Chosen Family: Contraception for Transgender and Gender Diverse People Webinar Transcripts
October 29, 2024

Nicole Garcia:

Hi everyone. Good morning and thank you for joining us today for our webinar titled Chosen Family Contraception for Transgender and Gender Diverse People. We hope you're all doing well. My name is Nicole Garcia, health educator of the Family Planning Program at the California Prevention and Training Center. The C-A-P-T-C, under contract with the California Department of Healthcare Services, is sponsoring today's event. Before we get started with the webinar, let's go over some housekeeping slides. For those of you not familiar with the GoToWebinar platform, first please check your audio and select your desired setting to join through your computer audio or to call in through your phone. If your internet is shaky, we ask that you call in through your phone for the best possible sound. Second, please check that you're able to see the viewer screen with the slides on the left and the GoToWebinar control panel on the right.

Nicole Garcia:

The orange box with the white arrow is how you can hide or show your control panel if you don't want to see it or if you accidentally click and click it. This is how you can make it appear. Again, under that is the audio tab where you can change your audio preference at any time. Also, please submit all your questions and comments via the questions box. Today's webinar will take about 90 minutes and we'll include time at the end for the presenters to answer your questions. So please send in questions throughout the webinar and our speakers will address as many of them as possible. The webinar will be recorded and responses to questions not answered today will be sent out later to participants later on, as well as an evaluation recording and slides. Please make sure you give us your feedback. It's extremely important for us and helps guide the development of our future content.

Nicole Garcia:

I want to acknowledge that we're really excited to be working with the University of Nevada Reno School of Medicine to provide CMEs for today's event. This webinar qualifies for 1.5 CME credit and is only available to those who watch the entire webinar live today. Those who are watched the recording afterwards would not be eligible for CME credit for transparency. We want to state that all presenters, planners, or anyone in position to control the content of the CME activity has indicated that they do not have any financial relationships with commercial entities related to the content of this activity.

Nicole Garcia:

We're super excited to have two speakers today. Our first speaker is Chance Krempasky, FNP-BC, WHNP-BC, AAHIVS is the Associate Director of Medicine Education at Callen Lord Community Health Center in New York City and a professor of clinical nursing at Columbia University School of Nursing in the Certificate Professional Achievement in TGNB Healthcare Program. He has been providing care for the L-G-B-T-Q-I communities for the past 14 years. His main areas of clinical interest and research include sexual health, family building and contraceptive needs of transgender and gender non-binary adolescents and adults, anal health and cancer prevention and drug user health. He is the lead author of

“Chapter 22, contraception for Lesbian, Gay, Bisexual, Transgender, Gender Diverse, Queer and Questioning, Intersex and Asexual Individuals,” in the 22nd edition of Contraceptive Technologies.

Nicole Garcia:

We also have our second presenter, Miles Harris (he/him) a trans and non-binary identified family nurse practitioner and the director of gender-affirming care for UC Davis Health. He is also an assistant clinical professor at the UC Davis Betty Irene Moore School of Nursing and was previously the lead provider for gender-affirming care at One Community Health, a federally qualified health center in Sacramento, California. Harris's research focuses on the sexual and reproductive health needs of transgender and gender non-binary people. He has published in the American Journal of Obstetrics and Gynecology and the Nurse Practitioner as well as textbooks including Pharmacotherapeutics for Advanced Practice Nurse Prescribers and Contraceptive Technologies 22nd edition. He is an advocate for the integration of gender-affirming care with primary care and has trained healthcare students and providers across the United States. So with that, thank you both for joining us today. Chance and Miles, the mic is yours.

Chance Krempasky:

Okay, we're just waiting for our, here we go. Thanks, Miles. Oh, and you're still muted.

Miles Harris:

How about now?

Chance Krempasky:

We hear you. Thanks.

Miles Harris:

Hey. Okay. All right. Thank you for the introductions. And let's get started.

Miles Harris:

So first we want to start off with language and terminology and we really have to start here because especially for talking about L-G-B-T-Q-I-A health, which we will define momentarily if we're not all on the same page on what we're talking about, then the rest of the conversation we have for the next hour and a half is really limited. So starting here as a baseline is essential for making the rest of the time we have together productive. You'll see here defining the acronym L-G-B-T-Q-I-A, and we'll talk about all of these terms a little bit further over the next few slides. We have lesbian, gay, bisexual, transgender, and gender diverse, although that is not in this acronym here; we'll talk more about what that means Q for queer or questioning intersex and asexual. This acronym describes diverse sexual orientations, gender identities, and bodies, and having diverse sexual orientations and gender identities does not limit the range of desires that one might have regarding their current family-building desires, their future childbearing desires, or needs for contraception and pregnancy prevention. Many L-G-B-T-Q-I-A people do engage in sexual activity that could result in pregnancy, but many healthcare providers, as you are probably not surprised, might assume that L-G-B-T-Q-I-A people are not at risk for getting pregnant or for getting their partners pregnant. Furthermore, sex ed and contraception info are really infrequently inclusive of the sexual health needs and the contraceptive needs of L-G-B-T-Q-A people. And so both

healthcare providers and patients themselves are likely to have little information or misinformation regarding this general area.

Chance Krempasky:

And even thinking about adolescent health sex ed received in schools even less frequently, gender and sexuality inclusive. And with some of our adolescents considering starting hormones, these conversations really do not happen thinking about family building in the future. And so, as clinicians, it's really incumbent on us to understand the information we're presenting today so that we can talk to our patients and talk to parents about implications down the road for fertility options and contraceptive needs. And I'll just point out that if folks are familiar with our chapter in the most recent contraceptive technology 22nd edition right here, there's a really great glossary that we've adapted from Fenway's National LGBTQIA+ Health Education Center. So there are pages and pages and pages of words and terminology that we build on and that we reference. And the ones listed on the slide are just a few, but if you want a more in depth description and do a little deeper dive, you can access that either in our chapter or through the health education center.

Miles Harris:

Thanks, Chance. So part of being affirming and accurate, as you see here, is having a good grasp of some of these terms. And I'll point out later I think where especially if this is sort of new territory for you, it is more productive to focus your energy in what areas are maybe a little bit less productive that it is. I want to affirm that especially if this feels new, that the amount of language here might feel overwhelming, and this is what Chance and I do most of our waking hours and there is still going to be terminology that I hear every day that's new to me. And so helping you direct what is really essential to grasp and what is going to be overwhelming and isn't necessarily the most productive areas is going to be hopefully helpful to you as we move on. But one of the most important things that I think we want to convey, especially if this is new or fresh, are the differences between sexual orientation, gender identity, sex assigned at birth and gender expression, which is really what I'm going to get into over the next few slides. This general, the acronym L-G-B-T-Q-I-A includes diversity on all of these different spectra. And so parsing out what is hopefully going to make this make a lot more sense.

