ESSENTIALS OF TRANSGENDER CARE FOR THE PRIMARY CARE PHYSICIAN

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GOALS

1. Define transgender terminology
2. Identify factors that contribute to healthcare disparities in the trans population
3. Understand gender dysphoria
4. Assist/advocate for patients interested in Gender Affirming Hormone Therapy

DISCLOSURES

- None

CASE PRESENTATION

"Dee Dee", 23 year old black transwoman presents to establish care

- Recently relocated from New Orleans to escape from abusive relationship; family of origin lives in Toledo
- Homeless for several weeks prior to move
- Uninsured/unemployed
- Would like to resume hormone therapy

CASE PRESENTATION

- Biologic sex: male
- Preferred pronouns: “she/her”
- Legal name change: yes
- Gender dysphoria: moderate to severe
- Duration of gender incongruence: “I have always known, but my family would not accept it”

CASE PRESENTATION

- Social transition: 7 years ago
- Gamete banking: no
- History of DVT/thromboembolic disease: denied
- History of hormone sensitive malignancy: denied
- Nonsmoker
- PMHX: none

CASE PRESENTATION

- Gender affirming hormone therapy: started 4 years ago; lapsed after loss of insurance. Recently has been buying hormones on the street
- Gender affirming surgery: Breast implants
- Relationship status: not currently in a relationship
- Sexual preference: Men, prefers anal receptive intercourse, Inconsistently uses condoms

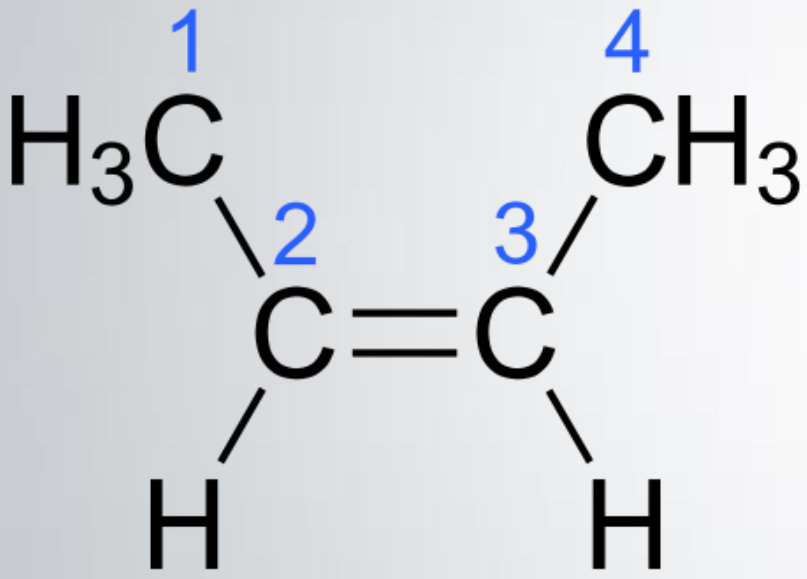
CASE PRESENTATION

- Psych hx: Denied
- Psych Hospitalizations: Twice after suicide attempts
  - Age 18, when her family outed her at church – laid down on railroad tracks, “The train did not come”
  - Age 21, was in a physically abusive relationship – tried to inject bleach in her veins
  - Admits to prior emotional, physical, sexual abuse

TERMINOLOGY

- Gender identity
- Gender expression
- Cis
- Trans
- Binary
- Non-binary
- Genderqueer
- Genderfluid
- Gender dysphoria
- Gender incongruence
- Social Transition
- Gender Affirmation

TRANS VS. CIS

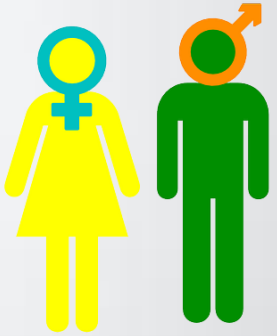


CIS = "this side of”

TRANS = "the other side of"

