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ECHO: PROVIDING HIV CARE TO TRANSGENDER AND GENDER EXPANSIVE PATIENTS

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[video transcript]

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Thank you. So I'll move on to the didactic portion I'll focus on providing HIV care to transgender and gender expansive patients. As Mark has said, I am the LGBT medicine fellow here at Sinai and I rotate through different specialties and clinics. So learning objectives for today we'll talk about the epidemiology of HIV in transgender and gender expansive populations, understand some of the barriers to HIV prevention, treatment and care for this patient population. Discuss the physiologic effects of under on therapy for both trans and trans women and understand strategies to incorporate trans gender, potential health care into your clinical practice. So I'll start with a quick general case. 42 year old African American transgender woman comes into your office seeking routine of care after recently moving to the area. She medical history consists of using gender affirming hormone therapies since the age of 22, and no gender affirming surgeries to dates. She's currently on or estradiol, two milligrams BID, PO and spironolactone 100 milligrams twice daily. She has sex with cisgender men has never had an STI before and she's unaware of her HIV status. As part of a routine exam, she has received a point of care HIV test that was reactive, her medical provider wants to start her on ART immediately. So as providers, what should we know about HIV infections and transgender populations? And are there any additional challenges that we need to be aware of in providing HIV care and treatment to this patient population? So I'll just start off it's very basic, but I like to use this gender bread person diagram to differentiate between gender identity, gender expression, biological sex and sexual orientation. As you can see from the illustration, you have four components to this, this gender person, so the entity do you identify as a man women non binary, a gender, etc. Gender expression is basically how you express yourself at and to the outside world, you wearing more feminine clothing or masculine clothing, or somewhere in between biological sex, specifically related to the anatomy of, of the body. So were they born with external genitalia, internal or intersex and lastly, sexual orientation, are you attracted to the same sex I you identify with or the opposite, or both, or none or all? So this is very important to understand that gender identity is very different from biological sex. It's very different from sexual orientation, and very different from gender expression. So what it means to be transgender is someone who identifies if it's a transgender woman, they were assigned male at birth, but they identify as a woman, or a feminine gender transgender man is a person who was born as a female, assigned female at birth, but they identify as a male or masculine gender, gender queer gender, non-binary or gender diverse is anyone who identifies as neither male or female or combination of both. Anyone who presents a non gendered way, and cisgender is someone who is non transgender. So how approximately 0.4 to 0.6% of adults are transgender. The percentage might be might seems seem low. But if you look at the actual number of people who are transgender, you'll see that about 25 million people in the world identify as transgender or gender diverse. In the United States, it's anywhere between one and 1.4 million adults. 1.8% lessens between degrades of nine to 12. So those around high school age do identify as gender expansive, and it's important to know that gender is a spectrum. So it's about 30. A significant number of those who are transgender also identify as non-binary.

