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Gender Affirming Care For Transgender and Non-Binary Youth

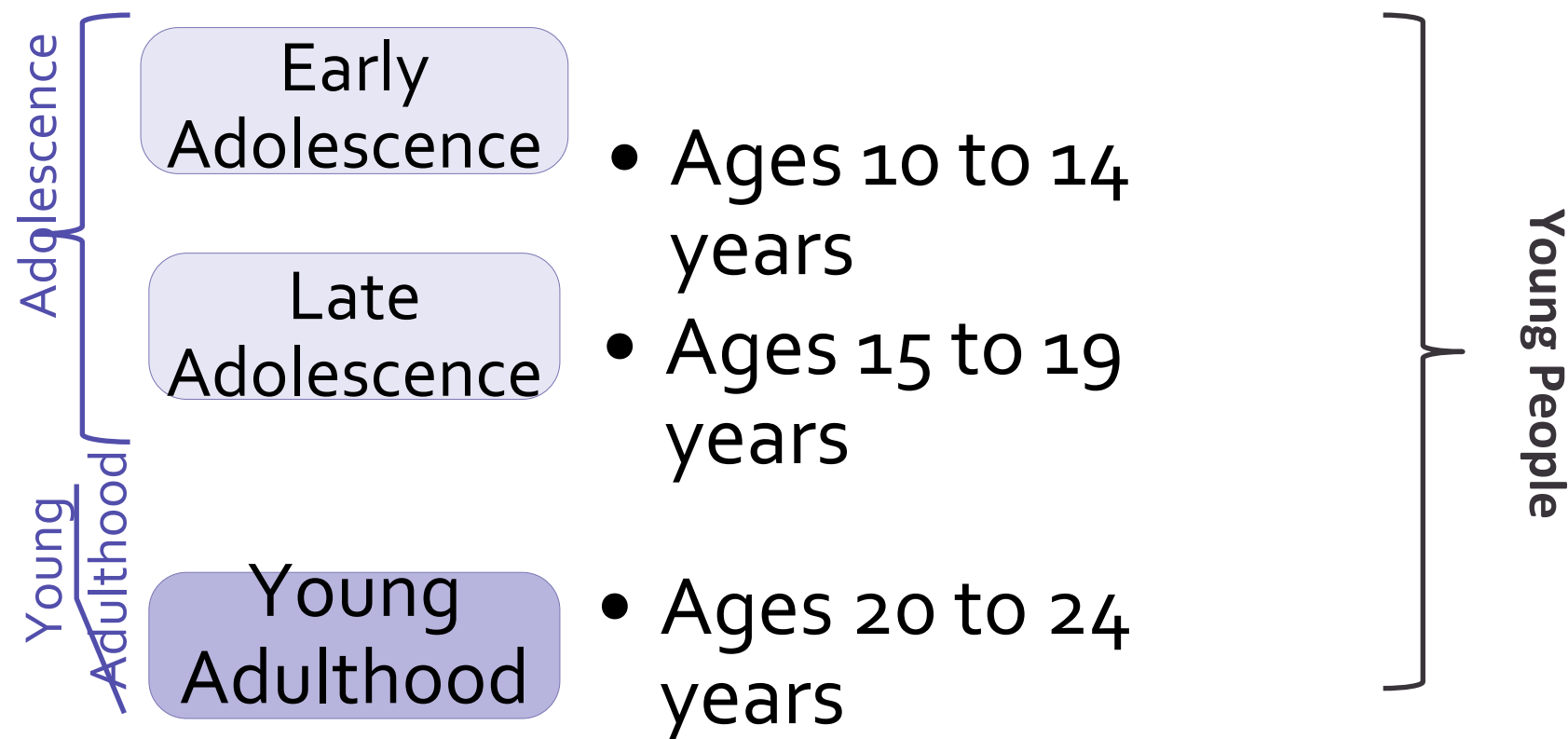
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Pediatric and Adolescent HIV
Albert Einstein College of Medicine
Children's Hospital at Montefiore

Learning Objectives

Upon completion of this presentation, learners should be better able to:

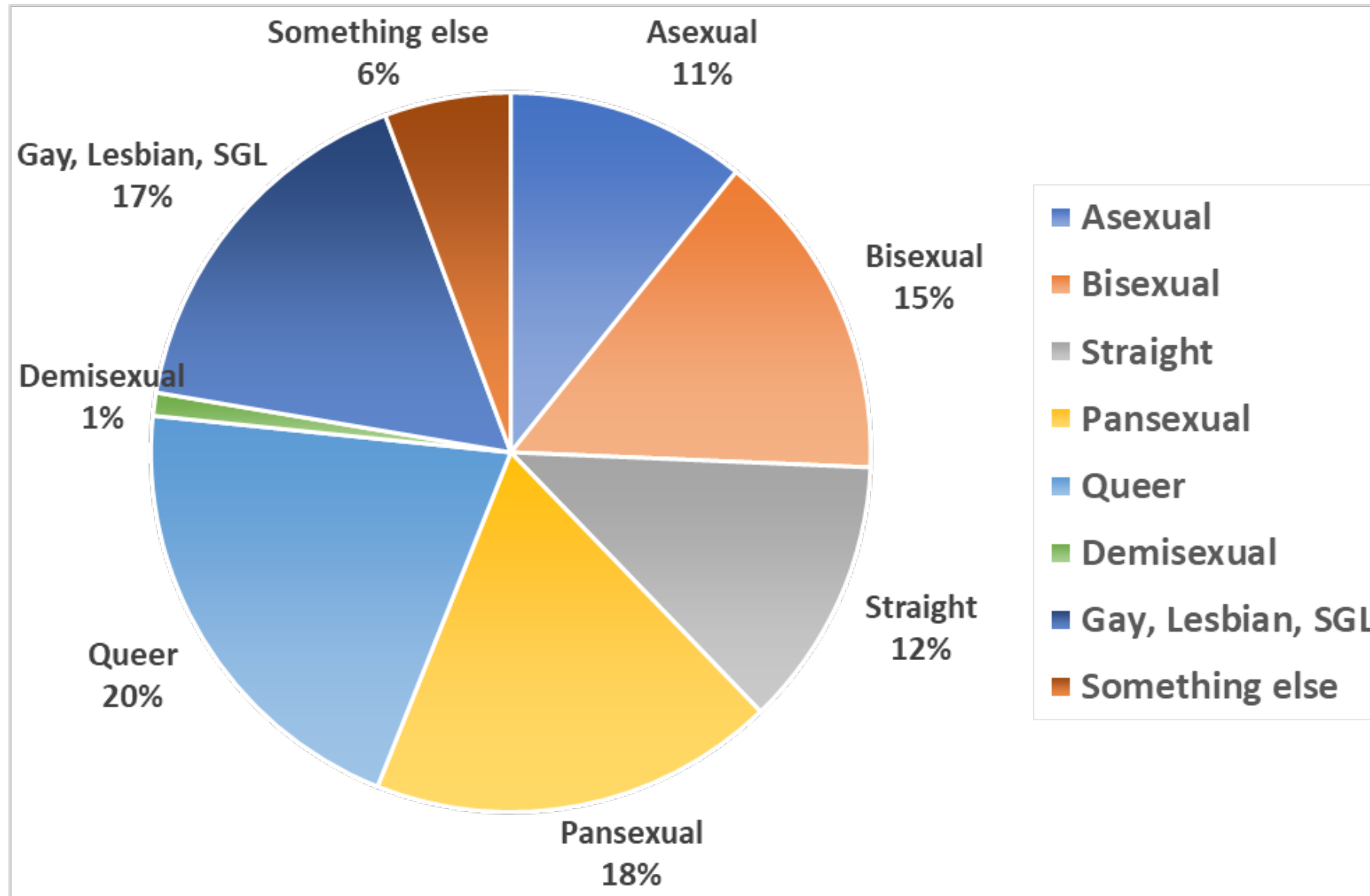
- Review the nuances when assessing transgender and nonbinary youth for HIV/STI screening, and linkage to HIV care
- Adopt strategies for engaging transgender persons, in effective patient-provider communications to improve sexual health outcomes
- Apply the latest guidelines and recent clinical evidence on safety, efficacy, and adherence to improve PrEP and DoxyPEP initiation and monitoring in diverse patient groups

Defining Adolescence and Young Adulthood



Sawyer, S. M. et al. (2012). Adolescence: a foundation for future health. *The Lancet*, 379(9826), 1630-1640.

Sexual Orientation



James, S. E., et al. (2016). The Report of the 2015 U.S. Transgender Survey. Washington, DC: National Center for Transgender Equality.

Non-binary, gender non-conforming/gender queer/gender fluid/agender?

- Individuals with identities that fall outside of binary gender-stereotypical expectations
- 2015 U.S. Transgender Survey (28,000 individuals)
 - 35% of respondents identified as nonbinary/genderqueer
 - 80% nonbinary FAAB
 - Two-thirds (61%) 18–24