Chance Krempasky:

And I'll add in, oh, sorry, go ahead.

Miles Harris:

Oh, I also point out that as we talk about sexual orientation, differentiating that from sexual behavior. And so when we do get to talking about taking a sexual history a little bit later, making sure that we are asking separately about sexual orientation and sexual behavior, and at least in my epic view, those are totally separated out into different sections. And so not doing one in lieu of the others is really important.

Chance Krempasky:

And thanks, Miles, for pointing out and giving us a pass a little bit around language. Yeah, you're right. There are new things that I hear every day. And also language will vary regionally among different age groups. Are you working with adolescents? Are you working with adults? You're working with older

adults who may use totally different language or think that language that's used today is actually offensive. And so it's interesting, even the word queer people of my generation and younger use very in an empowered way, but folks who are older may not understand or say, oh my gosh, I thought that that was a derogatory word. And so really understanding that even across, we're all in different regions of the country and there's going to be different language. And so there may be things that we don't cover today. And it's about learning how to interact with our patients and ask in a way, oh, I haven't heard that word before.

Chance Krempasky:

Can you explain what that means to you? And doing it in a way that comes from genuine care and curiosity and being able to move forward in the visit and learn what's going on with the patient. So language we want to be using accurate language, super important when we're talking about identities, when we're talking about bodies, when we're talking about when we're doing our sexual history, when we're doing all of our anatomic, we love saying anatomic inventory, surgical inventories, but we also want to be affirming. So this is a big part of the approach to the care is thinking about how do we provide affirming care that's gender affirming. So we can give gender-affirming therapies, which we'll be talking about a bit today, but how do we have an affirming approach? And so I'm curious to kind of bring folks in, and I know that we have 400 folks on the webinar, but just hearing from some folks, I'm curious because for me as a provider, this is really important.

Chance Krempasky:

My approach to care is when I have an embodied experience of being affirmed, I have an idea of, okay, how can I maybe provide that to other people? How can I offer and provide an affirming space for my patients? And so when you think about not even thinking about our patients and going into gender affirming, but when you think about as a person, as a human being affirmed, what are some of the words that come to mind? What are some words or some phrases? And I think we have to use the q and a, you just have to type in the q and a. There's no chat function. But I would love to just hear some kind of words and phrases that when you feel affirmed as a person in the world by, whether it's by a friend or a loved one or even by a medical provider or someone else, what are some, how do you feel affirming?

Chance Krempasky:

What are some of the phrases and words that come to you? I think this is really helpful when we think about providing this kind of space for patients. So you can type in the q and a and then they will be shared with us and I'll just share some of them. So I'm just going to wait for folks to respond a little bit and maybe there's a little lag, but when you feel affirmed, how do you feel? What are some words and phrases that come to mind? So I have some stuff coming through. I love these. Welcome, safe seen. These are great. What else? Thinking about the term patient-centered.

Chance Krempasky:

Okay, seen, recognized care for love this. I hear you, I get where you're coming from. That must be really hard. So these kind of ways that we can witness and affirm people using this language when others ask questions and listen to the answers. Absolutely. So yeah, being witnessed, being seen, being heard, that's understandable, validated. I love that. So these are some of the things I think about. So I see, I feel seen, I feel heard, I feel respected. And someone said, this acknowledged, honored, and some people started to give examples and we're going to talk about those. So I want to encourage folks to keep

thinking about this and really reflect on this as we're in the room with our patients. What are some of the ways when we're not even getting into the nitty gritty, how do we affirm someone's experience, but how do we just show up in a way that is affirming? So thank you for that and that worked great.

Miles Harris:

Fantastic. Alright, so keeping that in mind that the reason we're here is to be able to create those feelings of validation, safety, trust, welcoming. Let's talk a little bit more about some of the language behind these concepts. And we're going to start out with the term sex assigned at birth. You might have heard or be familiar with terms that feel similar or synonymous like original sex or biological sex. I would like you to get out the red pen inside your mind and cross them out and really remember this term, sex assigned at birth. And here is why we are all born. We make it out into the world one way or another and someone who is usually a healthcare provider but not always looks at our little newborn body. And based on what our newborn bodies look like, we get an M or an F on our birth certificate.

Miles Harris:

But we know that what sex is way more than just what our genitals look like when we are newborns. Sex is this constellation of different characteristics that does include what our genitals look like, but it also includes our genes, our hormones, how our bodies do or do not respond to those hormones, our internal anatomy and more. But for the most part, we don't have that other information when at the time of the M or the F being assigned to us on our birth certificate. And so sex assigned at birth is a really literal term. We are literally being assigned to sex at the time of our birth. And so this doesn't presume to present any other information about knowing with certainty what our internal reproductive anatomy is or what our hormones are like or what genes we have.

Miles Harris:

And when we're talking about sex assigned at birth, we often also want to consider or bring up the term intersex. And so I think this is a good time to get to that. And intersex is a term describing people with variation in any of those different parts of the constellation. That is what we understand, make up what sex is. So these might be differences in genes, in hormones, in internal or external anatomy. And we're not going to talk a great deal about intersex today, but it's important that we remember in this discussion to include people with intersex traits for a number of reasons. But including that we don't want to assume that we know what somebody's reproductive anatomy is just because we know what their sex assigned at birth was alone. We need to have other information as well. Anything else about that Chance?

Chance Krempasky:

Just that I love this image because you can play the game like, oh, what matches what and what are the different dimensions? And so just to think a bit about different dimensions in that gender identity is someone's internal understanding versus the anatomy. And oftentimes the medical model is really stuck on genitals and surgeries and really trying to move away from this. And it's affirming for patients moving away from this attachment to body defining gender. And we're going to work on that throughout the webinar today.

Miles Harris:

So I'm going to skip down from sex assigned at birth down to gender identity, and then I'll come back to sexual orientation and gender expression. Gender identity is someone's internal barometer or their internal sense of being a woman, being a man, being a woman and a man, neither a woman nor a man or something else completely. And once we have the concepts of sex assigned at birth and gender identity, we can introduce two more words that combine those which are cisgender and transgender. Cisgender describes someone whose gender identity is what we culturally expect for someone of that sex assigned at birth. So more simply, if someone is assigned male at birth and identifies as a man, they could be described as a cisgender man. Somebody is assigned female at birth and identifies as female or as a woman. That person could be described as a cisgender woman.

