**Clinical Chats Official Podcast Transcript**

**Title:** Combatting Congenital Syphilis: Conventional Testing and Treatment

**Speaker:** Kate Miele, MD, MA

**Duration:** 00:33:03

**Katherine Atcheson (**[**00:05**](https://www.rev.com/transcript-editor/shared/rSV0D-KB9GIu6IQe5s-hUi7C5DeUUC9TmUasJEen12QvgpIyMeL09KtREpmB--YvLqV_5K5TqG-2opIuQfrPlyFsz1c?loadFrom=DocumentDeeplink&ts=5.01)**):**

Hello and welcome to Clinical Chats: a Podcast for Sexual and Reproductive Health Professionals. Clinical Chats, formerly known as The Family Planning Files, is a program from the Clinical Training Center for Sexual and Reproductive Health, or CTCSRH, formerly known as the National Clinical Training Center for Family Planning, or NCTCFP, and is funded by the Office of Population Affairs in order to enhance the knowledge of Title X clinicians and other staff.

**Katherine Atcheson (**[**00:35**](https://www.rev.com/transcript-editor/shared/8f9aN7HAu9644lCO9tJStFrCMqAIPv0oxQp8A4WE2V3nnj9FPj2y-OMvuOXlTrcdkdhGV7qYfJXoG4pP-P7nE7fVv14?loadFrom=DocumentDeeplink&ts=35.04)**):**

In today's podcast, we'll be discussing using conventional testing and treatment protocols for syphilis, particularly as they pertain to preventing congenital syphilis. Our guest today is Kate Miele MD, MA. Dr. Miele is a medical officer with the Division of STD Prevention at the Centers for Disease Control and Prevention and adjunct faculty in the Emory Department of Gynecology and Obstetrics.

**Katherine Atcheson (**[**01:02**](https://www.rev.com/transcript-editor/shared/eU-KQEO_HDgNEvIxVECGyV91G2C9k_qc9Sk3CpG7X6DMSWThqySxCtUTRxS7-T8AR6YH_kjx6Yluo_JD2M0idjGopXk?loadFrom=DocumentDeeplink&ts=62.1)**):**

She completed her OB-GYN residency at the University of North Carolina at Chapel Hill and received her MD from Johns Hopkins University. Welcome to the podcast, Dr. Miele. We're so excited to speak with you today. Before we dive into syphilis testing and treatment itself, let's very quickly talk about screening. Who needs to be screened for syphilis, and how do you decide who needs to be screened? What questions should a clinician ask to determine screening eligibility?

**Dr. Kate Miele (**[**01:35**](https://www.rev.com/transcript-editor/shared/Cc7lGZ5_tR8aoZMa2xPcn0q2kEMOAKImKEWT0Nr4rbLD0qsqrxw3LQKL0lbeQW0Wupqa4SA_gwmft8nrMtteAm-Jzk0?loadFrom=DocumentDeeplink&ts=95.61)**):**

Well, first of all, I'll just say a big thank you to you and CTCSRH for having a conversation about syphilis. It's so important right now and thank you to everyone who's listening because it seems that you realize that it's really important as well. So, let's dive into screening and to your questions. So, the USPSTF, or the US Preventive Services Task Force, recommends syphilis screening for asymptomatic adults at increased risk based on both individual and community syphilis prevalence risk factors.

**Dr. Kate Miele (**[**02:06**](https://www.rev.com/transcript-editor/shared/xEpIfb6qGWXxbbATY11o9TcKgeil4etgU8545cczhRtMwf4Krf2sf8y8NLS0B2SK_lPxd4evyVFv6TFuw2cQeNFBdgw?loadFrom=DocumentDeeplink&ts=126.48)**):**

So, let's start by thinking about those individual risk factors. These vary a little based on the sex and sex partners of the individual. But for any adult, they include if someone has a history of incarceration or transactional sex work. For men who have sex with women, they also include being younger than twenty-nine. And for men who have sex with men, screening should occur at least annually if sexually active and every three to six months if at increased risk. And if someone is living with HIV, screening should occur at the first HIV evaluation and at least annually thereafter if they are sexually active.

**Dr. Kate Miele (**[**02:41**](https://www.rev.com/transcript-editor/shared/2Hf2WRBO-kiMDW09COBVD6TyDK4f2Fi6XnFH5ZsuXX9STWooEq_37GTKP106i1hMPsXO__3PDR_p4pA3-PdgzbWw1Lc?loadFrom=DocumentDeeplink&ts=161.82)**):**

And now let's talk about those community syphilis prevalence risk factors. So, I always remind myself of that metaphor about swimming with sharks. So, if my patient is minding their own business, they're much more likely to get bitten if they're swimming in a pool of sharks, or in this case, having sex in a community with lot of syphilis. So, I think most clinicians know if they're in a community with lots of syphilis. But if you don't, you can search CDC STI Atlas, again, CDC STI Atlas, and look up the primary and secondary syphilis case rate among reproductive age females in your county.

**Dr. Kate Miele (**[**03:16**](https://www.rev.com/transcript-editor/shared/Ex-YXPC4jcVbsPE8sGF20NjTRdPV3qbwkDML13REX5OiH94mYXsnuNanVLulBpnLMmyi1XhXcCJIDuAFUI0o46aGIQA?loadFrom=DocumentDeeplink&ts=196.83)**):**

In counties that exceed the Healthy People 2030 goal of 4.6 per 100,000 people, it makes sense to offer additional syphilis testing during pregnancy, as well as to actually active females generally and their sex partners. And then to go back to that last part of your question, what question should a clinician ask, I know that anyone who works at a Title X clinic is already excellent at asking questions in a welcoming, non-stigmatizing way. So, you all know to ask about the five P's: partners, practices, protection from STIs, past history of STIs, and pregnancy intention.

**Dr. Kate Miele (**[**03:52**](https://www.rev.com/transcript-editor/shared/phdAWqRqDpoahxDIfIsyCyPTXXkE7qLqYpMjIgf8jjk9XD7mKdKVMYmIiks_32Z2bzbjwSG7faF-KURsmTo0e1dOaIY?loadFrom=DocumentDeeplink&ts=232.17)**):**

And I know you're already working to talk openly with your patients about substance use, housing challenges, and a history of incarceration. So, I'll just leave that there.

**Katherine Atcheson (**[**04:00**](https://www.rev.com/transcript-editor/shared/kecQ9lIY4pbR5s1WBHBwC7hNav3r9hM1JQGjjjp-kLqeQyCM8B_GO693p6_jIQOFIIZQgUTZRs-RaWmfwieM9l5LF3A?loadFrom=DocumentDeeplink&ts=240.42)**):**

And so, because specifically we are looking at how we can address the current epidemic of congenital syphilis cases in the US with this podcast, are there particular considerations for clinicians to bear in mind when they're screening or testing a patient who is pregnant, may become pregnant, or has a sexual partner who is pregnant or could become pregnant?