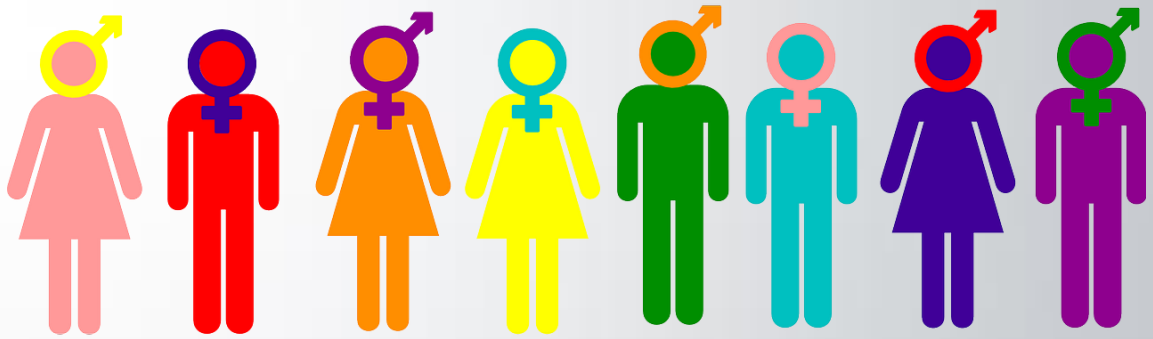
GENDER IDENTITY

- The state of *being* male, female, or other especially when considered with reference to social and cultural differences rather than biological ones.



GENDER IDENTITY

- How one experiences and defines their gender
- Personal and internal
- Not a choice



CIS GENDER

- Refers to a person whose sense of personal identity and gender corresponds with their birth sex

TRANSGENDER

- Refers to a person whose sense of personal identity and gender does not correspond with their birth sex
- May be binary or non-binary

BINARY IDENTITY

- Cis – gendered and
  Trans – gendered are both considered Binary Gender Identities
- Transman – female at birth with male gender identity
- Transwoman – male at birth with female gender identity

NON-BINARY IDENTITY

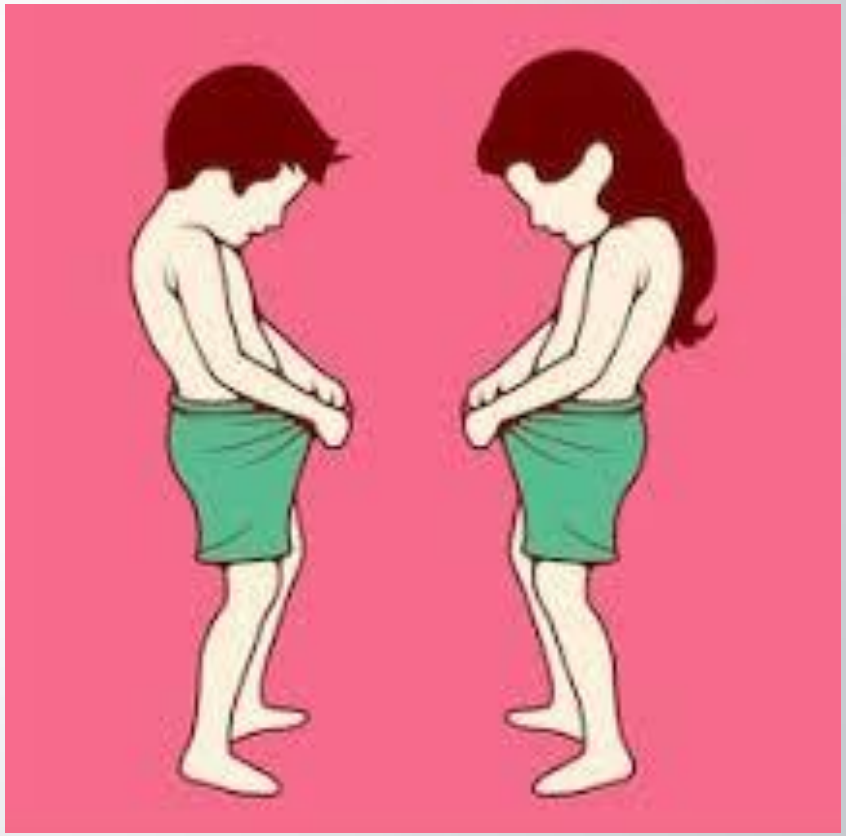
- Refers to someone who does not exclusively identify as male or female