Miles Harris:

If someone is assigned female at birth and identifies as a man, that person may be described as a transgender man versus someone assigned male at birth who identifies as a woman might be described as a transgender woman. I want to caveat here that we are never going to put an identity label on someone who doesn't identify with that label. So for example, there might be someone who is assigned male at birth who identifies as a woman who for a number of reasons might not identify with the term transgender. So we're never going to put a label on someone who doesn't want that label put upon them. I'm going to pop over to the next slide and come back to this one to talk more about gender identity. The first three bullets here are examples of non-binary gender identities. So we have non-binary here, gender, queer, gender fluid and agender.

Miles Harris:

I think it is sufficient to just describe all of these as non-binary gender identities and not get into the nuances between them here if that is something of interest to you, certainly there's a number of glossaries, including the one in our chapter that can help flesh those out a little bit for you. These are non-binary in contrast to binary gender identities, which could include both cis or trans and trans people whose gender identities are on sort of the ends of the spectrum as man or woman. And then finally, we have gender diverse. Here at the bottom, there isn't widespread agreement on language to describe all non-cisgender identities as a group. And so gender diverse is one of the catchalls that we use and that's what we'll use today. So we'll often use the phrase trans and gender diverse or TGD as this umbrella. You might also see trans and non-binary trans and gender nonconforming.

Miles Harris:

I think those are the most common ones, and there's some nuance between them, but for the most part they're describing the same thing. Here in the image, we see what the cis and trans root words are coming from the orientation of molecules, cis being on the same side and trans being on opposite sides. We're going to pop back to this slide to talk more specifically about gender expression and sexual orientation. Gender expression we typically describe as a spectrum between masculine and feminine. I think it's really important to remember that gender expression is by no means universal across cultures across time, across place. The example I like to use, I'm here in Sacramento, California, and here in Sacramento, a woman wearing pants would really not be thought of as particularly masculine here in 2024. But if we pop back to 1824, I would venture that a woman wearing pants would've been considered quite masculine. And so that's in the same place across a couple hundred years. If we think

across millennia, across cultures, across the globe, what is masculine and what is feminine is going to vary very widely.

Miles Harris:

Diversity in gender expression is by no means limited to trans and gender diverse people. People with cisgender identities often have diverse gender expressions, and our gender expressions as well as gender identities often vary over the course of our life or even throughout the day. Like what I'm wearing to present to you now is going to have a different gender expression that what I might play, what I might wear to go play kickball or what I might wear to go to clinic. And that's even throughout a day, much less throughout the span of someone's life. And then finally, sexual orientation. Sexual orientation is the label we give to describe to whom we feel sexual attraction. And this might be to men, to women, to both men and women, to non-binary people to nobody at all and so on. Sexual attraction also certainly can vary over time, over different scales of time, over weeks, over years, over a lifetime. Some people will differentiate sexual attraction, romantic attraction, for example, differentiating a sexual, so not experiencing sexual attraction versus a romantic or not experiencing romantic attraction. And again, sexual orientation is different from sexual behavior. Someone might have sexual behavior that we would not expect based on the label that someone uses for their sexual orientation. And depending on situation and life circumstance, that might be for many, many different reasons.

Chance Krempasky:

And I'll chime in here to add a little bit, and then there are a couple of questions. So maybe if you can just stay here. So yeah, like Miles is saying, there are some recent studies that have come out showing people they describe their sexual orientation, their attraction, and their activities. And there's some variation. People may identify as heterosexual, they may not say they're attracted to people of the opposite gender, but they're having sexual activity. So another really important reason that when we go into sexual histories that we're asking everyone, we're not profiling saying, oh, you look like an LGBT person, so I'm going to ask you these questions. It's finding a way that we become comfortable asking every single person and saying, I ask these questions of everyone and feeling comfortable asking everyone because we may ask a question and someone's never been asked before in this way, and then they feel comfortable to share because they're in an affirming environment.

Chance Krempasky:

So, this isn't only a lot of the information and the skills that we're offering today. It's not just to be used for LGBT folks, non-identified folks, but for use with everyone. So I wanted to point that out and then I wanted to read, we have two questions so far. So the first question is, what's the difference between biological sex and sex assigned at birth? And so what we're suggesting is that rather than using the term biological sex, we should not using that and instead using sex assigned at birth. And the reason why is as Miles described, when a baby's born, there's a really quick looksee and then they say based on external genitalia what the sex of the baby is. Which by the way, in some states this is changing a little bit that people can change the birth certificate. So it's not binary.

Chance Krempasky:

So that's really cool. But for now, in most states, this is still happening in a very binary way, and it's just an external visual look. So it's not looking at chromosomes, it's not looking at internal anatomy like Miles was describing with intersex conditions. There's a variety, and us clinicians, we know this, there's a

variety of conditions that the chromosomes, hormonal protection, production, internal anatomy, external anatomy, they may be different from individuals that don't have intersex conditions. So biological sex one, it's not quite accurate, it's not accurate language. And then it also really hounds for people who are trans. It really pushes on this idea, well, what's going on biologically, and there's this suspicion or this deception that's happening because what's happening biologically. And rather really acknowledging that this is an assignment that we receive from the medical establishment that is inherently very, very, very binary. So that's the first question. The second, yeah, go ahead please.

Miles Harris:

It's really imprecise. So we might be talking about any number of things when we're using the phrase biological sex, are we asking about what someone's hormonal milieu is? Are we asking about as we will get to shortly, could that person get pregnant? Could that person get someone else pregnant? Do they have a cervix? Do they have breasts? Right? And so instead of using a broad imprecise term like biological sex, trying to get some more precision in what we're really trying to get at and then asking as specifically as possible about what the thing that we want to know is. So in the case of contraception often is this person, someone who has the capacity for pregnancy. Thank

Chance Krempasky:

You. Okay, so another question. I love the mention of not putting identity labels on someone who doesn't want it. However, I want to know how would you respond to someone who may be trans exclusionary and say, I'm not cis, I'm just a woman man, said in a way to separate themselves from trans people. I'm not quite sure that I understand the question. Do you understand the question, Miles?

Miles Harris:

Yeah, I think someone asking about someone who has a gender identity that aligns with their sex assigned at birth but doesn't want to identify with the term cisgender.

Chance Krempasky:

Okay. Okay, got it. Do you have a response to this?

Miles Harris:

I think it would really depend on the context of the conversation. And yeah, that might be as much as I'm going to say about that for the moment, but potentially if this is a conversation in good faith, trying to elicit a little bit more about what it is about the term cisgender that someone isn't identifying with or is resisting.