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This way, there's a lot of stigma and discrimination, as you guys already know, among transgender and gender expansive populations. There's a high rate of discrimination in the US about seven years ago, more than half of transgender people experienced discrimination, at least one form or another, almost half of transgender. Individuals experience sexual or physical assaults, about a third experience healthcare discrimination, and with about 23% of them avoiding health care altogether. 15% who are unemployed, and 29% of them living in poverty were mistreated at work or fired because of their gender identity. 30% have reported ever being homeless so there's definitely some housing discrimination, social stigma as well, family and friends of about reject of fear of rejection and school bullying and harassment leading to a higher dropout rate. In 2020, there was 44 documented transgender people who were murdered in the United States. And as of last month, it has already reached 43, with two months left to go on the year, and the estimates will just, it's probably just going to get even higher this year. So it is an ongoing problem. There are specific vulnerabilities as that affects trans populations, particularly those with HIV, you have the structural kind of discrimination based on social exclusions, like housing and employment, legal status, mistreated or denied health, appropriate health care and medical settings, poor access to prevention information, like PrEP, and PEP, and also other primary care access. economic vulnerability, like I mentioned before about the workforce and violence and victimization. Also, based on some of the hormone gender affirming hormone therapy that they might be on, there might be some biological vulnerabilities to the ARTs that are being prescribed to these patients. And also individual vulnerabilities as well, like inconsistent condom use substance, co-comminant substance use low self efficacy, the need to perform sex work in order to make a living, HIV prevention being a low priority for some of these individuals, and mental disorders also very prevalent. And as you know, mental illness can become a strong like receiving care for HIV, about half transgender individuals have mood disorders and almost as as almost as high as 40% of them have had suicidal ideations and suicidal attempts. So it's definitely it's a, when you're seeing a transgender patient with HIV, it's important to keep in mind that all of these vulnerabilities and barriers may be present in trying to engage adequate health at get viral suppression to these patients. This is just a kind of outdated map about the prevalence of HIV in transgender people globally. As you can see, most of this map is white, which means that there is no information available in these counties. And this just shows you that there's a gap in data that properly illustrates the prevalence of HIV in transgender populations. Like I said before, 25 million transgender adults are prevalent worldwide, global prevalence is 19% among transgender women, and they transgender women particularly are 49 times more likely to live with HIV. So that's definitely something that is a big red flag. And that's something that we definitely need to address. As you can see here, the CDC has reported that about 2% of new HIV diagnosis were among transgender people. And if you stratify that data, you can see that race has a huge component in this in this rates, you can see that most new HIV diagnoses among transgender people were among Black and African American people, both transgender women, and transgender man. So this just shows you that gender identity and racial barriers and this disparities are truly present. They also did a survey in about seven US cities more recently, from 2019 to 2020. And they basically showed the same exact disparities. Transgender women who were black or African American definitely had a higher rate of newly affected HIV. And you can see here that the number of transgender individuals who were newly diagnosed or living with HIV were between the ages of 25 to 34. So

age also has a significant contribution to new HIV infections. This just shows you the same kind of the same point. So how do we address HIV, what's not illustrated here, then, basically, education, community outreach, availability of PrEP and PEP availability to primary care physicians is all very in stopping the acquisition of new HIV infections. When a patient is diagnosed with HIV, it's important to have them linked to care. And also make sure that they are receiving appropriate medical services from a provider, making sure that you're starting ART's as soon as possible and monitoring their viral load while on the medication and doing resistance testing to make sure that the ART therapy that they're on is appropriate for this patient. And also the goal of therapy is to suppress the viral load

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because you can. So the patient is considering an anti retroviral regimen of dolutegravir and tenofovir fumarate. And basically Truvada, she has questions about the effect of any of ART on her hormone regimens. What do we know about drug drug interactions between ART and hormones. So this is something that has come up many times with the transgender population who are diagnosed with HIV who need to be on ART to suppress the viral load on boosted integrase inhibitors have shown the least potential to impact gender affirming hormone therapy as well as non nucleoside reverse transcriptase inhibitors, including doravirine and let's see, rilpivirine some medications do increase the level of hormones in transgender patients taking testosterone and and finasteride, particularly, that of elvitegravir. And also protease inhibitors with boosters and support. If you're going to start these medications on transgender men and particularly or taking injections, it's important to know to monitor their testosterone levels in order to keep the testosterone range within a healthy level. Some medications like the protease inhibitors also decrease estradiol so if they are trans feminine or transgender woman who is androgynous then it's important to monitor the estradiol levels to make sure that they are still receiving adequate estradiol. Exogenously to keep it between the therapeutic goal of one to 200. Several other medications also decrease testosterone and finasteride. So if you're using any of the other medications, like Efavirenz Etravirine and Nevirapine these medications, there's some rows of contraindication to starting them and transmission to taking hormone therapy, and the some medications have unclear effect on GA, HT, gender affirming hormone therapy. So the point of the story is to keep monitoring it's important to monitor hormone levels with the initiation or switching of ART's. The goal is to severely suppress the HIV in these patients but also maintaining appropriate hormone levels for them as well. So the patient is now reassured about the lack of drug drug interactions between estrogens and her ART regimen. She starts to medication and schedules a follow up in four weeks to monitor the HIV viral load. What should we know as providers about viral suppression rates for transgender people receiving ART, you can see here about 81.8% of transgender patients overall achieved viral suppression. And this was a study done through the Ryan White HIV AIDS program in 2018. You can see from the other data points, anything below the dotted line means a lower viral suppression rate. And some of these factors included age so anywhere from 20 to 29. Younger transgender patients had lower rates of viral suppression. And also housing was a big component whether they were temporary housing or if they had unstable housing, or if they were homeless. So, like I said, social factors play a huge role in adequately suppressing viral load. So why is viral suppression lower? A lot of patients prioritize transition related medical care over HIV care and general medical care and overall, fears about drug interactions between hormones and HIV. Lower