**Dr. Kate Miele (**[**04:23**](https://www.rev.com/transcript-editor/shared/GujCX5Go6qPiM0-4L74g9ZFV4BG9EbK61nxnC4t32YFg4Wbt2TTr8mm_FOcd8nUxVPeJ7e9GBkIVKzJL-z30av-Ev4A?loadFrom=DocumentDeeplink&ts=263.64)**):**

So, let's just take a pause and talk a little bit about congenital syphilis first. So, as we know, congenital syphilis occurs when a pregnant person has untreated or inadequately treated syphilis, and the syphilis is ultimately transmitted through the placenta to the fetus during that pregnancy. We also know that congenital syphilis is very serious, with high morbidity and mortality for the fetus or the neonate. And there are big risks for anyone with untreated syphilis.

**Dr. Kate Miele (**[**04:49**](https://www.rev.com/transcript-editor/shared/VxqcBrcEUC9GIEmK9NBeQ8aeTrZfXbMh4h-EMhZK_nAihm0QvG714HiM82DQi6pjmukH-IHBcGjrnOAAFOmqXNvfmkI?loadFrom=DocumentDeeplink&ts=289.11)**):**

The most significant complications are stroke, meningitis, blindness, and hearing loss, as well as increased HIV acquisition and transmission. So as far as screening during pregnancy, all pregnant people should be screened at their first prenatal care encounter. For people who present for care outside of traditional prenatal care and who have risk factors for not following up, they should have syphilis screening during that encounter.

**Dr. Kate Miele (**[**05:12**](https://www.rev.com/transcript-editor/shared/lI-BWBRmhh_TZ83JNkD7wPLzHcj9CykHBYLd8BmZJUMf1OWdHSRVAAXOkpVCuSt1ytZXyE1uXhoMruZjfJYJkl904IA?loadFrom=DocumentDeeplink&ts=312.75)**):**

And so, this includes Title X clinics. So, when you have a patient in front of you who is pregnant or thinking about becoming pregnant, please perform syphilis testing. In addition, for people with high individual or community syphilis prevalence risk factors for syphilis, they need to receive screening again at 28 weeks gestation and at delivery.

**Dr. Kate Miele (**[**05:31**](https://www.rev.com/transcript-editor/shared/c1hShCeabIpBbQ4bUuVr9qdOXYef9KTL1Ah1fBs2f7-SW0V0oSl0p34zBPg0tO6SyCcRXZdf5Yd4_G3Ci8IwwNO3Mrw?loadFrom=DocumentDeeplink&ts=331.95)**):**

So, we talked about these risk factors already, but I'll add that during pregnancy, people with substance use, other STIs during pregnancy, multiple partners or new partners are at high risk, as is anyone with late entry to prenatal care or people with no prenatal care. It's also important to know your jurisdictional guidelines as some have implemented additional required syphilis testing during pregnancy in response to rises in congenital syphilis.

**Katherine Atcheson (**[**05:56**](https://www.rev.com/transcript-editor/shared/M-s2XSzpmqGbUXhQVN6qmuh4IE5dz2V9xxpP5HY0rCjvAvboLfp36sOI2GgaAhZWAAAq817qAtcJ2NNQBl54oIHTGCM?loadFrom=DocumentDeeplink&ts=356.61)**):**

And one of the really tricky things with syphilis in general is its incubation period. Can you describe the incubation period with syphilis, how that works, and how clinicians should take that into account when doing that screening and testing?

**Dr. Kate Miele (**[**06:13**](https://www.rev.com/transcript-editor/shared/8Yekb5cRytq9F6Byq7VpshmyN8XDGwdtNeFy3Epr5d37YI0FhUeJSwu_ESYDUOGdH0micKr4ogjKcxIT5nDJ0DW5_t8?loadFrom=DocumentDeeplink&ts=373.98)**):**

Yes, absolutely. So, I'll just start by acknowledging that syphilis is hard, and we're going to go through some resources at the end to support everyone as you're thinking about syphilis more. But to answer your question, primary syphilis typically develops 10 to 90 days after infection. Secondary syphilis usually occurs three to six weeks after primary syphilis. So primary and secondary syphilis are the most infectious stages and indicate recent acquisition of syphilis. They're often lumped together and referred to as PNS syphilis.

**Dr. Kate Miele (**[**06:44**](https://www.rev.com/transcript-editor/shared/FMncQCRaopjR3dl0SbokMJyv0ou2ypSLrR3SWi8Mh6Gw-K1RulHALzW71qyp0I0dPMk1P7hjeI-hMFvd-sAm7c_EQ-E?loadFrom=DocumentDeeplink&ts=404.97)**):**

Early syphilis is a term that includes primary, secondary, and early latent stages. These have the greatest potential for vertical transmission and are also lumped together for treatment regimens, which we'll get into later. So, transmission can occur at any clinical stage, but is more likely to happen with those early syphilitic infections and with a high RPR titer. And again, it's so important to talk to your patients about their sexual behaviors such as sexual partners, their partner's partners and STI prevention methods.

**Dr. Kate Miele (**[**07:14**](https://www.rev.com/transcript-editor/shared/UIIuhZt8PiQyatevve3HDh54K8kWJ2Mli9Hwy4K4WDJKBEM1laXRNaLYhxwnnZk09rF0Ji0umu-4Ez4nbpeR4izxTuU?loadFrom=DocumentDeeplink&ts=434.25)**):**

Ask your patients about risk factors such as substance use and educate patients on signs and symptoms of STIs and when to get tested. Any person that presents with STI symptoms or an STI exposure should also be tested for syphilis.

**Katherine Atcheson (**[**07:27**](https://www.rev.com/transcript-editor/shared/1n9exgDO69K-6FiJy-GTdGVESqpDSutHRR5UftmpJNQ6bqBwCwFUbq52r0D2J3vzYU_wrnzt7hI_vjdrHG_glBJaFJs?loadFrom=DocumentDeeplink&ts=447.42)**):**

And that leads us really well into our next question, syphilis testing itself. The conventional testing, which is what we're talking about today, is a two-step process that involves a nontreponemal test and a treponemal test. Can you explain the difference between these two types of tests and why both are necessary to have that diagnosis of syphilis?