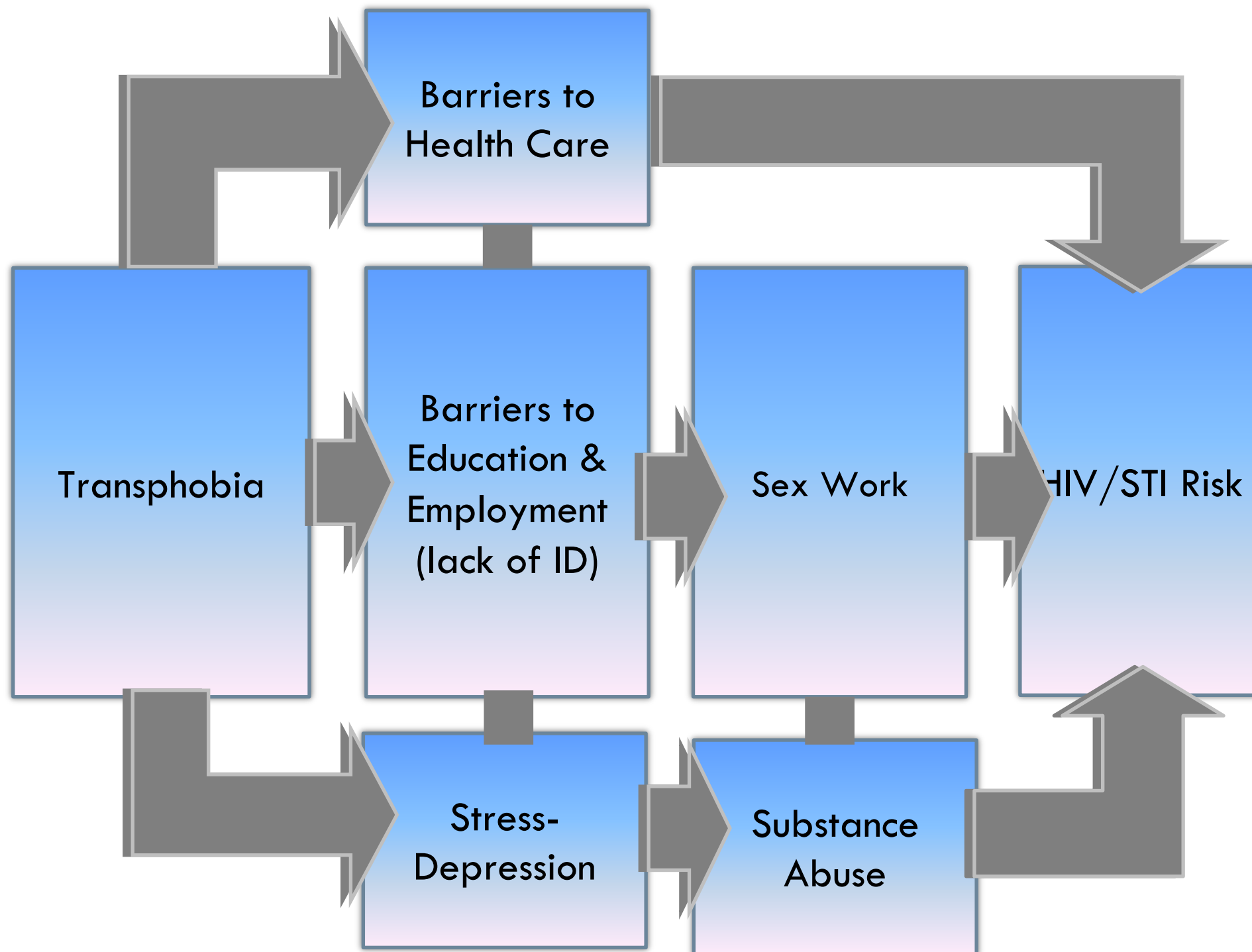
35%
nonbinary

James, S. E., et al. The Report of the 2015 U.S. Transgender Survey <http://www.ustranssurvey.org/>

Transgender Population in the US and New York

- According to the Centers for Disease Control, 1 Million people identify as Transgender
- 0.6% of adult population in 2016
- [transgender youth](#) ages 13-17 make up 0.7% of the youth population, about 150,000 people.
- Bronx population about 1.4 million
- Estimated 5000-9000 trans individuals in the Bronx
- 78,600 (.43% of population) in NYS identify as Transgender





Radix 2015

Negative Experiences in Healthcare

8

Had to teach their provider about transgender people	24%
Asked unnecessary or invasive questions about transgender status	15%
Refused transition related care	8%
Verbally harassed in healthcare setting	6%
Refused non-transition related care	3%
Provider physically rough or abusive	2%
Physically attacked by someone during visit	1%
Sexually assaulted in a health care setting	1%
One or more experiences listed	33%

Negative Experiences in Healthcare

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Clinical Care of Transgender and Gender Non-Conforming Youth



What does affirming-care look like?

- Establishing a trusting patient-provider relationship
- Refer to the patient by their preferred name - Epic / EHR
- Use preferred pronouns and salutations
 - If you're unsure use their name or "they"
- Gender-relevant patient education and health promotion
- Be respectful! Do not allow hostility

How To Ask 'Sensitive' Questions

- “I will discuss some sensitive topics.”
- “I will be asking you questions about your sexual activity.”
- “I will ask you what body parts you use for sexual activity.”
- “I do not want to assume anything.”
- “I want you to feel comfortable, I’m here to help.”
- “If you prefer me to use other words to describe body parts, let me know.”

Gender Affirmation: Behavioral and Mental Health Support

Nondiscriminatory *gender-affirming care includes:*

- Sensitivity to gender issues and competence in handling them
- All youth requiring gender affirming care need mental health or counseling services
- Culturally-relevant sexual, mental, and physical health assessments
- Medically affirming care that includes hormone therapy and referrals for gender-affirming surgeries and procedures

Gender Affirmation: Behavioral and Mental Health Support

- Unemployment
- Unstable Housing
- Uninsured
- Substance Use Disorder
- Trauma-induced mental health issues
- Incarceration history
- Health care discrimination

Gender Affirmation: Social Transition

Social

- name, pronoun, clothes

Legal

- Changing gender markers on legal documents

Medical/ Surgical

- Gender-affirming hormone therapy +/-
- Gender-affirming procedures/surgeries +/-



Gender Affirmation: Medical Goals of Feminization or Masculinization

- Fertility or parenting desires
 - Should be discussed early in the process before initiating hormones
 - HT is not effective contraception
- Sexually active individuals with gonads who do not wish to become pregnant or impregnate An individual should be counseled about contraception
- Hysterectomy with or without BSO is medically necessary for patients with diagnosis of gender dysphoria

Gender Affirming Surgical Care

- “Top” surgery
 - Mastectomy, breast augmentation
- “Bottom” surgery
 - Transmale
 - TAHBSO
 - Metoidioplasty
 - Phalloplasty
 - Transfemale
 - Orchiectomy
 - Vaginoplasty
- Facial feminization