Chance Krempasky:

Yeah, I agree. It also depends on setting. If it's in a patient setting, depending on what it is I often go into, I wouldn't push back, but it would be more like advocate mode. We see people of all different gender identities here, and this is how we define cisgender, this is how we define trans. And I think that that would kind of be more my default and not making an assumption. I think the first thing is not me automatically tagging someone is coming from a certain maybe political view, but maybe being aware of that view and just kind of answering in a straightforward way, but not engaging in any kind of dispute because that's not in the service of a clinical encounter.

Miles Harris:

Yeah, absolutely. It's

Chance Krempasky:

Difficult, but it's difficult. It's difficult, especially as a trans provider, that's sometimes some work that we need to do around safety. So I would say also backing up from even the clinical patient experience, really thinking about my own safety and what's going to support my own safety in the room. And definitely if it's something that's triggering or difficult for me, discussing it with a colleague or supervisor afterwards and debriefing.

Miles Harris:

Yeah, that's important. Is that it for questions at the moment?

Chance Krempasky:

No, we have more. Okay. You used the term transfeminine in a publication. How does that fit with the terminology?

Miles Harris:

So, great question I would say is sort of a little bit broader than saying trans woman. Somebody might identify a as a non-binary identity, but on the feminine end of the spectrum. And so it's a way to, I think, just be a little broader. Does that capture it, do you think?

Chance Krempasky:

Yeah, sounds great. There's another question. So do we straight up say, do you have a penis or vagina? How do we get this important information in the most respectful way?

Miles Harris:

Yeah, let's save that for sexual health history in a few slides, but excellent question.

Chance Krempasky:

Got it. I'll keep that. Okay,

Miles Harris:

So

Chance Krempasky:

That's questions for now.

Miles Harris:

Great. So before we get into a little bit more of the specific sexual health contraception content, a little bit of background that's needed is about what transition needs broadly. And in the most broad sense

transition can refer to any social, legal, medical, or surgical change that's done to affirm someone's gender identity. Because we are here in healthcare, we are often focused on medical interventions like gender-affirminghormones or surgical interventions like gender-affirmingsurgeries. However, it's important to keep in mind that not all trans and gender diverse people will want medical or surgical interventions, and that does not make that person's identity as a trans or gender diverse person any less valid than someone who does want a medical or surgical intervention. Some examples of social transition might include wearing clothes or makeup that aligns with your gender identity or using gender facilities like bathrooms that align with one's gender identity or activities like sports teams, summer camps.

Miles Harris:

So on legal interventions we're most often talking about use of being able to change one's name or gender marker on your legal or identity documents, but might also include being able to use your health insurance and have appropriate coverage of your healthcare needs as we expect for any other healthcare intervention. And so gender dysphoria, lowercase, gender dysphoria, so little g little D describes the distress that trans and gender diverse people may experience related to the difference between someone's gender identity and sex assigned at birth. But it's important for us to keep in mind that not all trans and gender diverse people experience gender dysphoria. And some people may transition not to move away from gender dysphoria, but to move towards gender euphoria, which describes a state of comfort or joy when feeling aligned or affirmed in someone's gender identity. So you'll see a little illustration here that from the outside, those two things might look the same to us as healthcare providers, but it might be a sort of a really different internal experience for that person.

Miles Harris:

Little G, little D gender dysphoria is different from capital G, capital D, gender dysphoria, which is what refers to either the ICD 10 or the DSM five diagnoses. Many people find many, well, many people generally, but especially trans and non-binary people, find the categorization of capital G, capital D, and gender dysphoria as a psychiatric diagnosis to be pathologizing. And so in response to this, the ICD 11, which was released globally in 2022, has changed the diagnostic language of gender dysphoria to instead say gender incongruence and move this diagnosis out of the psych section and into a section called conditions related to sexual health. There has also been a revision of the DSM five also in 2022 that helps to offer a similar clarification.

Chance Krempasky:

And can I just hop in a little bit going back. So I just like to take this opportunity to remind folks, and some people are maybe familiar with the history of trans medicine and when we think about Europe and the us, the way it was born in the west, early on, it was like there was a certain narrative that folks had to present in order to receive gender-affirming treatments. And it was very much like a very heterosexual, a very binary presentation, and it had to be strictly based on gender dysphoria. So for a trans-feminine person or a trans woman, I was trapped in the wrong body. I'm a woman, I'm attracted to men. There had to be this straight attraction, there was no queerness or gayness that was allowed and without not being able to live. And as a woman, these are all the terrible ways I feel, right?

Chance Krempasky:

And so really understanding that gender affirmation, there's an acknowledgement and welcoming of non-binary identities. There's also a welcoming of people's joy. And so really trying to move away from these early paternalistic models of transgender medicine that people, a lot of people learn the script and they played the script, but this is not actually how they felt. So understanding that there's a long, long, long history of experiences of non-binary people and people who, yes, there's maybe some level of dysphoria, but actually the level of euphoria achieved from presenting in the way they want to present is actually much, much, much greater than the dysphoria experience. And so it's really different for each person, and this is not the focus of this webinar evaluation and assessment for gender-affirming hormone therapy. But for those of us who do that, it's a skill and it's a really fun conversation to have with our patients understanding what their driving forces are for if they want gender-affirming therapies in which ones, what are their driving forces. And we will be talking about a little bit of this later when we think about contraceptive choices.

Miles Harris:

Thank you, Chance. Alright, so we are switching gears to a little bit more practical skills on talking with patients about sexual health. I reinforce as Chance said earlier, that this isn't something we switch to using just when we know that we're working with an L-G-B-T-Q-I-A patient or suspect that someone is L-G-B-T-Q-I-A based on any number of ways we make that assumption. And that in using this inclusive language, you're making it more likely that a patient will feel safe to disclose this part of their identity to you. In addition to that, any cisgender or heterosexual patient we see might have L-G-B-T-Q-I-A partners and making an incorrect assumption that, for example, a partner is cisgender when that partner is not, could result in, for example, a failure to identify a patient who is in fact at risk for an unintended pregnancy. When we assumed that that person, let's say that person's partner did not make sperm when they do many trans and gender diverse people prefer non-gendered language or less gendered language to talk about their body parts or their body functions.

Miles Harris:

So the first time I'm seeing a patient, I typically ask something along the lines of, are there any words that you want me to use or to avoid when we're talking about your body parts? And so sometimes people do offer specific things in response to that question, but regardless of what someone tells me, I always follow that question up with letting them know that if I ever do use any language to talk about their body or their body function that don't feel good to that person, I usually say, if anything s quicks you out to please, please let me know so I can make sure that I don't do it again. Because it's usually a question that no one's been asked in a healthcare setting before. And so folks might not have an answer to that right off the top of their head, but making sure that door stays open so that someone can let me know if things come up down the line.

