizations at two months,

four months and six months. Babies who have a negative RPR at birth, you could argue okay, they still out they have a negative what are you going to do? Well, I'd still rather see them at three or four months, and do it one more time to ensure it's negative again, congenital syphilis is a crippling disease. And I want to be triple sure that that baby is not syphilis. Babies with a negative root RPR at birth, you know, babies in the unlikely box, who didn't even have an RPR who didn't get treated. Yeah, they still need an RPR, three or four months to ensure their negative. But I'm allowed to ignore treponemal antibodies. And we don't do repeats LPs, unless they have symptoms that six to 12 months, something's not right with the baby's development. You're seeing more rashes, whatever.

29:11
So this is a change from a few years ago when people used to suggest repeat help LPs. So this is this has been the source of many calls to me lately. So that's why I wanted to focus on that case. I think it's right at the hour. We certainly want to hear from you in terms of ordering. I'll let Jessica have any final comments if she wants. The conversations with CDI at pod bean.com is here. The webinars go frequently. The QR code is here and you can order plenty of nice. Cei line pocket cards to help with this with all of the complicated STIs which seem to be on the move across our country. Thanks very much.

30:02
Thank you so much, Jeff. That was That was great. We do have to two questions that came in and it's looks like maybe more are coming in. So one is can you please clarify when a mother is getting three doses of bicyle? And when is treatment considered adequate? If the first injection is 30 days prior to do all three injections have to be 30 days prior

30:28
to viruses are probably the most complicated question we get, because there are varying suggestions. The AAP talks about initiation of therapy and CDC talks about initiation of therapy. But I think the some of the recommendations were written in the days when most of our therapy was one dose. So initiation was the same as completion. We've had some situations lately, where, where, you know, moms have had late late and syphilis need three doses of, of benzathine penicillin. And we've chosen to say that it's completion. And I'm looking at Margie specifically to make sure that we're saying the same thing.

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So that's not what CDC says CDC would say initiation. Yeah, and it of course, if you're giving three doses, they are completed before delivery, right. So if the first dose is more than 30 days, all three doses are in before delivery. Well, that's true dose doesn't have to be initiated before delivery, according to CDC.

31:38
That is, according to CDC, and I think that's how, you know, that's how we should be reporting. Clinically, I'll tell you, on putting on my clinical had not on my public health had, I've sometimes up the category of that baby, and considered them more at risk, and therefore treated them if, let's say a mom got the first two doses. You know, it was she started? Well, we've we've had situations, I mean, basically, it should be just initiation, you're right, because if they really did it every week, then they completed before delivery, right? Tremble is when a baby's born prematurely. And you're right in the middle, you just gave the second dose. It was right on time mom was really good about coming in. But you just haven't gotten that third dose

32:26
that is inadequately treated. Right. So she didn't write.

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So then it's considered inadequate. So that's why Yeah, but I guess it gets into very fine complications. Did we have a second question?

32:40
How do we care to characterize a report a baby with a nonreactive RPR. But born to a mom without adequate treatment? So like case, one that you had, but the baby's RPR? is nonreactive.

32:54
You really have to go with what the mom's treatment was in that case. So the baby's RPR. I mean, we want to know what it is. We want to know if it's higher than moms because that's certainly syphilis. But even when there are PRs or negative if the baby if the mom hasn't had adequate treatment, I treat that baby now. Reporting wise, I mean that because those boxes still are driven by mom's treatment and by physical exam, not so much by what the RPR is. Am I misunderstanding?

33:38
Yeah, right. So if mom is inadequately treated, the baby would be considered a possible case, right. Sorry,

33:46
I have a new puppy. Yeah. Okay. And that's okay. I'm trying to look at questions online too. But

33:53

so there's a couple other questions. Sorry, case number two, if the mother did not have gonorrhea, what would you have done? So that was the case where at delivery, the mother had a titer? That went up fourfold?

34:11
Yeah. Which was possible. I would have treated that baby the gonorrhea was like the tipping point, but I'm worried when, remember, RPR is an old fashioned serologic tests. That's why we're so focused on fourfold changes. A two fold change is not considered clinically relevant. A puppy but a fourfold change is worrisome. And you will go up if you get repeated syphilis exposure. So I would have been worried and yes, laboratory the laboratory can sometimes have a two fold change, and maybe even a four fold change, but not very often. So I put that in because really, there were two reasons that I was worried about that mom That was a tough case.

35:02
So I know we're over time here, I think we'll just stay on and continue answering. But if, you know, we recognize people may need to get off that question had a second part, can you address mothers who were treated prior to pregnancy and testing of infant's then sort of like your case of adequate treatment.

35:22
So if a mom's treated prior to pregnancy, and her RPR has fallen appropriately, and stays down, and of course, appropriately staying down, you'd like her to get to zero. But as with one of the cases, sometimes people are cero, fast at a low two or four tighter, then, you know, I might check in our oil, we all check our PRs, you know, a baby should have an RPR. Anyway, if the mom has a positive RPR, in my opinion, but I wouldn't do an LP and repeat treatment or anything like that. Okay.

36:01
There's a Is there are there any studies to show that the infant's trepan email tests ever turn negative?