**Dr. Kate Miele (**[**07:50**](https://www.rev.com/transcript-editor/shared/i-1pX9Yz9TE9lJFcPQw_boVDrPZJGPfKzU0CxRkSP82cjCjTVCgMLUs6kN8GRHk4ZxHmSB_8FW9dLN7xEnxvG5ODQ6Q?loadFrom=DocumentDeeplink&ts=470.82)**):**

Yes, absolutely. So, as you mentioned, there are two types of serologic tests for syphilis. So, a nontreponemal test, also known as a lipoidal antigen test, and a treponemal test. So nontreponemal tests, those are your RPRs and your VDRLs. They detect nonspecific antibodies caused by inflammation. They're quantitative, measured in titers, and positive and active infection. While treponemal tests, and those are your FTA-ABS, your TP-PA, EIAs and CIAs, as well as most rapid tests, these tests detect antibodies specific to syphilis.

**Dr. Kate Miele (**[**08:25**](https://www.rev.com/transcript-editor/shared/TLQ-IY1Sn2L1hl5R-LWc8uexczHI-i8W6V-iLtFT64XM93TKkQNUkLBkq_M0pzL-pEeUr1OE4-Oj-fK-Cn-AZ3pJcn4?loadFrom=DocumentDeeplink&ts=505.74)**):**

They're qualitative and remain positive forever in about 85% of people. So that's really important, so I'm going to repeat that. So, the treponemal tests, which mostly are your TP-PAs, those are qualitative and remain positive forever in about 85% of people. Importantly, both types of tests, a nontreponemal test and a treponemal test, are needed to confirm the diagnosis of syphilis. A rapid test is usually only a treponemal test. So, while you can empirically diagnose and treat based off of this result, you should ideally also send osteology for additional testing to confirm if possible.

**Dr. Kate Miele (**[**09:03**](https://www.rev.com/transcript-editor/shared/QHkLOg9h9m1XNFEGQ6iyimbIFq_Mc1WsQW1ClCl0ESuvSrFYKTovZXtuCmk5DTWBKQWwWzQqHz7a6IzD2xWSYdYV_sA?loadFrom=DocumentDeeplink&ts=543.03)**):**

And I also want to remind everyone that the diagnosis and staging of syphilis is based on so much more than current test results. We'll get into more of this later, but it's critically important to use your clinical instincts when evaluating for syphilis. And this really requires an understanding of risk factors, syphilis history, physical exam, and prior test results.

**Katherine Atcheson (**[**09:22**](https://www.rev.com/transcript-editor/shared/JAu4-u8RHtyJ5ttYnI3GKkJT1ALOtZm52Hm9FICA9zNFTCcvkotBmrF1uwzlozXzg9vnjx5V8CsoatutNFScMEZJFls?loadFrom=DocumentDeeplink&ts=562.05)**):**

And so, when doing that syphilis testing, there are two possible algorithms to use for that, the traditional algorithm, and the reverse algorithm. Can you describe them both? And is one of these algorithms preferred over the other?

**Dr. Kate Miele (**[**09:38**](https://www.rev.com/transcript-editor/shared/EdJovpFkek-TXKxeFpbeM-Y2zYkzDhH9mKdpQmXy6OZv3IJP1Rhf_PC3yOMjwJzzviCg5iTGvgfCmaaoepqTuz0gjXo?loadFrom=DocumentDeeplink&ts=578.13)**):**

Great question. So, the traditional algorithm, which starts with a nontreponemal test, usually an RPR, is the one that's most commonly used in the United States. A non-reactive RPR indicates no serologic evidence of syphilis. But remember, a non-reactive RPR does not rule out incubating or early primary infection. So, if your clinical suspicion is high and an RPR returns negative, do not rule out syphilis.

**Dr. Kate Miele (**[**10:04**](https://www.rev.com/transcript-editor/shared/XqsnFSFcQNGgSQK3KyTx_9NnNm9hK1UvxZQWFu3f8-7f2W0o8ch-L--IFFYp_mh1fBOno_t3cAAkRfVAAB5dCVPz1mA?loadFrom=DocumentDeeplink&ts=604.62)**):**

You can ask the lab to rerun the treponemal test and send off a new round of testing within four weeks. If you send off an initial RPR and it's reactive, it is followed by a confirmatory treponemal test. If that is reactive, syphilis infection is diagnosed. If it is non-reactive, syphilis infection is unlikely. And then to go through the reverse sequence algorithm, that starts with a treponemal test followed by a confirmatory nontreponemal test if reactive.

**Dr. Kate Miele (**[**10:32**](https://www.rev.com/transcript-editor/shared/Jtxr_Wd77WZpLC0By4OXguef_nA2QzPgxPwVBfnvAAmg0ho3lMwIK7d9Jg0AUyAUtvTPvLQACcMN7x9zA4OXOy-o-iU?loadFrom=DocumentDeeplink&ts=632.1)**):**

Of note, this algorithm, this does have an additional step of an additional treponemal test in people with discordant serology such as a reactive EIA, followed by a non-reactive RPR. Both algorithms work well and are absolutely appropriate for use. The reverse sequence algorithm that screens with a treponemal test first will detect more cases of syphilis, but will have more false positives, including capturing people with a history of treated syphilis.

**Dr. Kate Miele (**[**10:58**](https://www.rev.com/transcript-editor/shared/LM940fNitA6eQg-hG-v1onGI_W53sWTengjt2syQu0gq0W_suWiCe1BhKad4S_TfMIfmLqLByUTNt8VASYqFB-OP94A?loadFrom=DocumentDeeplink&ts=658.98)**):**

Because remember, those treponemal tests remain positive for about 85% of people. So thus, in populations where missing a case of syphilis is critical, such as a pregnant population or in a population at high risk for syphilis but with little previously treated syphilis, it might be beneficial to use the reverse sequence algorithm. In populations where a history of syphilis is common, the traditional sequence might make more sense.

**Katherine Atcheson (**[**11:23**](https://www.rev.com/transcript-editor/shared/zm3cT3Ob28UNQIBFAt8zTBzxnXNnXcju60qVx6i78K3Y3wMUvWGc2ylr8zKRrTwLbouczwJh4N0HPT7YEbHANTfqa74?loadFrom=DocumentDeeplink&ts=683.49)**):**

And you touched on this briefly with your previous answer, but in that testing algorithm, while reliable, it can also occasionally lead to false positives and false negatives. How do you determine what is a false positive or false negative? And what are some of the conditions that could cause false positives or negatives? And when should a clinician be on the lookout for those results as a possibility?

**Dr. Kate Miele (**[**11:50**](https://www.rev.com/transcript-editor/shared/Dpb8VSGaad_biSI68mIjd-g7KGosMhDj0Go5ugV8JkHHb5UvVtbZbeoERYZGHWtUZUx7EpnvXz-flT8P13AjonAwTys?loadFrom=DocumentDeeplink&ts=710.58)**):**

So, let's talk first about those false positives. And I just want to underscore that as a clinician, I know how incredibly frustrating it is to get those titers in your inbox and have them be one-to-one or one-to-two, and you just don't really know what to do with them. And we're going to talk about that in a minute. But the number one thing I want to reinforce is it is never the right answer to ignore them.