Miles Harris:

What you see here on the slide is the top of a table that you will see can see more of in the contraceptive technology chapter. And we already talked about using cisgender instead of biological sex language. And the other one that we've provided, and as an example here is what I call the people who method. And so the example we have here is people who menstruate or people who are pregnant instead of using just a gender term like women or pregnant women, and I sort of alluded to this before, the people who really pushes us to consider more specifically or more accurately what we are really

trying to describe. So there are cases certainly where we really are specifically talking about gender identity, in which case using language about men or about women might be the most precise thing that we want to say. However, in many cases, we're using gender as an inaccurate proxy to talk about body parts or body function.

Miles Harris:

So another example we could use for this might be in response to cervical cancer screening, or I'm sorry, not in response describing cervical cancer screening. So if we're trying to just make a really broad statement about population screening for cervical cancer, it might be common to see something like something, say women need cervical cancer screening, which isn't entirely accurate, right? Many people who need cervical cancer screening aren't women and many women don't have services. So in this case it might be more accurate to say women with services, I'm sorry, people with services need cervical cancer screening. However, if you are doing research about trans men who need cervical cancer screening, then of course the description of gender in that is important to the accuracy of what you're saying. Other uses of less gendered language might be alternative phrases for anatomy that to us as healthcare providers sound sort of informal or less anatomical. And so it's important that with the patient, you're clear about sort of what that term is being used for. But an easy example might be seeing chest instead of breasts or breast instead of chest talking about internal anatomy or external anatomy broadly without using specific anatomical terms. Any others you want to throw out there, Chance?

Chance Krempasky:

No, but I have, can I bring some questions while we're in here? So someone had a question that I'm happy to answer. So individuals with birth sex as male, but who are trans. So I'm assuming we're talking about men, trans men or trans-masculine people, can they receive cervical health exam, cervical cancer treatment? And the answer is yes they should. So of course, following our guidelines, so people at average risk co-testing primary, primary screening, primary HPV, high risk screening starting at age 25 is the recommendation. So average risk, start them at 25, primary screening. And we are getting more and more evidence and data and hopefully we'll have some recommendations soon about cervical or at least vaginal HPV self-swabs. And so yes, these folks should be screened and we can offer them by pelvic exam. So a clinician can do the high risk HPV testing, which would if abnormal reflex to cytology or we could offer self-swabbing.

Chance Krempasky:

And the caveat with the self-swab is that generally a self-swab , the idea is that the person, the patient taking the sample, it's unlikely they're going to sample the cervix, but the vaginal walls do hold H-P-V-D-N-A, which is a surrogate for a cervical sample. So we would see, we get the HPV test that way, but generally we are not going to have appropriate adequate samples from the cervix. And so we wouldn't really be able to do a reflex test on this. We can try it, but the lab will usually say inadequate cervical and endocervical cytology obtained. And so I always tell my patients when I offer them a self-swab that if it's positive, I explain to them the lab can look for cervical cells, but they probably won't find them. And then you would come back in and I'd have to do basically a pap smear.

Chance Krempasky:

So I give folks a heads up and say that you can do this on your own, but if it's abnormal, I'll have to repeat it. And so give them the option, and then we'll talk a little bit later about if we have time about

some trauma-informed skills. So the other piece to this is the billing piece, which is there's the KX modifier that can be used for trans folks. I just got, this actually just happened me last year. I had my annual exam and I got this huge bill. I got a thousand dollars bill saying that this exam was not indicated for you. So I had to get on the phone with the insurance and make sure that they knew that I still have a cervix and I need this screening. And so I always tell patients, if you get a bill, don't pay it, bring it in and talk to us about it. Because some people get so scared about medical bills, they just pay it and they don't understand that a billing department can just get on the phone and explain. But there's the KX modifier can be used. Is there anything you want to add, Miles?

Miles Harris:

I was going to talk a little bit more about anatomic inventory or surgical inventory before we,

Chance Krempasky:

Of course.

Miles Harris:

Yeah. And again, in response to the earlier question about how do we ask people what parts they have? That's a great question. And I think there's a number of different ways to do it. If it's included in your EMR, it's often in a section called anatomic inventory, which I don't know, it's a little creepy, right? It just sounds like we're, I don't know. But that's what we call it. Hopefully someone will invent something that sounds better soon. But it's a section of the EMR where we literally, it says breasts, vagina, cervix, penis, testes, prostate, did I miss something? Ovaries? And there's like a yes no button. And so there's a number of different ways that we can ask that. If there is a pre-visit paperwork that a patient fills out, I think the easiest way to do it is to just have it on there and people say yes, no, yes, no, are able to complete that ahead of time on their own.

Miles Harris:

And then another way that I sometimes do it is sort of like if I've already sort of done the surgical history and talked with them about their side of birth and gender identity and so on, I might choose what those answers are based on sort of the interactions that we've had so far, and then turn my screen around and say, Hey, based on what we've talked about so far, this is what I understand your anatomy to be. Can you tell me if I got that right? You could also really just say, read each one and say, can you just say yes or no for I have these parts or not? So those are some different options for ways to do that section.

Chance Krempasky:

And just a couple questions. Would you ask the body parts question? For example, prior to starting an exam for a well visit? Yeah, if I were doing an exam, I'd want to ask about body parts. I want to know which screenings we need to do. If someone's had a hysterectomy and they don't have a cervix, I wouldn't need to think about doing any kind of cervical screening. And that's all part of getting to know the patient and asking, which language do you want me to use? Which language do you use? Like Miles was saying things like if I say anything that doesn't feel right, please let me know. Someone said I had a teenager with male sex assigned at birth. I was not sure how to ask about sexual orientation. The patient was using makeup. I didn't want to be rude. What's the best way to ask that for young people?

Miles Harris:

There's a lot published about this, and it definitely depends on the age and the developmental stage of that young person, but for an older teenager, let's say 15, 16, 17, those folks are going to be familiar with language most likely about sexual orientation. Or you could ask it less in what label do you use, but more of to who you're attracted, what are the genders of people you're attracted to if something like that.

Chance Krempasky:

We have a lot of questions and I'm just going to kind of focus and I'm sorry if we don't get to your question. We're doing our best. Someone asked, what do you suggest for the ICD on cervical cancer screening? I frequently encountered issues. I don't know. I don't get a lot of rejections, so I just do screening for cervical cancer and I also generally will do gender incongruence. And so that will help to support the KX modifier, which someone ask, is it only for billing California? Nope, that is national. And then someone asks, can you restate the reason the self-swab sometimes isn't as accurate? Well, when someone's doing a self-swab, right? So if we think about the primary HPV screen, so the primary screen when it's done by a clinician is a sample is obtained from the cervix. And generally, when I do a primary screen, I use the broom, which is the little kind of thing; what do people call it?