Feminizing Regimens - effects



- Breast development
- Redistribution of body fat
- Reduced muscle mass & stamina
- Reduced body hair (not facial)
- Reduced erectile function
- Reduced size of testes
- Lower sperm count

Transfeminine Hormonal Care

Expected effects

Table 13. Feminizing Effects in Transgender Females

Effect	Onset	Maximum
Redistribution of body fat	3–6 mo	2–3 y
Decrease in muscle mass and strength	3–6 mo	1–2 y
Softening of skin/decreased oiliness	3–6 mo	Unknown
Decreased sexual desire	1–3 mo	3–6 mo
Decreased spontaneous erections	1–3 mo	3–6 mo
Male sexual dysfunction	Variable	Variable
Breast growth	3–6 mo	2–3 y
Decreased testicular volume	3–6 mo	2–3 y
Decreased sperm production	Unknown	>3 y
Decreased terminal hair growth	6–12 mo	>3 y ^a
Scalp hair	Variable	— ^b
Voice changes	None	— ^c

Masculinizing Regimens - effects



Photo: Gay Times Magazine 2016

FACIAL AND BODY HAIR

REDISTRIBUTION OF BODY FAT

INCREASED MUSCLE MASS

DEEPENED VOICE

MALE-PATTERN BALDNESS

CESSATION OF MENSES

CLITOROMEGALY

ATROPHIC VAGINITIS

ERYTHROCYTOSIS

Transmasculine Hormonal Care

Expected effects

Table 12. Masculinizing Effects in Transgender Males

Effect	Onset	Maximum
Skin oiliness/acne	1–6 mo	1–2 y
Facial/body hair growth	6–12 mo	4–5 y
Scalp hair loss	6–12 mo	— ^a
Increased muscle mass/strength	6–12 mo	2–5 y
Fat redistribution	1–6 mo	2–5 y
Cessation of menses	1–6 mo	— ^b
Clitoral enlargement	1–6 mo	1–2 y
Vaginal atrophy	1–6 mo	1–2 y
Deepening of voice	6–12 mo	1–2 y

Feminizing Regimens

ANTI-ANDROGEN *	STARTING DOSE	AVERAGE DOSE	MAXIMUM DOSE
SPIRONOLACTONE, ORAL	25MG/DAY	150MG/DAY	200MG/DAY
FINASTERIDE, ORAL	1MG/DAY	1-5MG/DAY	5MG/DAY
CYPROTERONE, ORAL	25 MG/DAY	50MG/DAY	50 MG/DAY
LEUPROLIDE ACETATE, IM	3.75 MG/MONTH		
ESTROGEN			
ESTRADIOL VALERATE ORAL	2MG/DAY	4MG/DAY	6MG/DAY
ESTRADIOL VALERATE	20MG IM Q 2 WKS	20-30 IM Q 2 WKS	30 MG IM Q 2 WKS
ESTRADIOL PATCH (PREFERRED OVER 45)	25 MCG/DAY	50 MCG/DAY	200MCG/DAY

Adapted from Hembree, JCEM 2017; Royal College of Psychiatrists, UK 2015

Masculinizing Regimens

HORMONE	STARTING DOSE	AVERAGE DOSE	MAXIMUM DOSE
TESTOSTERONE (CYPIONATE OR ENANTHATE) IM	50 MG Q 2W	200 MG Q 2 WEEKS	200 MG Q 2WEEKS
TRANSDERMAL TESTOSTERONE 1%, 1.6%	25 MG DAILY	50 MG DAILY	100 MG DAILY
TESTOSTERONE PATCH	1-2.5MG DAILY	4-5MG DAILY	7.5-8 MG DAILY
TESTOSTERONE UNDECANOATE IM		750 MG/10 WEEKS	

Measure testosterone levels between injections
Goal: 400-700 ng/dL

Adapted from Hembree, JCEM 2017

Lab Monitoring

Periodic laboratory testing: Initially every 2-3 months for 1 year, then 1-2 times yearly if stable, physiologic range

Transgender women

- Estradiol, Serum testosterone levels should be <50 ng/dL
- Serum estradiol 100-200 pg/ml
- Serum electrolytes(individuals on spironolactone)
- Prolactin* NOPE

Transgender men

- Serum testosterone, target level is 400-700 ng/dl
 - Lower levels may trigger vaginal bleeding
- Hematocrit/hemoglobin
- **Break through bleeding** - Can occur months or years after of testosterone treatment.

Assessment

Conditions/side effects that may be associated with cross-sex hormone use include:

Depression

Severe migraines

Anemia

Polycythemia

Cardiovascular disease (CVA,CAD)

Thromboembolic events

Elevated liver enzymes

Some cancers (breast, ovarian, and macroprolactinoma)

Criteria for top surgery

- One letter of referral from a mental health provider and one from medical provider
- Transmale
 - Hormone therapy is not a prerequisite
- Transfemale
 - Recommended 12 months of hormonal therapy
 - (Medicaid requires 24 months for coverage)

Criteria for bottom surgery

- Two letters: one from mental health provider and one from medical provider
- 12 continuous months of hormone therapy as appropriate to the patient's gender goals
- 12 continuous months of living in a gender role that is congruent with their gender identity

Case #1: Meet Angel

A 17 y/o transgender teenage female presents for initial visit to start hormone therapy

Medical history

- Has taken her friend's estradiol for about 9 months
- Thinks she had a UTI a few months ago (burning)
- Has been well otherwise

Medications

- No current medications

Social history

- Intermittently lives with her 30 year old cisgender boyfriend; denies partner violence
- Can't live as female at home; couch serfs
- Current alcohol and marijuana use
- Has sex with cisgender men (anal receptive / oral)
- Sometimes engages in survival sex to pay bills / eat (no condoms)



My family doesn't support my gender identity.