**Dr. Kate Miele (**[**12:11**](https://www.rev.com/transcript-editor/shared/xWEG20LA36k7cHkIcLtraWma_rdYkZ4swj45mt9Y8K_6ikPdx9erAXO0hBgLgSFVUK23O9z2q1MV_Jnwy_avgPwvbPE?loadFrom=DocumentDeeplink&ts=731.61)**):**

If you get a positive result of any type, you have to do the next thing and investigate to see what's going on with your patient. Because as we mentioned, syphilis is just everywhere right now, and we need to really do our due diligence. So those false positives can occur in a few situations. A biologic falls positive occurs when a nontreponemal screening test, such as that RPR, is reactive, but the treponemal testing is negative.

**Dr. Kate Miele (**[**12:36**](https://www.rev.com/transcript-editor/shared/qKUXHQIjRAvPxLFWD_T__Dy3xJGOzkfYQfWvN-BNnY_AY-pwnCqhl9kjP6EnhdPmCeiWtNEoapdZfBs1bOsEUX8fuls?loadFrom=DocumentDeeplink&ts=756.48)**):**

They can occur with other conditions such as malaria, leprosy, HIV, recent vaccination, IV drug use, and autoimmune diseases. Health departments often retain records for people with a known biologic false positive in the past, so it might be beneficial to reach out to them in those situations. False positives can also occur using the reverse algorithm when that initial treponemal screening test is positive and then the nontreponemal test is negative and the second treponemal test is negative.

**Dr. Kate Miele (**[**13:05**](https://www.rev.com/transcript-editor/shared/KMqGpVqMvPA2QVhKlUcLTHRImcBsShF8C5kz593bD9BZe36uAzfzi_u4mPJ_54JKNhYGYLlThX0jI4MIejIMQx5J4-k?loadFrom=DocumentDeeplink&ts=785.82)**):**

In these situations, the prozone phenomenon, which I will talk about in a bit, and biologic false positives should be ruled out. But if the suspicion for syphilis is high, repeat testing with RPR or VDRL should be performed in several weeks. Additionally, a false positive can occur in a person with a history of treated syphilis, as we mentioned, as the treponemal serologic test will often remain positive.

**Dr. Kate Miele (**[**13:28**](https://www.rev.com/transcript-editor/shared/iefG6B6RJqw9U0mv7T4NiS2nH22PW4yIUyzID_Yr09A4WKDsbPeveCH6gYF8mm_0RYndxv4O67les_GDKiSDRJdPHfs?loadFrom=DocumentDeeplink&ts=808.29)**):**

In these situations, nontreponemal tests with titers should be performed and those titers compared. So, a fourfold increase in a titer or signs and symptoms of syphilis are really concerning for reinfection. Okay, and then we're going to take a pause and we're going to talk a little bit about false negatives. So those can occur in a few situations. So, a false negative can occur in very early syphilitic infections, as I mentioned before, because it can take up to two weeks for treponemal and nontreponemal tests to convert to positive.

**Dr. Kate Miele (**[**13:57**](https://www.rev.com/transcript-editor/shared/T6j-7ijikEV3-OWmDGjVaIkiqE99eEgjFsViYpAN22yu_T3vtxA1RWRVvf2SOdgN3K-mM-IJnHjY0-6oNHcEp1Pydl8?loadFrom=DocumentDeeplink&ts=837.39)**):**

This is why it's important to perform that thorough history and physical exam to evaluate for findings or history concerning for syphilis. If there are no findings suggestive of syphilis and tests are negative, but the history is really concerning to you, serologic testing should be repeated in two to four weeks. Again, it's so important to just use your clinical instincts. False negatives can also rarely occur due to that prozone phenomenon that I mentioned. This is when there are very high antibodies present that saturate the nontreponemal test and they lead to a false negative.

**Dr. Kate Miele (**[**14:30**](https://www.rev.com/transcript-editor/shared/SeigfwEXKWzjw_HQtL0WmSIGOT4Qhm4IU5sZtDuJIi1sYgdGl4ih_R7OLWwMd4lwvg7dbyxHfXd6NWGUKd0Jr1Cp-Ls?loadFrom=DocumentDeeplink&ts=870.27)**):**

This is more common in primary and secondary syphilis when the bacterial burden is really high. And a classic clinical scenario for this is when a clinician sees clinical exam findings suggestive of primary or secondary syphilis, but has a non-reactive, undiluted, nontreponemal test. In these situations, you can request for the laboratory to perform a prozone rule-out test, and you can consider treatment empirically as well.

**Katherine Atcheson (**[**14:55**](https://www.rev.com/transcript-editor/shared/0Dfh5UVhDRnurwh-VqM4aex-70t-acekzjwplndvurx3bMzIOEVKxtRPBbwDvop3Wbl6-dgzJwvEh1cv0usfK8yvXg8?loadFrom=DocumentDeeplink&ts=895.83)**):**

So now back to the test itself and the results. How do those titers, which you've mentioned throughout the podcast, work to determine if a patient has been reinfected or if they've been adequately treated in the past? Can you describe how you interpret titers?

**Dr. Kate Miele (**[**15:14**](https://www.rev.com/transcript-editor/shared/7VqmMO3AHUTylL4C3DHxOnhJsUQLV8I1NKuqa4GwbWn3-9-xJTB0QUuV0IQPAham2D-uUCCyywt_txenm3iVO7rVcpw?loadFrom=DocumentDeeplink&ts=914.88)**):**

Absolutely. So, I know they're really confusing. I get a lot of calls and text messages from my very smart clinician friends because they don't know how to figure out how to interpret their titers. So don't worry if you're reaching out with questions, that's fine, but I'm going to give you a cheat. So, when you're looking at titers, you can determine the change in titers by looking at the denominators and dividing. So, if the titer goes from one to sixteen to one to two, this is an eightfold decrease because sixteen divided by two is eight. Does that make sense?

**Katherine Atcheson (**[**15:48**](https://www.rev.com/transcript-editor/shared/BhL13sz7LV1LmrO6hDCMm-xXfyUVuTtUgfrJAHKTo56BDpBPvv1PZVogB1-JNuxhd3YF1DrXzbkM7j31ElU-02OmIDU?loadFrom=DocumentDeeplink&ts=948.24)**):**

Yes. And how often should you check titers after someone has been treated for syphilis either in your own clinical practice or somewhere else?

**Dr. Kate Miele (**[**15:59**](https://www.rev.com/transcript-editor/shared/D9UeH-7c3tKfeCj1evunClmmHxO5Pizi1f1ZCsDWxmjEqkucsFN6GjraPiNX9GcaeTIUPzQsLKivgNW3V0aXYTlcnyc?loadFrom=DocumentDeeplink&ts=959.28)**):**

So, a person who is just diagnosed with syphilis should always have a quantitative nontreponemal test performed and should have follow-up nontreponemal titers performed within the following year with timing dependent on the clinical stage in the patient population. So, in general, repeat titers should be performed at six months and 12 months after treatment unless reinfection or treatment failure are suspected. And appropriate treatment response is a fourfold decrease in titers, although about 10 to 20% of people won't have this response by 12 months.