Chance Krempasky:

The, oh my gosh, the pitch fork, I don't know, people call it different paintbrush, the paintbrush looking thing that you can use. And just twirl 360, you can get an endo cervical and an ecto cervical sample from the paintbrush at the same time. So when I do a primary screen, I use that, right? So I'm getting cytology cells, but the first test they'll run is the high-risk HPV; if that's positive, there is little reflex to cytology. So that's the test I do. When a patient is doing a self-swab and they're using a small Dacron swab to gather Dacron polyester to gather a sample, what's the likelihood that they're actually reaching the cervix? We don't know. And so I really tell them to just make sure they're sweeping the walls of the vagina because whatever HPV DNA is present in the cervix will be detected in the vaginal walls. And so it's unlikely they're getting a cervical sample is the reason why it's not as accurate for a primary screen. So then if it reflexes to look for those cervical cytology cells to actually see the shapes of the cells and look for dysplasia, if they've just gotten a vaginal sample, that's a vaginal cytology, that's not cervical cytology. And okay, and then the next question we're going to talk about later about pregnancy and testosterone. So we're going to keep moving.

Miles Harris:

Awesome. Okay. My last slide is about bodily autonomy. I'm going to be fairly brief. I want Chance to have enough time for his slides. But in brief, threats to contraception and abortion access for all people are integrally connected to attacks on gender-affirming healthcare for trans and gender-diverse adolescents and adults, marriage equality, and the way people have sex. At the same time abortion bans take hold across the country. There is a growing abundance of legislation that prohibits transgender-diverse adolescents, as well as their parents and transgender-diverse adults, from making decisions about their bodies and access to lifesaving healthcare services. Conscience clauses have been used both to limit contraceptive care as well as gender-affirming care as well. Similarly, people are deputized to surveil their neighbors and criminalize both people seeking abortions and people seeking gender-affirming care as well as the people who assist them in that care and the clinicians who provide those services. All of these threats further add to both the personal and the community trauma for trans and

gender diverse people. So we just want to underline the importance of trauma-informed care as a standard of practice for all L-G-B-T-Q-I-A people. But as we said, we're not making assumptions about who are L-G-B-T-Q-I-A patients are. So really this is sort of a plug for trauma-informed care as a part of universal precautions for all patients.

Chance Krempasky:

So thanks Miles for continuing to be the slide person. So, contraceptives for trans and gender diverse individuals who are assigned female at birth who need contraception. Well, let's think about this so trans, and you'll see us using different acronyms so that we become agile with these different words in this different language. So trans and gender non-binary people, they may choose to use testosterone as part of gender-affirming therapy. Again, not all trans masculine people choose to use testosterone, but some do. They may also have a uterus and ovaries and be capable of achieving pregnancy. This is why we do our anatomic interview to see which anatomy is present and are they able to become pregnant, and they may also engage in sexual activity, which can result in pregnancy. So my favorite question when I'm doing a sexual history is what are the genders and bodies of your partners?

Chance Krempasky:

So I ask that to really cover that as a catchall to say, I see you. What are the genders of your partners? Who are you in a relationship with romantically and sexually? And then which bodies are present? Because even if they tell me, my partners a cis man, well, this cis man might have had a vasectomy, and so they may not be at risk for pregnancy or their partner might be a trans woman. And I can't make any assumptions about what someone's body is. Have they had surgeries? Are they on hormones? So this is why it's really important for us to be comfortable asking these different questions about gender, anatomy, and sexuality. There's the other classic question of what goes where. So when you're having sex with your partner, how do you do it? So they may be having sex with someone who's a sperm-producing partner, but maybe their parts don't go near anywhere that they could become pregnant. So that's also an important question. Go ahead.

Miles Harris:

Oh, I was going to say, I don't know if we ever defined afab. So we use is afab and amab as acronyms for sex assigned at birth, so assigned female at birth, afab amab assigned male at birth. In this side, we use both TGD and TG and B, trans and gender diverse, and trans and gender non-binary interchangeably for the purposes of this presentation. Ready for the next slide?

Chance Krempasky:

So contraception for trans and gender diverse individuals assigned female at birth. And we're mostly focusing on individuals assigned female at birth because the contraception is the main clinical piece, and this is contraception for folks assigned female at birth. So, it's important to know that the use of gender-affirming hormone therapy does not guarantee infertility. So someone asked earlier about the data on testosterone and pregnancy, and guess what? People, transgender and gender diverse people assigned female at birth can still get pregnant even if they're on testosterone and haven't had a recent period. And we'll look at that data in a minute. For all trans folks, trans-masculine and trans-feminine, long-term effects on fertility are unclear. We don't have a ton of data, but it may reduce future fertility or result in infertility. I will say now that we know that it looks pretty, it's pretty clear that for trans-feminine

people, people assigned male at birth that are using estrogen and hormone blockers, that sperm motility and volume are decreased.

Chance Krempasky:

Concentration and motility are decreased. And so it seems pretty safe to say that fertility is compromised and transfeminine people, and it seems to be the longer people are on hormones, the less they're able to get someone pregnant and the less active their sperm is. So this is important to know, and we can use this in our counseling and also more. We need more data. We really need more data. Whereas the general consensus right now is that for transmasculine people, it's generally folks can stop hormones and become pregnant or be able to use their eggs. For all patients considering starting hormone therapy, they should be counseled about options for fertility preservation. And it's important to understand that this isn't economically viable for most of our patients. Most people in some states, there are special funds and grants that people can get. I remember, I think it was Nebraska or Kansas, there was some special trans fertility fund that people could access.

Chance Krempasky:

Here in New York, there are certain insurance plans that are required to cover through a loophole for fertility preservation for folks who are on hormones. But across the board it's pretty expensive. And this is compounded with, especially for younger folks, even if they want to do it, it may be difficult to navigate the system. It may be they may not have the right coverage for it. Some young folks are lucky and their parents are really supportive and actually will help pay for this. But it doesn't mean that it's an easy process so often. So this usually not always entails sopping hormones, and that can lead to dysphoria and discomfort in addition to the other discomforts that can come from fertility preservation and those processes, which we don't have time to get into all the nuts and bolts of that today. We're really focusing on contraception. But just for an overview for counseling, next slide.