36:09
Ah, I think there's clinical experience. I mean, I don't, I don't know that I've seen a long study. But by analogy with HIV, in which case, there are lots of studies, and I do this all the time. And with HCV antibodies, those transplacental antibodies are Kitab alized. And the old rule in medicine was you lose your maternal antibodies by six months. The trouble is, that's not true, because anymore, because our antibody detection systems are so sensitive, particularly for HIV and HCV, that we routinely detect those antibodies out to 12 to 15 months is the median time

of seroconversion. And so I'm assuming that treponemal antibodies are going to operate the same way. We've seen babies where they've, you know, I've seen babies already turned their antibodies negative at six months. It says My point is, if the RPR is negative at six months, you know, to for six months, and the trip antibodies are positive, I don't continue to look. So there may not be studies. But it's because, you know, it's one of those things. If you jump out of a plane, do you need a parachute? Well, there's no randomized controlled trial of parachutes helping people. But if Margie and I have one parachute left, and we're going to be fighting over that parachute, without a randomized clinical trial, or holding, hugging each other for dear life, with one

37:36
you wouldn't join together, I'm sure, yes. All right. They're asking there's a question about your opinion regarding the CDC with the possible use of two doses of benzathine. Penicillin in pregnancy, there's a sort of some experts meant, yeah, two doses rather than only one in so not

37:59
sure. But personal opinion. I would my opinion would be I would call Dr. Urban or colleague, Dr. DeMarco. By one dose has worked for many years.

38:13
Yeah, that's, that's, I do one dose. I feel like what you often end up, you know, chasing people trying to get in in the right interval. And yeah, and right now they have some supply chain issues. So, you know,

38:26
the obstetric literature has talked about two doses. I think it's just more from worry than from. I mean, the trouble is, is there are failures recorded with any medical treatment. And so those failures sometimes scare us, they should scare us appropriately, but they don't necessarily make public health policy.

38:46
Okay, couple more, does. The risks vary to the neonate depending on which trimester the mom is infected? So with new cases, newly acquired,

38:56
yeah, in general, the risk of of the risk of defects and stillbirth are higher when moms are treated early when moms are infected earlier in pregnancy. The risk but but actually, I'm gonna say this backwards the risk of earlier in pregnancy very early in pregnancy, we don't always see

as much transmission but transmission risk goes up as the pregnancy goes on. transmission risk is also worse for moms who have primary disease rather than secondary early, late and or late late and Okay. So I don't much I mean, I look at the trimester but it doesn't. It's one of those things. It's fuzzy enough that it doesn't drive my treatment decisions one way or another or my reporting decisions.

39:59
Alright, here's another one. If the mother is not adequately treated, and the infant has an RPR, that is higher than mom, and the infant has symptoms. So that's the infant has congenital syphilis, like Sure. Will the baby have antibodies for life after treatment?

40:18
That's a good question. If you treat the baby, the baby should not have antibodies for life. We we don't know why that is. But babies in some respects are like, adults. And you know, when you treat an adult for syphilis, they, they that the T, well, let me rephrase it, I was thinking so much of the RPR, they won't have an RPR for life if you treat them. I don't think we know yet. If they're going to have TPPA, and an EIA antibodies for life, I think the observation is that they may go away. But I think if they really have symptoms, and it was if you could somehow define let's say they have a darkfield positive lesion, I bet they would have treponemal antibodies for for years to life. Because that's how an adult would be if if you had you know, if you have somebody with a shank or right RJ, they're gonna have treponemal antibodies for life. So the trouble with congenital syphilis is we're so much we're so hampered in doing antibody tests on the baby, which may or may not reflect true infection and the baby, they may be transplacental. So we do a lot of treatment of babies who may or may not have syphilis based on everything we've said. And in the ones that we're treating for to make sure, but they have such early disease, or they have no disease, but we weren't sure those babies aren't going to have antibodies for life, but a truly infected one. I bet they would. But I don't think I've seen a lot of data for that. Because until the last five or 10 years, there wasn't so much congenital syphilis. So now we're in an unfortunate position where maybe we could do a study and answer that question.

42:09
Yeah, so in adults that the test question answer would be that antibodies persist, persist for life, but 25 to 30% of people will lose antibody over time. I have a couple of calls from the CEI line with individuals who it turned out, were TP positive as a result of congenital syphilis adults. Yeah. Oh, two two cases that I know of? Yes, I would.

42:40

Especially if it's a full term baby with a good immune system, I would bet they would stay TP positive for life.

42:46
And then there was one comment that we have seen some insurance companies refuse to cut cover penicillin treatment. I don't know if that person is still on it. And want to give Doxy which, of course, you couldn't do in an infant, right? Like, generally, you wouldn't do that. Because

43:04
meaning maybe to the mom,

43:07
but you couldn't do that in pregnancy either. So I'm not that person. But to clarify that.

43:13
Mary P. Are you still on? Oh, sorry.

43:23
She means the mother. Okay. But, but doxycycline can't be used ignorances.

43:28
So oh, oh, my that's still terrible, though.

43:32
Yeah, I would think that you could get a medical director of whatever your clinic is to protest that with the insurance company and, and maybe maybe even involve the health department.

43:48
Yeah, that I mean, that's a very serious error for the future. I mean, you you've got worldwide backup of CDC who? us you know, Dr. Urban's Poppy, everybody's gonna say.

44:06
Okay, and then one last one I didn't see in the same case. So I don't know which case mom treated with three shots a month before delivery. Would you still treat with a single dose upon delivery? So I think you said you err on that side.

44:22
I often. I think the residents are starting to know when I come around, I mean, benzathine penicillin has been used for, you know, before I trained so 50 years, and it's I never really see

Jarosz. Herxheimer reactions. I don't see any problems. Yes, it hurts, but it's like to me it's like an investment in this baby's future. And so I really, I tend to give it more often than not, unless I'm absolutely sure that three shots are delivered before. Well, but if For a month, before delivery of penicillin, there's going to be great follow up. You know, who knows the future in terms of how much follow up you can get. So this is kind of like an insurance policy for the baby.

45:14
Okay, so thank you all for hanging in with us for an extra 15 minutes. Thank you, Jeff. So clearly this is a topic that a lot of people have questions and interest in. Thanks, Jeff, for a great talk.

45:27
Thank you for having me.

[End Transcript]