**Dr. Kate Miele (**[**16:31**](https://www.rev.com/transcript-editor/shared/THjiBcYPgZOgrAabuipKj820YAL7wBPjiaoQr6fDQojsJC1LCcmJ_r6LKODTDaLEKaFrb9xY3D3PLREUfKFVXzlj7KU?loadFrom=DocumentDeeplink&ts=991.92)**):**

For people without this decrease, repeat a careful evaluation, including signs, symptoms, and exposures. If there are concerns for reinfection, repeat treatment. If there are no concerns, repeat testing in another 12 months. And it's always important to consider repeating your HIV test. Now, for people who are pregnant, follow-up is a little bit more complicated, as is most of clinical care. So, if syphilis is diagnosed and treated at or before 24 weeks gestation, a serologic titer should be repeated after eight weeks and again at delivery.

**Dr. Kate Miele (**[**17:03**](https://www.rev.com/transcript-editor/shared/uWNwtdmnKZFvXqi8GtbskPyzmAxL26HezWtNLAmQ9xBjVpTdG51yVDowcBs1dp9wOy5pqxf-r4Gx5RcCZ2rKUEAgeWM?loadFrom=DocumentDeeplink&ts=1023.93)**):**

For syphilis diagnosed and treated after 24 weeks gestation, serologic titers should be repeated just at delivery. A majority of people will not achieve the adequate response of a fourfold decrease in titers before delivery, although this does not indicate treatment failure. However, a fourfold increase in titer after treatment that is sustained for more than two weeks is concerning for reinfection and treatment failure. So nontreponemal titers importantly can increase after treatment presumably related to the treatment response.

**Dr. Kate Miele (**[**17:35**](https://www.rev.com/transcript-editor/shared/nB4iRQzVbvDoDbrWTTRYOnYlX31Sqvm0S45WMq-rSsg-aqEDmjQgujnN24Wt5iaCdfsZlj_YiRWtkTQbNUjKNx7L11k?loadFrom=DocumentDeeplink&ts=1055.4)**):**

Therefore, unless signs and symptoms exist of primary or secondary syphilis, follow-up titers should not be repeated until eight weeks after treatment. Again, syphilis is hard, so please consult infectious diseases as needed. And always remember that having syphilis does not protect a person from getting syphilis again. In fact, there's a recent study that suggests that syphilitic reinfection during pregnancy in particular is three to four times higher than previously believed, which is likely a result of the increased prevalence of syphilis in communities.

**Dr. Kate Miele (**[**18:05**](https://www.rev.com/transcript-editor/shared/wyNUryf-BdSkaHf4FZlwm3xCiJoC7pIBR5jdStiCholxiYonhkeQJUXH-A6zB7M3UzHOvDdmasYh0PQPpLiFtMrkTKE?loadFrom=DocumentDeeplink&ts=1085.97)**):**

And always remember that sexually transmitted infections, again, they're dependent on those sexual networks. So, on that note, please emphasize with your patient the importance of having their partner tested and treated for syphilis as well. And again, reaching out to your local health department is so useful, especially if you do not have access to prior syphilis titers or documented treatment regimens.

**Katherine Atcheson (**[**18:27**](https://www.rev.com/transcript-editor/shared/_2SV7perSejLvJ5Zjrx7r_x1W1sd3mxmiMgHVcRbiJyBFxPER0aAI8FgeTxKqwqVQ1QnZSRbrS2IlcNSffewm6aGoxk?loadFrom=DocumentDeeplink&ts=1107.06)**):**

Another one of those tricky things about syphilis that we know is that it can live for a long time in the body. So, it's super important to know how to distinguish between all the stages, especially that early latent and the late latent stage, as that affects treatment and number of doses of medication needed. Can you describe how clinician can determine the syphilis stage?

**Dr. Kate Miele (**[**18:50**](https://www.rev.com/transcript-editor/shared/u0H0xH_kUXjHuoSZl9kUKxb6ll116LkO9Ylq6JKnVGxbwRTM2u0P8WejB56-r3YnfPY4BOJecjse8YoCSHyVmOM4nWM?loadFrom=DocumentDeeplink&ts=1130.58)**):**

So yes, just to agree with you, hashtag syphilis is hard. So latent syphilis is asymptomatic with no visible signs or symptoms. 60 to 85% of people are asymptomatic for years without treatment. Early latent syphilis is latent syphilis occurring less than one year since infection, and late latent syphilis occurs more than one year since infection. Since this is often difficult to assess based on a patient history, the duration of latent syphilis often ends up being declared as latent syphilis of unknown duration.

**Dr. Kate Miele (**[**19:23**](https://www.rev.com/transcript-editor/shared/H5sSG242qDaPQUw6JM7h6fuEHLTZsSNHsXViXcjnAinhi_puaypn-Eov1yDhvVj0LAAbmJR37XOgIaRnCprpzv7xfOc?loadFrom=DocumentDeeplink&ts=1163.4)**):**

And clinically, it's important to distinguish between early latent and late latent or latent syphilis of unknown duration because as you mentioned, treatment is different. Early latent syphilis is grouped with the primary and secondary syphilis stages with a shorter treatment. And I'll also add that 30% of people with untreated syphilis progressed to tertiary syphilis in five to 30 years. And so, this is what we classically saw described when we were all in school. So that tertiary syphilis, that's marked by those cardiovascular system abnormalities such as those including the aorta.

**Dr. Kate Miele (**[**19:55**](https://www.rev.com/transcript-editor/shared/gtFNJLJAKozCWmGm_A9pltp5UdjAwPuBR5RidgIyFH0Yg9-mpU6nuAr89CgJ0nHPQl0lMmo79lvO0QbDPkmexRVk8ks?loadFrom=DocumentDeeplink&ts=1195.95)**):**

You can also get lesions in the bone and schema known as gummas. And then I just want to underscore another important point. Always remember that neurosyphilis can occur at any stage of syphilis, that includes your meningitis-like symptoms such as cranial nerve palsies and later findings of tabes dorsalis, partial paralysis, and dementia. Since this is different from what most of us learned in school, I would like to reinforce it.

**Dr. Kate Miele (**[**20:20**](https://www.rev.com/transcript-editor/shared/f02D5xo2W3Mu2eFgMbCYm565CK-cq9s0174vevq21XKSz9QNJjyGDuqmd6EpuJOe6mciNwfb20AVHjAzdBrbTY6Fj1c?loadFrom=DocumentDeeplink&ts=1220.64)**):**

Neurosyphilis can occur at any stage as can eye syphilis and ear syphilis. So when you diagnose a person with any stage of syphilis, please do a thorough evaluation for these signs and symptoms as well.