How Do You Engage Angel?

Medical History cont.

- Last HIV/STI testing about 1 year ago: HIV - nonreactive
- Had been on TDF/FTC a year ago but stopped
- No gender affirming surgeries
- She has never been diagnosed with an STI

Social history

- Unemployed
- Uses Marijuana / alcohol
- Unstable housing



Angel (Cont'd)

A 17 y/o transgender teenage female presents for initial visit to start hormone therapy

Physical Examination

- **General:** Thin, not cachectic
- **Skin:** Non pruritic; hyper-pigmented macular, copper color lesions on trunk, palms and soles
- **Breast development: Tanner 1**
- **Genital:** Normal male genitalia; no lesions, sores or vesicles

STI Testing

- **HIV:** Nonreactive
- **Syphilis RPR: 1:64, *T. pallidum* Ab+**
- **3 site testing for GC/Chlamydia: Rectal GC+**

Laboratory Values

- **CBC, BMP:** Normal
- **AST, ALT:** Mildly elevated
- **Total / Direct Bili:** Elevated
- **Estrogen/Testosterone:** Unremarkable
- **Hep A Ab+; Hep B Core / Surface Ag & Ab-**
- **Hep C Ab -**

Question #1

A 17 y/o transgender teenage female presents for gender affirming hormone therapy (GAHT), engages in survival sex, diagnosed with secondary syphilis and rectal GC+.

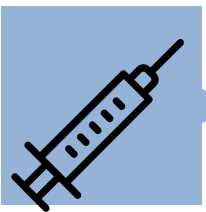
Is Angel a candidate for HIV pre-exposure prophylaxis (PrEP)?

- A. Yes; she should start TDF/FTC along with oral GAHT now
- B. No; she did not bring it up or ask about PrEP
- C. Maybe; more discussion is needed about HIV risk and prevention
- D. No; PrEP and GAHT should not be initiated simultaneously
- E. Both B and D

GAHT = Gender Affirming Hormone Therapy; PrEP = Pre-Exposure Prophylaxis; FTC = Emtricitabine; TDF = Tenofovir Disoproxil Fumarate; TAF = Tenofovir Alafenamide.

Angel (Cont'd): Clinical Course

A 17 y/o transgender teenage female presents for an initial visit to start hormone therapy.



Angel was treated for STIs

- ✓ LA Benzathine Penicillin 2.4 million units for secondary syphilis
- ✓ Ceftriaxone 500 mg IM for Rectal GC



She is concerned about FTC/TDF PrEP and estradiol levels

- ✓ Discussed the risks and benefits of initiating hormone therapy



Does she need parental consent?