adherence, self efficacy, negative experiences with providers and health systems, fear of discrimination HIV stigma, mental health issues that are sometimes under diagnosed or untreated. concomitant substance use and unstable housing, like I mentioned in the prior slide. There are different initiatives that have started in order to help engage communities especially in who are transgender in order to get them linked up to medical providers in order to treat their HIV and also to kind of link them to primary care providers, and also for increase rates of HIV testing and being on PrEP and PEP, um, in order to prevent HIV infection. Several studies also been done in order to further investigate the,

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you know, the rates of HIV and transgender populations. So we can see here that the viral suppression rate is actually increasing in New York City. It's it's a very good sign as you can see The more you put into providing care to transgender populations, the better the outcomes will be. You can see here in 2007 virus depression rate was 53%. And now it's up all the way to this was a transgender man, but you can see for cisgender men and women and transgender persons, you can see from 42% all the way up to 73% over the span of about 10 years. So as you can see more engagement will provide better viral suppression. So how can you as a provider provide favorable HIV care outcomes, and first you're going to improve your care environment, make sure that you are knowledgeable and your nurses and ancillary staff are knowledgeable about transgender health concerns. Create a more welcoming physical environments, be trained in providing trauma informed care, make sure you have adequate access to psychiatric psychiatrist and therapists and mental health providers who are well versed in providing mental health, particularly for transgender individuals. Discuss a lack of impact of HIV medications on hormones. Increase your knowledge as a provider about translating medical issues, like I mentioned before, and also the best thing you can do is integrate hormone therapy with HIV care, preferably if the HIV providers are also giving them the hormone replacement therapy in order to keep them engaged in healthcare and also making sure that you are providing gender affirmative care to these patients as well. So this is a very simple thing to do. Just make sure you have a gender inclusive survey, check in. Make sure you get them the information you are that you need. And also make sure that you are using appropriate pronouns and affirming their gender. First impressions are important. Like I said, inclusive intake forms, use their chosen names or pronouns, make sure your EMR has a way to display their preferred names and pronouns. Assess psychosocial material needs at intake, have knowledgeable stuff like I mentioned before, how brochures to have trans people in them and like posters or brochures and little inclusive sticker and in the front desk also makes a huge difference. How in hire more trans identified staff and gender expansive staff, and also post non discrimination diversity and confidential confidentiality policies in your office and also be able to provide gender affirming care, including hormones and referrals for gender affirming surgeries. So transition comes in multiple forms you you can come out as a as a transgender, expensive socially to friends and family your job legally in terms of official documentation and passports and driver's license hormonally with gender affirming hormones, which I'll talk about in a minute.