**Katherine Atcheson (**[**20:33**](https://www.rev.com/transcript-editor/shared/Fys0jRjEQHYQ-bcq21EB_uX9CzNshmjDFjYGM9MhjY_CPiL0GP8n8y4E1HEJKNPB2Y1DsRRlEppAca6rshfVAnqbruc?loadFrom=DocumentDeeplink&ts=1233.03)**):**

And so, the amount of medication used, as we noted, is different based on the syphilis stage. Can you review the current CDC guidelines for treatment for syphilis in adult patients?

**Dr. Kate Miele (**[**20:45**](https://www.rev.com/transcript-editor/shared/UqJHkmVG9enKXZhls4fkH6aQn8qjkgwvVJ6uNI-d_TD6fGZS9EfG4-0dQQYAsDdeY_cgc_BJ1ebZXnxdPMznoaUL6fs?loadFrom=DocumentDeeplink&ts=1245.33)**):**

Absolutely. So benzathine penicillin G is the first line recommended treatment for syphilis and is the only recommended treatment option for some patients. It is usually available in the United States as Bicillin LA or long acting. Because benzathine penicillin G is the only recommended treatment for people who are pregnant in infants with congenital syphilis, it should be prioritized as needed for these populations.

**Dr. Kate Miele (**[**21:10**](https://www.rev.com/transcript-editor/shared/jkxNDcBBWfzoa3dA-BM7vqodKfB0cXf0GlHhMrU35Ho4GBGyMhaWwN_PfjH9CMwLvCwlalK1EiyvrkMuYxgAJa371CA?loadFrom=DocumentDeeplink&ts=1270.05)**):**

As such, doxycycline can be used when needed for other populations. It's dosed very similarly to how we dose it for other infections. So, doxycycline 100 milligram orally two times per day for 14 days for early syphilis and for 28 days for late latent or latent of unknown duration syphilis. When it comes to benzathine penicillin G for early syphilis, which again is that primary, secondary, and early latent syphilis, this is the one shot of benzathine penicillin G 2.4 million units intramuscularly.

**Dr. Kate Miele (**[**21:41**](https://www.rev.com/transcript-editor/shared/6_bfB0lslxjNjPKBAYUE_2wdgmNjcya_uC7wtwCaluTqTHghQCpEalnpiXnbPU1kgDxTgKvMG_c0r-IIrv5zI16R63I?loadFrom=DocumentDeeplink&ts=1301.52)**):**

Whereas for late syphilis, again, those late latent and our latent of unknown duration syphilis, this is those three shots spaced seven days apart. Importantly, during pregnancy, this treatment needs to be started as soon as possible. You need to get your patient in for a shot and not wait until the next appointment. And I have three big tips for treating syphilis during pregnancy.

**Dr. Kate Miele (**[**22:02**](https://www.rev.com/transcript-editor/shared/LTEQT2HivwCl8k4OcvDLso6obgUTeL3Wtp3BHnXX-S-iryZGvxlKxqR8gIzQTIaC14ZQiAwlOnlbdvZYX-p-5CBCBIE?loadFrom=DocumentDeeplink&ts=1322.94)**):**

So, if a patient needs more than one shot and the next shot is more than nine days after the last, you have to start the treatment course over again. And so if you have a patient who misses their seven-day appointment to get their second shot of benzathine penicillin G, just call them immediately and track them down and make it very clear that you'll have to start the treatment of course, again, if they don't come in within another day or two.

**Dr. Kate Miele (**[**22:25**](https://www.rev.com/transcript-editor/shared/UE95NduFsGyhGihX89aACBQb-6hThwqd-X9keKR3iezj4Pp-AEc1r7IMwjsmF1o9mCPnfd9YLbKS_Pxpdq2BmkLUwx0?loadFrom=DocumentDeeplink&ts=1345.26)**):**

My second tip is that penicillin is the only accessible treatment for syphilis during pregnancy. So, if your patient has a true allergy, they need to be desensitized and then treated. And my third tip is that we need to be calling our local health departments as soon as possible to let them know we have a person who is pregnant who has tested positive for syphilis.

**Dr. Kate Miele (**[**22:44**](https://www.rev.com/transcript-editor/shared/azXDiAxaa2ezRg0oxNVR6vUC6MVpRwc_vdXofSf-7sN1yedsKIserf1kDvt8--66iGIeDWlhmxS47woTA8WGDZ9QA7U?loadFrom=DocumentDeeplink&ts=1364.31)**):**

It is critical that we don't rely on automatic laboratory-based reporting because this usually does not communicate that the patient is pregnant. And with so much syphilis these days, our health departments need help prioritizing their outreach. And for all of our patients, it's again really important to help them get their sex partners tested and treated as needed.

**Katherine Atcheson (**[**23:03**](https://www.rev.com/transcript-editor/shared/16QEq5COxePMTO6EYL1-WWqMvPJqD8i2UlY-4P-14vqhsKNUNzjPvara9C7HGQQ9ES9bwBOjqrIMcYzkrzpu5MnvPSg?loadFrom=DocumentDeeplink&ts=1383.93)**):**

That leads us well into our next question. Those contacts of people with syphilis, how do you manage them?

**Dr. Kate Miele (**[**23:11**](https://www.rev.com/transcript-editor/shared/MX3Eje2GcwOefALASjaIe7Ygm39enxi3q74KOfrdAIG65cLTuUOYVe9DgYlIXSPUAcDXFuGJ9PY3hSMg6YPEpGKdOIY?loadFrom=DocumentDeeplink&ts=1391.73)**):**

This is such a good question, and I will say that most people are shocked by the information I'm about to tell you. So, if you're listening in the car and you're only half listening, I would just turn the volume up and zoom in on this section. So, people who have had sexual contact with a person who receives a diagnosis of primary, secondary, or early latent syphilis less than 90 days before the diagnosis should be treated presumptively for that early syphilis, even if the serologic test results are negative.

**Dr. Kate Miele (**[**23:40**](https://www.rev.com/transcript-editor/shared/39dXH9hDC4mTQ_5n61_d3VZcDLytQQQoaPDZOXcrtbErqJ2cSvvOTpwZYArAsrxLVeLFK7blB-ck0JFAr--gXt_xG7I?loadFrom=DocumentDeeplink&ts=1420.77)**):**

And if people who have had a sexual contact with a person who receives a diagnosis of that primary, secondary, or early latent syphilis more than 90 days before the diagnosis, they should be treated presumptively for early syphilis if test results are not immediately available and the opportunity for follow-up is uncertain. If those serologic tests are negative, no treatment is needed. But if they're positive, treatment should be based on the clinical and serologic evaluation syphilis stage.