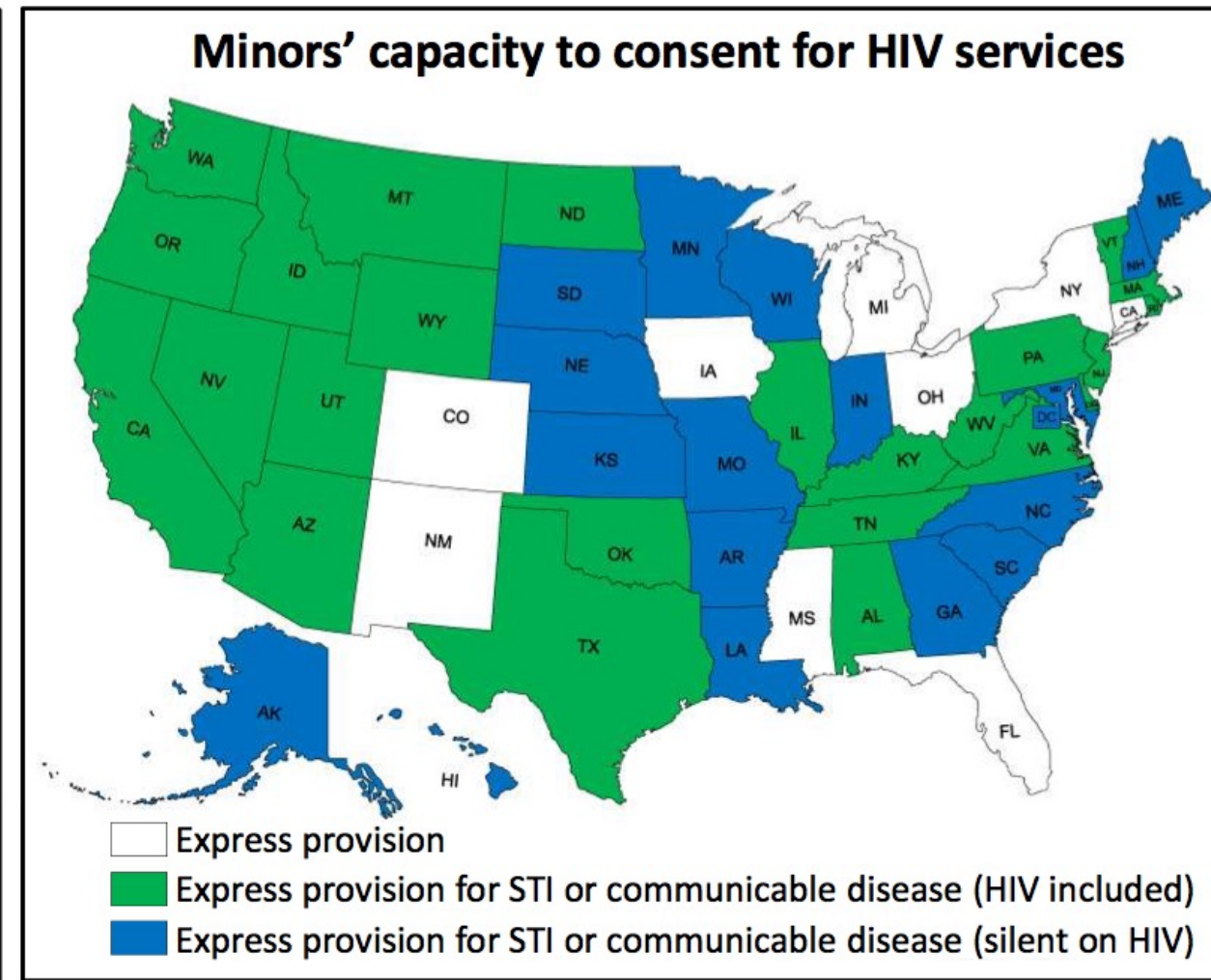
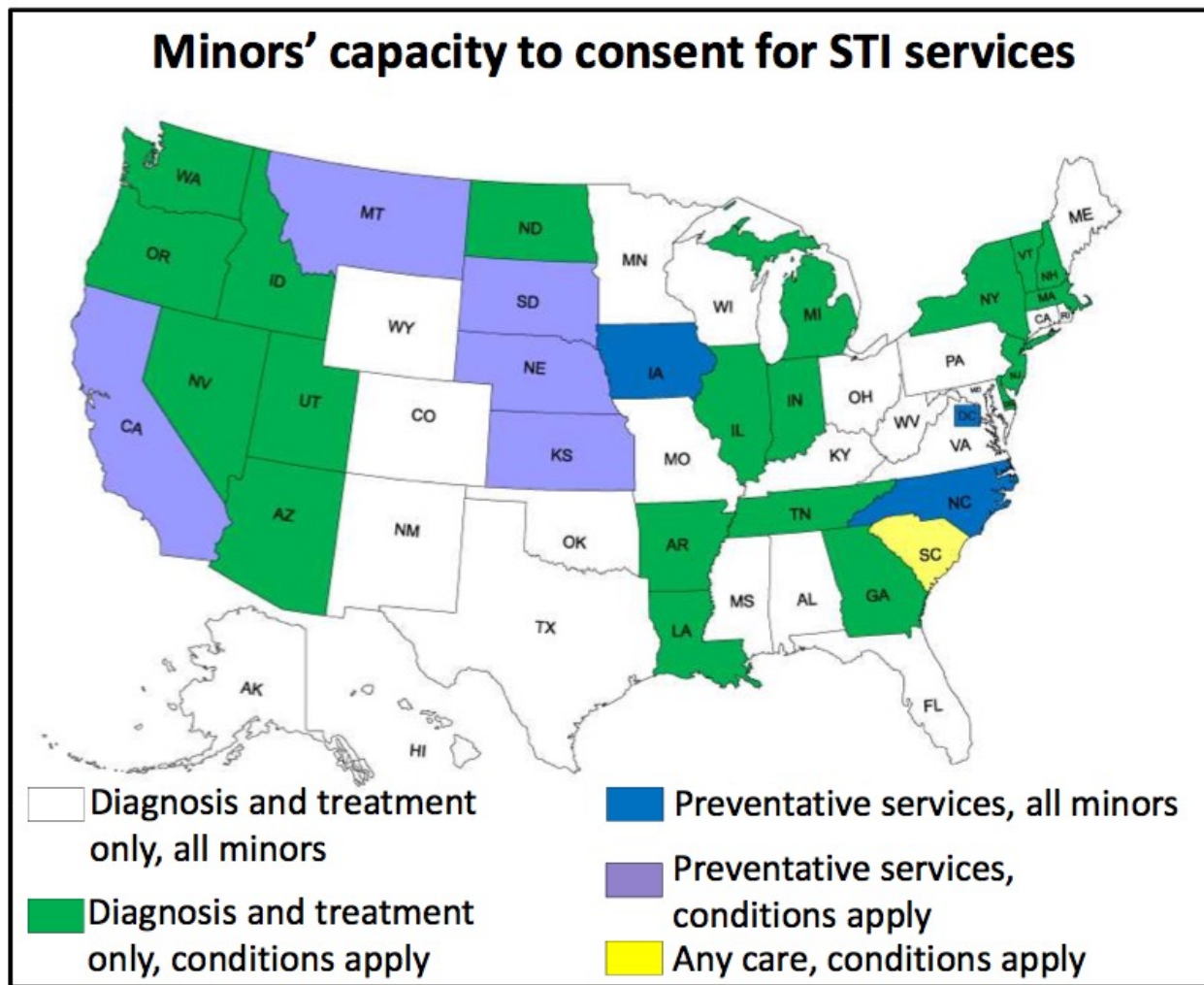
- ✓ For PrEP?
- ✓ For gender affirming care?