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gender affirming surgeries, top surgeries bottom surgeries and also facial feminization and also coming out to yourself as a as a trans person or gender expression. So we do have several

options for gender affirming hormones and surgeries. Hormones definitely is a big part of it for transgender men and trans masculine individuals. Testosterone is the kind of primary way of providing gender affirming therapy to these patients. And for transgender women estradiol in different forms, as well as different forms androgen blockers and most commonly used is Spironolactone and Lupron. Surgeries there are multiple options for transgender patients. Those who are transgender men and trans masculine the most common is the chest masculinization surgeries. So double mastectomy and with nipple graft for transgender women breast augmentation with silicone sorry, with implants and insertion. Bottom surgeries for transgender men can undergo Metoidioplasty Phalloplasty, Vaginectomies and hysterectomy is for transgender women the most common or Orchiectomy and Vaginoplasty and also for transgender women. There's also an option for facial feminization where the plastic surgeon kind of smoothes out the bony structures of the skull and the eyebrows and the chin to create a more feminine appearance and other kind of options for transgender patient include voice therapy, hair, laser hair removal and prosthetics. So basically, gender identity is determined by the patient not through any other way. PCPs and HIV specialists are able to prescribe monitor hormones you just need to kind of learn how to do it and be comfortable doing it and Make sure you know what your what the goal is and what you should be aware of when, when prescribing hormone gender affirming hormone therapy, necessary skills, be knowledgeable about gender diverse identities, lectures such as this goes a long way. Familiarity with hormone regiments and guidelines, preventive care after medical and surgical interventions and understanding the different kinds of surgeries available for trans patients and post op managements and certification you should actually do a course through WPATH, which is kind of like the world or national kind of organization for Transgender Health. Yeah, so So what are some effects of feminizing regimens if a trans gender woman or trans feminine individual is taking estradiol with an androgen blocker? Most common physical changes include breast development, redistribution of body fat, reduced muscle mass and stamina, reduced body hair, reduced erectile function and reduced size of the testes. Some adverse effects can cause lower sperm count and fertility. It's important to talk to your patient before starting on gender for male hormone therapy, whether or not they would like to do any kind of fertility preservation may also cause dyslipidemia. If they're on estradiol, they should know they're at increased risk of blood clots and VT ease which can be mitigated through different ways of providing estradiol, prolactinoma, and hypertension. For trans masculine or transgender men. If they're checking testosterone supplements, then, they should be expected to undergo facial and body hair growth, redistribution of body fat, increase muscle mass deepening of the voice since cessation of menses, and cliteromegaly. Some adverse effects include acne urethral cytosis, especially this, it's important to monitor the hematocrit if they are on testosterone, hormone therapy and they might, also experience atrophic vaginitis it may affect infertility it may affect their fertility as well. So it's important talk to trans men patients about fertility preservation options if they if they would still like to pursue that. Male Pattern Baldness, transaminitis and pelvic pain.

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So these are all different kinds of services that should be offered to all transgender patients and gender expansive patients provide gender affirming hormones, get them to refer to surgeons, plastic surgeons, urologist or GYN surgeon to get any of the surgeries that they deem necessary. Address family support. Having a good strong support system reduces depression