Miles Harris:

I'm going to do a couple questions with regards to a request for seeing the sexual health history questions written down somewhere. It's not in the contraceptive technology chapter, but it is in a 2020 paper on which Chance is the lead author called Contraception across the transmasculine spectrum, and it has a bunch of suggested sexual health history questions. So I'd point you in that direction for seeing that a question of someone who had thought prior to this, that once someone was a amenorrheic on testosterone, that they wouldn't be at risk for pregnancy, which you write is intuitively a common assumption, especially for patients too. So realizing that this, if it's new information to you, how many patients, it's also going to be new information for. So getting more into contraceptive method options in the next few slides. But there is not a specific period of time that if someone has been amenorrhea, then if this is amenorrhea from testosterone that they are not at risk for pregnancy. And I don't think we're going to be able to get to hormone blockers and fertility today. I think that's out of the scope of what we can get to, but certainly that is something we can find a good resource for to share with you after.

Chance Krempasky:

I might get into it a little bit, but I would recommend for the person asking the question, the *WPATH Standards of Care 8* in probably the sexual reproductive health chapter has a really good description of current data on investigational and approved methods. So if we don't get to it today, check out *WPATH Standards of Care 8*. You can just, maybe we can send a link for that to Nicole and Nicole can share it

with folks. But if you just Google though you have Standards of Care aid, it's available for free as a pdf. So which methods are appropriate for trans and gender diverse individuals assigned female at birth? Well, no methods are contraindicated specifically due to identity or gender-affirming hormone use. So everything's on the table. Great news, everything's on the table. The comparative efficacy that we're all familiar with is the same as it is in use by cis women comparative efficacy.

Chance Krempasky:

So all the data that we have right now on contraceptive efficacy, remember, is from studies in cis women. So we know that, for example, LARCs are more effective than other methods. However, does testosterone have an additive effect in terms of efficacy for contraception? We don't know that we need that research. So if there's any researchers out there, great idea for you. However, various aspects of contraceptive methods may uniquely impact trans patients who are assigned to female at birth. And we're going to look a little closer at that in a moment. And you all also have that. That's the handout that's available that you can take a look at. And that's also from our paper, by the way, and so we'll dig closer into that in a moment. Next slide. So this is it. This is the moment. So when we look at the overview of contraceptive methods with trans-masculine specific considerations, this was so fun for us to create because it's really an amalgamation of all the counseling that we do and the way that we talk to our patients about their desires for a method, and also thinking about where they may have different sources of dysphoria.

Chance Krempasky:

So when we talk to our patients and we say, what are the most important things for you in terms of starting a contraceptive method? We can kind of go into that. In addition, I want to say that we use in the same, that we may do this for cis patients, but we often use contraception in transgender diverse patients in non-contraceptive ways. So someone says, I'm on a low dose of testosterone because I'm on a non-binary dose. I don't want to go any higher. I'm happy with my testosterone dose, but I'm still having a period. It's terrible. I want that to go away. I really don't want to have a period. Then we can pull out our resources for contraceptive methods and we can think about, okay, which are the methods that we can use to induce amenorrhea? And then we can talk through with our patient the different advantages and disadvantages.

Chance Krempasky:

So for example, someone's on a low dose of testosterone, they come to me, they ask for recommendations for other ways that they can stop bleeding. We talk through it. And if they're looking for something that's also effective for contraception, then that may impact the method we choose depending on efficacy. If this is someone who has a lot of dysphoria with their genitals and with a pelvic procedure, maybe an IUD is not the best for 'em. They may decide no way. It's going to be hard enough for me when I need to get a pap smear to do that. No way an IUD. But yeah, I'll take an implant in my arm. That sounds great. There's rates of amenorrhea. I'll take an implant in my arm or I'm okay with a Depro Provera, long-acting progesterone depot, progesterone shot. I'm down with that coming in every few months for a shot.

Chance Krempasky:

I come in for my testosterone shots or I can do the subq depo at home. I have a lot of patients that during the pandemic transition to subq depo instead of coming into the clinic for their shot and they

love it. And there's really high rates of amenorrhea with that. Of course, talking about the other potential side effects with any method. So thinking about that for mere, if someone says someone maybe has not had chest surgery and they say, my breasts, anything touching my breasts or any discomfort with my breasts is really dysphoric than doing counseling around methods with progesterone saying, you might have some chest tenderness when you first start this, let's talk about it. Or if they're like, absolutely no way, then maybe that's not a method for them to try. So thinking about all these different aspects, additionally, and this comes up sometimes with our cis patients, particularly with adolescents who are starting contraception autonomously without parental consent, which is not required in states, we can talk about privacy and concealability.

Chance Krempasky:

So I've had patients who are not out as trans to their roommates and they're like, I can't have maneuvering in the refrigerator, or I don't want to have a pack of pills that could be found by someone. So thinking about which are the methods that are maybe an IUD or an implant that someone's not going to see if you're worried about someone going through your things. So I really love this chart and I encourage people and invite people to go through it. And if you look up the paper, there's long description going into all these different considerations with your patients. So we'll go to the next slide.

Miles Harris:

Yeah, I don't know why chest and breast tenderness is blank for pops on this chart, but I think it's not blank on the Oh, weird. Yeah, it's just

Chance Krempasky:

Whatever. Not in the paper. Not in the paper. That's weird.

Miles Harris:

Yeah. Oh, Chance was talking about amenorrhea rates for various methods, and that is also in the *Contraception Across the Transmasculine Spectrum* paper. So you can see not in relation to testosterone, but for the contraceptive method only, what the various amenorrhea rates are for that method. So that might inform your counseling with a patient who is specifically trying to achieve amenorrhea with that method. There isn't data for those methods in conjunction with testosterone and amenorrhea rates, and that would vary by testosterone delivery method, by testosterone dose and so on.

Chance Krempasky:

Okay, so a lot of this we've already gotten into, but just specifically thinking about contraception for lesbian, gay, bisexual, and cisgender women, sexual orientation is not necessarily synonymous with sexual behavior. So there is data showing that people, women may identify as lesbian but do have sex that could cis men that could lead to pregnancy. And also, lesbians may be having sex with transgender partners assigned male at birth that are still sperm-producing. So just because someone says they're lesbian, we can't make assumptions that they're only partnered with cis women. Next slide. So fertility counseling for trans individuals. So just to make the best use of our time, I'm not going to go through all the stats, you have these available, but the overall point is that there's a lot of miseducation of trans patients in terms of their fertility options and their risks, and there's a lot of miseducation by medical providers.