**Dr. Kate Miele (**[**24:07**](https://www.rev.com/transcript-editor/shared/udYqltxIVj2TFP3G7Roo4kb1RuhCnC5B88q9zYurEqJw9ZorEl1SbuE5_zEwjVJYlp9pvvYJXRQwg6MzyuIKUjD7Zvo?loadFrom=DocumentDeeplink&ts=1447.89)**):**

And then in certain areas or among populations with high syphilitic infection rates, health departments recommend notification and presumptive treatment of sex partners of persons with syphilis of unknown duration who have a high nontreponemal serologic test titer, which means if it's over one to thirty-two. And that's because those high titers are usually indicative of early syphilis, so these partners should be managed as if the index patient had early syphilis.

**Dr. Kate Miele (**[**24:33**](https://www.rev.com/transcript-editor/shared/qtbiDujiguqXmU3wCqD4308D9znH-Sn-Si6fzZMg-gDxHfr2HQG9GP4tuyhg-n_1O7C8p9894V_DBXgq-JRGSUYJMC0?loadFrom=DocumentDeeplink&ts=1473.51)**):**

And then long-term sex partners of people who have late latent syphilis should be evaluated clinically and serologically for syphilis and then treated on the basis of those findings. Lastly, I'll mention that the following sex partners of people with syphilis are considered at risk for infection and should be confidentially notified of the exposure and the need for evaluation.

**Dr. Kate Miele (**[**24:52**](https://www.rev.com/transcript-editor/shared/MOHn--SHmnIdwOB8BfgJLIUPpGt3Tptm5Sxcw7jf5QyjUbJHjsT_bZCUozszwPeElIOkww3M4YB1hqYlCF7FI2dJ59g?loadFrom=DocumentDeeplink&ts=1492.8)**):**

So, people who have had sexual contact within three months plus the duration of symptoms for the people who received that diagnosis of primary syphilis within six months plus duration of symptoms for those with secondary syphilis or within one year for people with early latent syphilis.

**Katherine Atcheson (**[**25:09**](https://www.rev.com/transcript-editor/shared/AIka-ZSToXlmz_oqAaoAS4g7ik7zCdHPo21Ix7TuyLP02XPkMCwZY8yEfo3RbIPRKcGKqDvNm97huucFptdwrFHUFnM?loadFrom=DocumentDeeplink&ts=1509.96)**):**

Over the last decade, the US has seen shortages of Bicillin, that first-line medication for syphilis. And currently we're experiencing a shortage now. However, the FDA has approved the temporary import of a Bicillin substitute called Extencilline for emergency use. Would you talk a little bit about that medication and what to keep in mind when using Extencilline versus Bicillin in the clinic?

**Dr. Kate Miele (**[**25:41**](https://www.rev.com/transcript-editor/shared/VakWsOmT3SengbR8ax-JLgFZoRejGKK6AIsp54MaaDUgFm2SNmgH9lT5_OW6UtEZCQDt4Puy5W3yCxg67ii5enuEhW0?loadFrom=DocumentDeeplink&ts=1541.91)**):**

Yes. So, this is a big victory for us. For folks who are having trouble getting benzathine penicillin G in your clinics, given the recent penicillin shortage that you mentioned, there is a new supply of this medication, Extencilline, that is being temporarily imported into the United States. So Extencilline is a benzathine penicillin G injection powder for suspension. Again, it's being temporarily imported to address ongoing shortages of Bicillin long acting in the United States.

**Dr. Kate Miele (**[**26:09**](https://www.rev.com/transcript-editor/shared/nX2vZWVBd3LM_lV7EISkLDZmTZ8ZaqgSWT-bnIoZAqerA-7X8BFbJ-YxD0TrvRfh-0F1fgsWQcZV9_rmdWUqi4HF75I?loadFrom=DocumentDeeplink&ts=1569.09)**):**

But there are some important differences with the medication, though. One, Extencilline is a powder and diluent for reconstitution for injection and not a pre-filled disposable syringe like Bicillin. So, in addition, Extencilline contains soy phospholipids, which might cause hypersensitivity reactions in people with a history of allergy to soybeans. Extencilline is absolutely an option for your patients, including those who are pregnant, as has been stated by both ACOG and SMFM.

**Katherine Atcheson (**[**26:39**](https://www.rev.com/transcript-editor/shared/71_Hgqcfk5jaoDBUzltPYrQNRgE0VxGsZ_lNmd6EXumj5SN3lkoYG693Ge_YKREz0UnrxfzupVGKlSbtmK6jAui49MY?loadFrom=DocumentDeeplink&ts=1599.18)**):**

And unfortunately, syphilis has, shall we say, a rather sordid history in the US, especially with government involvement. As a federal employee and a physician, would you tell us a little bit about that history and how that impacts how we address STIs, particularly syphilis, today in the US, especially with vulnerable populations?

**Dr. Kate Miele (**[**27:05**](https://www.rev.com/transcript-editor/shared/jrXXvdt9B3VJHs8tTDyOe7dg6byQImYCIQig8aOSe9UPuJx-EFRMvDGfDZqWxDYoMpEGakRYz2Hc1pLMwsnWTUu0qYg?loadFrom=DocumentDeeplink&ts=1625.49)**):**

Absolutely. So, there is deep-rooted mistrust of the medical and public health establishment especially around syphilis, and this is due in large part to the US Public Health Service or USPHS Syphilis Study at Tuskegee, which was conducted from 1932 until 1972 to observe the natural history of untreated syphilis. As part of the study, the researchers did not collect informed consent from participants, and they did not offer treatment even after it was widely available. 2022 marked the 50th anniversary of the ending of the USPHS Syphilis Study at Tuskegee.

**Dr. Kate Miele (**[**27:43**](https://www.rev.com/transcript-editor/shared/OlVqvqDrqX1wlJaC7ZSJwlCfliHv6rHHLBiUHFLiinworJIjyNYCk18LQ8nyWDBwTqTCXOq9yLuBLFVIXVGvFGudqFk?loadFrom=DocumentDeeplink&ts=1663.26)**):**

And it's such an important time to remember the people who were mistreated and this violation of human rights. We just need to continue to recognize the presence of systemic racism in healthcare, and we consciously need to make every effort to improve this. I know folks at Title X clinics are doing a great job with this, but I just really want to reinforce the importance of holding each other accountable, ensuring equitable access for reproductive healthcare, and ensuring that we are providing timely and evidence-based care.