Discussed with her the ongoing risk for acquisition of HIV

- ✓ Survival Sex / Syphilis and GC

Initiating PrEP in Teens and Young Adults: Capacity to Consent for HIV Prevention Services



PrEP access for minors without parental consent is unclear with varied laws and definitions

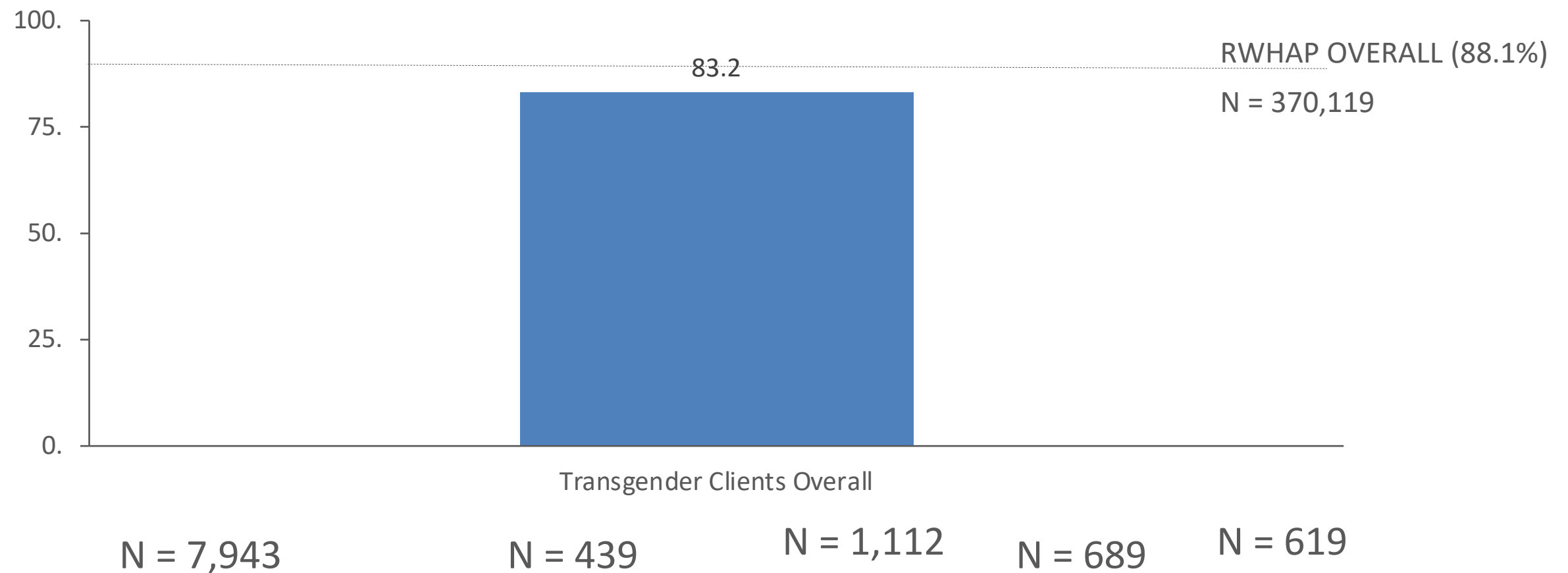
Culp L, et al. *Am J Prev Med.* 2013;144(152):S119-S124.

**“I didn’t keep my appointments because I didn’t care.
Now I love myself for the first time, I feel happy.”**



Viral Suppression among Transgender Adults and Adolescents Served by the Ryan White HIV/AIDS Program, 2019

VIRAL SUPPRESSION AMONG TRANSGENDER ADULTS AND ADOLESCENTS SERVED BY THE RYAN WHITE HIV/AIDS PROGRAM, 2019 – US AND 3 TERRITORIES



N REPRESENTS THE TOTAL NUMBER OF CLIENTS IN THE SPECIFIC POPULATION.

INCLUDES TRANSGENDER CLIENTS AGED 15 YEARS AND OLDER.

VIRAL SUPPRESSION: ≥1 OAHS VISIT DURING THE CALENDAR YEAR AND ≥1 VIRAL LOAD REPORTED, WITH THE LAST VIRAL LOAD RESULT <200 COPIES/ML

^A GUAM, PUERTO RICO, AND THE U.S. VIRGIN ISLANDS.

≥ 5 PERCENTAGE POINTS LOWER THAN TRANSGENDER CLIENTS OVERALL

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Health Resources & Services Administration. Clients Served by the Ryan White HIV/AIDS Program 2019. HIV Care Outcomes: Viral Suppression. February 2021.

<https://hab.hrsa.gov/sites/default/files/hab/data/datareports/rsr-2019-viral-suppression.pptx>. Accessed 6/4/2021.

Why is Viral Suppression Lower?