Chance Krempasky:

So let's not be those medical providers. So people are told by their providers that hormones act as a contraception, which is not true even if we know the estrogen and blockers can decrease fertility for trans women, that's not a complete contraceptive effect. And it's not FDA-approved as a contraceptive. And many retrospective studies from fertility clinics show individual cases of fertility resumption after discontinuation of hormone therapy, which is reassuring. But it's really important for us as clinicians to review options even if they're not feasible. It's important to counsel people with the consciousness of what may be accessible to them and help to just set expectations and balance conversations of what is possible versus what is next slide.

Chance Krempasky:

So for trans-masculine people, am I even fertile? Is it even possible if they have a uterus, if they have, or actually if they have ovaries and eggs, maybe they've had a hysterectomy, but they've retained their ovaries. We know that people can get pregnant even when they're pregnant; some people are still having bleeding on T and can get pregnant. There have been studies showing that maybe there's ovulatory dysfunction, but there can be breakthrough ovulation that happens even for people on testosterone more than six months. And so sometimes it's proceeded by bleeding, sometimes not. So again, there's no way to know. But testosterone is not an FDA-approved contraceptive, and testosterone is also a strategy. So it's important to counsel patients if they're taking testosterone and they become pregnant, that it may result in a urogenital sinus which wouldn't necessitate surgery for the fetus. Next slide.

Chance Krempasky:

And for folks with testes and sperm, am I even fertile? Well, we don't really have any great longitudinal studies on progression, so oligospermia with hormone therapy initiation, but we do have studies showing a wide variety of the effect of hormones on spermatogenesis from showing What they do is when an orchiectomy is done, they look at the sperm activity within the testes. And so they've seen different impacts of hormones on spermatogenesis, but for the most part it is impaired. And we also know that storing hormonal treatment at a younger age may be associated with decreased germ cells in the testicle. So that's another thing to think about. Next slide. And again, like I said, in the WPATH standards of care eight, there's a lot of information on recommendations for counseling of adolescents who are doing or considering hormone blockers and fertility counseling. So what else can I do?

Chance Krempasky:

I mean, the first thing I'm going to say, also, I should have said this before in terms of looking at folks with ovaries, age, age is still the biggest factor. So we know that after 40, we look at 35 to 39, there's a decline. And then at 40 there's a huge decline in infertility. So really age is still the main driving factor for folks, for trans folks and folks on testosterone. So thinking about that in terms of folks fertility planning, and so we say the same stuff we always do, talking about exercise, minimizing intake of alcohol, other substances, all the kind of prenatal stuff. So thinking about the role of early AMH to help ballpark around the assisted fertility measures for people who produce eggs, we know that for people trying to do basal body temp checks and service checks, cervical checks, t impairs the accuracy because it changes the whole hormonal and mucosal environment with atrophy.

Chance Krempasky:

So those aren't going to be as effective for someone who's taking testosterone. The washout period for discontinuing testosterone prior to pregnancy is recommended, but it's getting shorter. And in fact, there are some studies that have even shown, and I'm trying to take a look because I just was looking at the study, people have been able to retrieve eggs while still taking testosterone and while also on adolescents on blockers, retrieving eggs. So it is possible. So that's something for discussion with reproductive endocrinology and infertility specialists. However, like I said, during pregnancy, testosterone is teratogenic, and it can virilize an excess fetus that has ovaries, resulting in a single urogenital sinus. It can produce a virilized clitoris phallic. And again, these are all things that this is within the first trimester, and these are things that will be more and more up for discussion in the days to come. In terms of protocols for discontinuing and pausing testosterone when trying to become pregnant, trying to become pregnant, and for sperm-producing people at home, sperm testing is possible. So it's recommended that folks who produce sperm stop hormone therapy for at least 90 days. A motile sperm count can help ballpark which methods would be successful. So over 15 million, any method, consider IUI for between 10 and 15, less than 10 probably need IVF.

Chance Krempasky:

We want to thank folks, and we have just a couple of minutes for any questions that you see, Miles. And again, we know we covered a ton in this, even this hour and a half, so we want to recommend that folks take a look at the WPATH standards of Care Eight. There's a lot of great data that's recently come out around fertility and pregnancy, and I'm really looking forward to continued guidelines and research. And I mean, I think another thing, one other thing I want to share is that when we poll trans folks about family building, there's really a mixture across the board. Oh, and Miles, we can see your Google. I don't know if that's okay. If you want to show us that. We see a variety of responses across the board and some people desiring genetic offspring and many wanting to do adoption. So it's just important for us to talk about even the barriers and expenses around adoption because that can be really difficult for single, for queer, for trans parents. So, really understanding and being able to connect folks wherever we are in our patients with the right organizations and with the right resources to make their family-building dreams as much of a possibility as we can and do what we can to continue to advocate for this access. And again, in some states, it's a lot more accessible than others in terms of what the options coverage are.

Miles Harris:

Thank you, Chance. We have just a minute. We have one minute to who left. So I'll just do a couple of the questions we have here. Sorry, if we don't get to you with regards to at home sperm testing, there's a number of commercial companies that'll do this. Somebody depending on the state you're in, may or may not have insurance coverage for this. So certainly I always want people to try to use their insurance if they can. But again, a number of companies when you mail it in on some sort of coolant with regards to asking folks how far along they are in pregnancy, I presume that this question is thinking about someone who is perhaps amenorrheic from testosterone and or was amenorrheic at the time of conception, even if they weren't still on testosterone. And so it can make guessing how long you've been pregnant, harder if you didn't miss a period. And so this person suggested the phrasing of when do you think you might have become pregnant? I think that's very, very reasonable. But certainly I think thinking of our patients who have an unintended pregnancy on testosterone and recognizing that somebody is more likely to perhaps not recognize that they are pregnant for longer because they didn't miss a period and because they perhaps didn't even know that pregnancy was possible on testosterone.

Chance Krempasky:

Thank you so much, Miles. We want to thank everyone so much, and we are sorry; I know we had a lot of questions, and we weren't able to get to them, but we hope that we imparted you with a lot of knowledge and, at the very least, a really nice base to start with indefinitely. If you're interested, you can view our chapter in contraceptive technology. You can read a variety of papers that we've published and you can continue to learn more. So thank you so much.

Nicole Garcia:

Thank you both so much. This concludes our webinar. Please make sure you fill out the survey that'll appear once this webinar ends. Your feedback is extremely valuable in guiding what kind of content we want to provide, and we will be sending out all the references that they both mentioned. The article and the Figure 6 handout again, as well as the slides and the recording. So we'll be sending all of that in a follow-up email. And I just want to thank our wonderful speakers again for giving such an amazing presentation. We hope you enjoyed it. Thank you all for joining us today, and have a great rest of your week. Thank you. Bye.

Chance Krempasky:

Thanks all.