**Dr. Kate Miele (**[**28:12**](https://www.rev.com/transcript-editor/shared/vRsTvBVufE1Y-KZ_QyHyM1IA1TyoP-Zv-Al4ujulihESLkzD2_AHOdSLE4FZgqiQ3y3AeW5VU7sCnO07C015thMT6DM?loadFrom=DocumentDeeplink&ts=1692.15)**):**

We can do this through advocating for our patients such as supporting Medicaid expansion in states where that is not yet in place and collaborating with community-based organizations to improve the ability for pregnant people, especially those populations that are most vulnerable to access care. We also need to be talking with our patients about these disparities to establish that trust, so they feel comfortable talking with us.

**Dr. Kate Miele (**[**28:34**](https://www.rev.com/transcript-editor/shared/wXfx_YjwKtveg05PpUBuhQuaiisNw1mLljZaDrmIHEEjp7UosoDCOMEhgs-REsIxqOvmDL6XxuF-k1HzPcbZLuDi2nQ?loadFrom=DocumentDeeplink&ts=1714.62)**):**

We need to counsel and educate patients about partner treatment and ensure patients and their partners can complete recommended treatment by discussing treatment and validating patient concerns. And we need to stay up to date and follow syphilis screening and testing guidelines for all of our patients.

**Katherine Atcheson (**[**28:50**](https://www.rev.com/transcript-editor/shared/YvsySwcZ9IfA6cl-z-dslsE8Eygdgnn9Iqi8lYA2DR0ARX6ItbKuQRejcq3VLlSW07luWKhN7I6fGja9OXPw_WAH22E?loadFrom=DocumentDeeplink&ts=1730.67)**):**

Well, this has been so informative, but it's not everything there is to know about syphilis. That would take hours and hours to discuss. So where are some good places for clinicians to go if they have more questions or they want to stay abreast of current and future developments around syphilis in the US?

**Dr. Kate Miele (**[**29:13**](https://www.rev.com/transcript-editor/shared/LB7am72lO64RrqxtKr5bgEaMcmbBfXsW9y_kj2pcuG66Ir3jVbUijGFe5QWAjpRo2r7qfv6r97okGAeWutWWhHX9258?loadFrom=DocumentDeeplink&ts=1753.74)**):**

Great question. So, I have my four favorite resources that I'm excited to share with. So of course, the first thing I'm going to say is that everyone should download the CDC's STI app if you haven't done so already. You can do so by going to your mobile phone app store and just searching CDC STI. It's free and it should pop right up. Second, if you need help managing syphilis or any other STI and you can wait a few days for a response, please use the STD Clinical Consult Network at www.stdccn.org.

**Dr. Kate Miele (**[**29:46**](https://www.rev.com/transcript-editor/shared/DUmj-G3DdXWphCP4TkJkTlRYuwSty2uQwpjiaTAYSE3HnlC1ITkYJnoA0mmrbPIctfdRhwCa_llsheKWgngzaCej3oc?loadFrom=DocumentDeeplink&ts=1786.56)**):**

Again, www.stdccn.org. They have a free STD warmline, and we'll get back to you with all of your questions. Third, if you want to buff up on your STI knowledge, you can just search National STD Curriculum, which provides free educational modules for you and all of your learners. They're excellent. And then lastly, if you would like to host a talk on syphilis at your institution, you can contact your regional STD Clinical Prevention Training Center by going to www.nnptc.org. This is kind of like the STI's world version of CTCSRH. So again, this is www.nnptc.org.

**Katherine Atcheson (**[**30:27**](https://www.rev.com/transcript-editor/shared/O8WlOzvQH0OygNi3Chz0h6OTPg7CkuVNbTwoBTwx65KPWsEtcScO70tYJizNaLaOGq5hsAJ9FDfOnqAR97v03ZSmMg8?loadFrom=DocumentDeeplink&ts=1827.57)**):**

And before our clinicians return to their practice, I always like to ask our guests to share the one thing they really want our clinicians to remember. What would that be for you?

**Dr. Kate Miele (**[**30:38**](https://www.rev.com/transcript-editor/shared/43H5spZPkKYzc-90cotMUyielZdCQciMCllcHK__Y3fMk77OXZmJ1Sha7KuxP2hIhQ-PatCdO1scjZlD4voeKBzmGUg?loadFrom=DocumentDeeplink&ts=1838.67)**):**

So, syphilis is on the rise, not just in men, but particularly in women. It's being passed through pregnancy and can lead to devastating outcomes. As clinicians, it is so important to screen early and test often, and to encourage your colleagues to do the same in all settings. Thanks so much to you and to everyone for your time. I appreciate it.

**Katherine Atcheson (**[**30:59**](https://www.rev.com/transcript-editor/shared/b3wSW4bGlcXoUweJGI-dVV02hSdW6jIVC0xsBBIeMXdNT9IijfnwXdC4y4uIXkbCLtQfaoW02ZXBDOKTFuDrPaewHbw?loadFrom=DocumentDeeplink&ts=1859.4)**):**

And thank you so much for joining us today, Dr. Miele, and for sharing your time and expertise with our listeners. For previous podcast episodes, search for Clinical Chats or subscribe to our show on iTunes, Google Podcasts, Spotify, or wherever you listen to podcasts. For a transcript of this podcast, as well as other online learning activities and continuing education opportunities, please visit our website at www.ctcsrh.org. While you're there, you can sign up to receive our newsletter, Clinical Connections, at the top of the page.

**Katherine Atcheson (**[**31:34**](https://www.rev.com/transcript-editor/shared/On1yJpELMBoP4HeIvRSCNHF8P2MKSRXreAm-xkgcePT-FPKq_XFsmWxiSVStyhBks69rkrc44nfogGpmUYgzqalkkVI?loadFrom=DocumentDeeplink&ts=1894.05)**):**

You can also follow the Clinical Training Center for Sexual and Reproductive Health on Twitter @CTCSRH, all lowercase, and on LinkedIn. The CTCSRH is funded by the Office of Population Affairs to provide continuing education, training, and technical assistance to Title X grantees, subrecipients and service sites, and is supported by DHHS grant number 5 FPTPA 006031-03-00. This podcast is intended for informational purposes and does not constitute legal or medical advice or endorsement of specific products.

**Katherine Atcheson (**[**32:11**](https://www.rev.com/transcript-editor/shared/nU8ptYHdPeVCH7z6LmcctwH9PfSOU08LCJJFKnV3q5fyzqm2S3JfxTq9Z6Mqj2kpAR75JUPf8ZCaP3tW99JGLB44a9I?loadFrom=DocumentDeeplink&ts=1931.16)**):**

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**Katherine Atcheson (**[**32:39**](https://www.rev.com/transcript-editor/shared/pm6jBLDlXF73yDa-Usg6fg30j-BrSq-GmVRE3jzT-p1PPcOa9uLp6nY2GpEibM2JAKqcmKoXh2VsSlEEOBBZMHNRxrM?loadFrom=DocumentDeeplink&ts=1959.45)**):**

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