- Prioritization of transition-related medical care over HIV care
- Fears about drug interactions between hormones and HIV
- Lower adherence self-efficacy



- NEGATIVE EXPERIENCES WITH PROVIDERS/HEALTH SYSTEMS
- FEAR OF DISCRIMINATION
- HIV STIGMA



- MENTAL HEALTH ISSUES
- SUBSTANCE USE
- UNSTABLE HOUSING

SEVELIUS JM, ET AL. *J ASSOC NURSES AIDS CARE*. 2010; 21(3):256-264; SEVELIUS JM, ET AL. *AIDS CARE*. 2014;26(8):976-982; REBACK CJ, ET AL. *AIDS BEHAV*. 2019; REBACK CJ, ET AL. *AIDS BEHAV*. 2018;22(8):2524-2533; CHUNG C, ET AL. (2016). SOME KIND OF STRENGTH: FINDINGS ON HEALTH CARE AND ECONOMIC WELLBEING FROM A NATIONAL NEEDS ASSESSMENT OF TRANSGENDER AND GENDER NON-CONFORMING PEOPLE LIVING WITH HIV. OAKLAND, CA: TRANSGENDER LAW CENTER. [HTTP://TRANSGENDERLAWCENTER.ORG/WP-CONTENT/UPLOADS/2019/11/FOLLOW-UP-REPORT-SOME-KIND-OF-STRENGTH.PDF](http://transgenderlawcenter.org/wp-content/uploads/2019/11/follow-up-report-some-kind-of-strength.pdf). © 2021 PRIME EDUCATION, LLC. ALL RIGHTS RESERVED. ACCESSED 6/4/2021.

SLIDE COURTESY OF ASA E RADIX, MD, PHD, MPH, FACP.

Prevention of Chlamydia Infection

Background:

A randomized controlled clinical trial has shown that a single dose of doxycycline 200 mg taken within 72 hours after condomless oral, anal, or vaginal sex (i.e., as post-exposure prophylaxis/PEP), prevents chlamydia, gonorrhea, and syphilis infections. The study included men who have sex with men and transgender women who were living with HIV (PLWH) or taking HIV pre-exposure prophylaxis (HIV PrEP).

In the trial, participants randomized to doxycycline PEP (doxy-PEP) had a >60% reduction in STIs during follow-up, compared with those randomized to standard of care (no doxy-PEP). Taking doxycycline was safe and well-tolerated, with no drug-related serious adverse events.

Efficacy:

Providers should counsel patients prior to starting doxy-PEP on:

- People without HIV taking HIV PrEP, doxy-PEP reduced syphilis by 87%, chlamydia by 88% and gonorrhea by 55%.
- In PLWH, doxy-PEP reduced syphilis by 77%, chlamydia by 74% and gonorrhea by 57%

Prevention of Chlamydia Infection

Population:

Current evidence supports doxy-PEP in cisgender men and transgender women who have sex with male partners. Consider discussing doxy-PEP with shared decision making to those individuals who:

- Have had a bacterial STI in the past year.
- Report condomless anal or oral sexual contact with multiple cisgender male or transgender female partners in the past year.
- Have a history of syphilis.
- Express interest in doxy-PEP.

A trial of doxy-PEP for cisgender women in Kenya did not show efficacy. Reasons are being investigated. If doxy-PEP is offered to cisgender women, pregnancy testing should be conducted as doxycycline should not be prescribed during pregnancy.

Logistics for Prescribers:

1. Prescribe doxycycline 100 mg tablets, and free text instructions: “Take 2 tablets within 72 hours of condomless sex with food and water as doxy-PEP.”
2. **Note: the trial used delayed-release 200 mg doxycycline hyclate tablets that are not currently commercially available. Instead, 2 doxycycline hyclate or monohydrate immediate release 100 mg tabs (or capsules) taken together may be used.**
3. ICD-10 diagnosis code: Z20.2 “contact with and (suspected) exposure to infections with a predominantly sexual mode of transmission.”

References

1. <https://www.cdc.gov/std/chlamydia/stdfact-chlamydia.htm>
2. <https://www.cdc.gov/std/statistics/prevalence-2020-at-a-glance.htm>
3. <https://www.cdc.gov/std/treatment-guidelines/chlamydia.htm>
4. Dombrowski Julia C and others, Doxycycline Versus Azithromycin for the Treatment of Rectal Chlamydia in Men Who Have Sex With Men: A Randomized Controlled Trial, *Clinical Infectious Diseases*, Volume 73, Issue 5, 1 September 2021, Pages 824–831
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8. Lau A, Kong F, Fairley CK, et al. Treatment efficacy of azithromycin 1 g single dose versus doxycycline 100 mg twice daily for 7 days for the treatment of rectal chlamydia among men who have sex with men—a double-blind randomised controlled trial protocol. *BMC Infect Dis* 2017; 17:35.
9. US Centers for Disease Control and Prevention

Welcome
Place a Referral
e-Consults (Internal to UCSF Medical Center only)
UCSF Transgender Care & Treatment Guidelines ▾
Introduction
Contributors
Grading of evidence
Terminology
Clinic environment
Physical examination
Gender-affirming overview
Initiating hormone therapy
Feminizing hormone therapy
...

Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People

Publication Date: June 17, 2016

Second Edition

[Download Guidelines \(PDF\)](#)

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GENDER-AFFIRMING HORMONE THERAPY REGIMENS

Treatments for the development of secondary sexual characteristics of the desired gender and reduction/suppression of biological hormones

Hormone Protocols:

- WPATH Stands of Care
- Endocrine Society Guidelines
- UCSF Center of Excellence for Transgender Health Primary Care Protocols