improves their self worth. Also, calling them by their preferred name and pronouns also shows a great increase in quality of life for transgender patients, integrating hormones into medical care, so the primary care provider should be well versed in providing hormones to their patients, as opposed to always referring them to an endocrinologist. The more providers who are aware of transgender health care, the better it will be overall. And also, like I said, choosing their preferred name and pronouns were just as depression and suicidal behavior. So just some just basic laboratory monitoring, evaluate the patient every three months in the first year, and then every six months or so that you're following. You want to measure the hormone levels for testosterone estradiol, their electrolytes, if you're taking spironolactone, you want to measure the potassium if they're taking testosterone, you want to monitor the hematocrit, testosterone goal range, you want it to be between 400 and 700 Typically, the best time to do it is mid cycle. So if they're taking it weekly, you want to measure it and right in the middle of the injections, if your day if they're taking it every two weeks, then measure it a week after their last injection for trans women that testostorone should be below 50 And estradiol should be between 100 200 It's very important to know that testosterone is the most important part and achieving masculine masculinizing and feminizing features so for trans women you really want to suppress testosterone, and for trans men, basically just you're giving them more testosterone to create that masculinizing features hypertriglyceridemia elevated triglycerides are is also a major side effect of initiating estradiol so it's important to monitor that and start them on any statins or any medication that in order to reduce it. They a lot of individuals who take feminizing hormones also noticed increase weight gain and increase visceral fat and a, they decrease insulin sensitivity, so they are more prone to being pre diabetic and diabetic. So it's important to monitor HB and 1C when see in these patients also increased risk of blood clots and PE usually occurs in the first year of hormone therapy. So it's important to monitor and to make sure you're keeping the estradiol level between 100 and 200. If you increase if the cell level exceeds that range, then you increase their risk further for getting blood clots. And also, if they have a family history of ovarian or breast cancer, migraines with aura, blood clots in the past, and also they're currently smoking cigarettes, then all of these are red flags, and these all should indicate to you that they are at increased risk of getting blood clots, and you can find another modality and said so you kind of want to refrain from prescribing them oral estradiol and kind of lean towards prescribing them estradiol patches and ethanol estradiol provides the highest risk, it's no longer used. It has shown that this really increases your risk of clots and is not originally used. Instead, we use estradiol cypionate or valerate is the most common injectable form, and the patches have shown to have a greatest safety profile and providing estradiol but decreasing their risk of clots. Also, they have individ transgender women also have increased risk of CAD and CVT. CVD I'm sorry, ischemic stroke are two times higher within the first year estrogen treatment for its important to take a strong medical history about risk factors calculating their their 10 year risk of cardiovascular accidents and stroke and making sure that you're limiting their risk. And this is just some routine screening for osteoporosis and transgender women. If they have undergone a gonadectomy they are at higher risk of getting osteoporosis, if they have undergone orchiectomy, they are they do need to be on estradiol, lifelong in order to reduce the risk of osteoporosis and once they reach the age of 65, then it's important to screen them with a DEXA scan. And some information that we still do need to do some research on is how are

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our so considerations of ART on transgender women on estrogens and their effect on lipids bone health, metabolic changes and cardiovascular disease. And which gender do we typically use for gender based risk calculators from the from the cardiac national organization. It's I've seen some papers that said that if the patient started transitioning in adolescence at a very young age, then you can use their preferred gender to calculate their 10 year risk. But if they started during adulthood or later in life, then you can use the one that they were the gender that they were assigned at birth. Also, we need to know more information about the impact of estrogens on transmission of HIV disease progression, and also the impact of COVID-19 on trans populations in terms of access to health hormones, with HIV testing effects of hormones and spironolactone entrence on disease transmission and severity. There are a lot of resources that New York City provides for transgender populations who are trying to navigate the health care system in order to get the care that they need for both trans transgender catered health care services and also HIV. And as you can see, visibility is a huge components. The more you are exposed to different populations and exposed to different healthcare needs of your patients, the more well versed clinician you will be. So take home messages there is definitely a lot of structural and interpersonal individual and biologic factors that increase HIV for transgender people. Gender affirming care is a huge essential component of PrEP in HIV care and prevention of HIV and overall optimal health outcomes. And medical providers should be knowledgeable about transgender care guidelines and be able to manage hormone regimens. It's okay not to know it's okay to learn later in life. So just definitely try try your best to become more comfortable with providing gender affirming health care and referrals to surgeons to make sure that the patient is getting all the care that they need. So these are some resources I've used and if you guys have any questions, please feel free to ask. I kind of threw a lot at you but I think we have five minutes to spare. And CEI, we have some numbers and some We have resources available if you guys would like to get some in the future, and we have little pronoun buttons if you guys would like that to show your patients that you are competent and transgender healthcare. So

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thank you

[End Transcript]