NON-BINARY IDENTITY

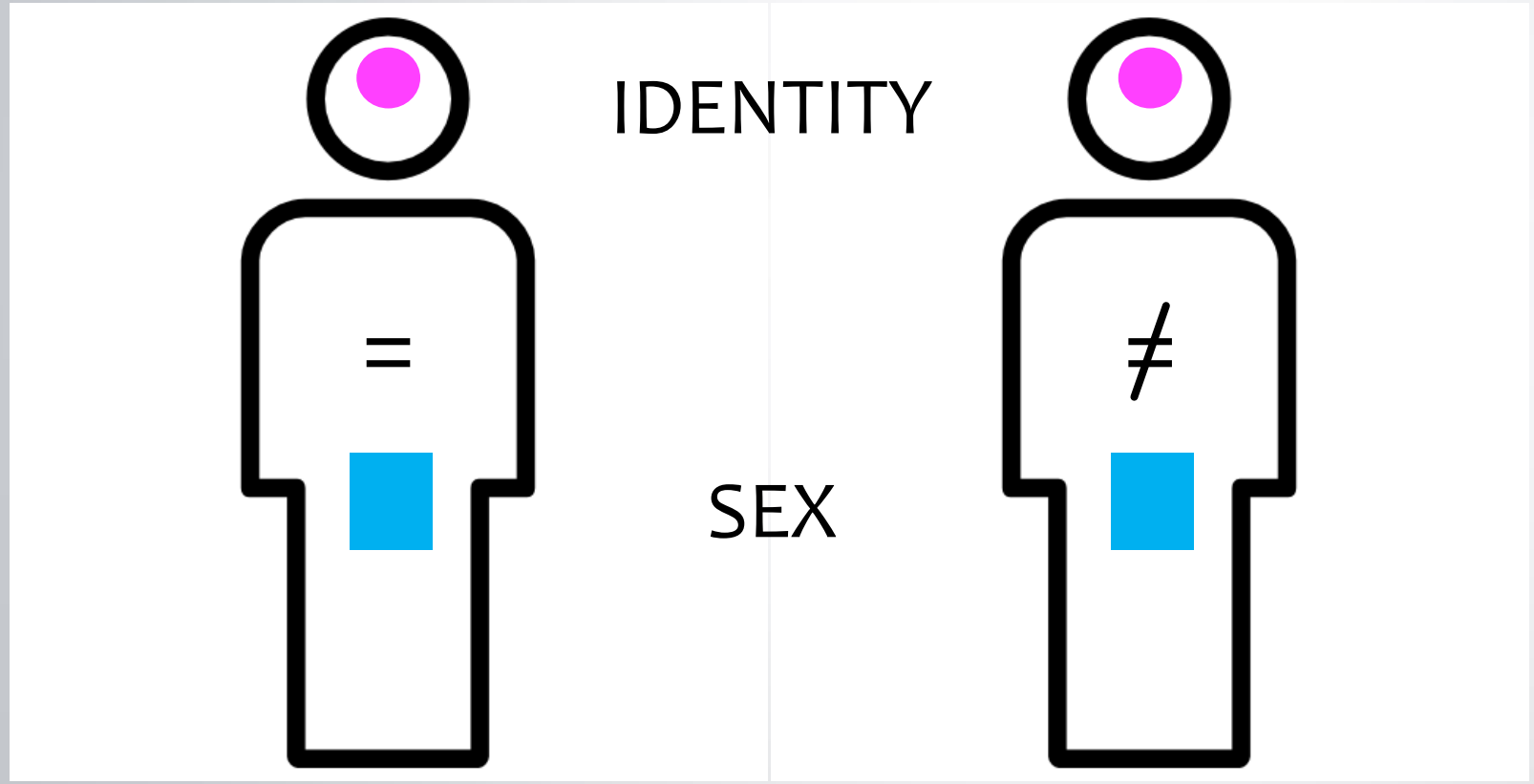
- Non-binary identities include:
  - Genderfluid
  - Genderqueer
  - Agender
  - Androgynous
  - Gender non-conforming

SEX

- How individuals are designated based on anatomic and biologic findings at birth

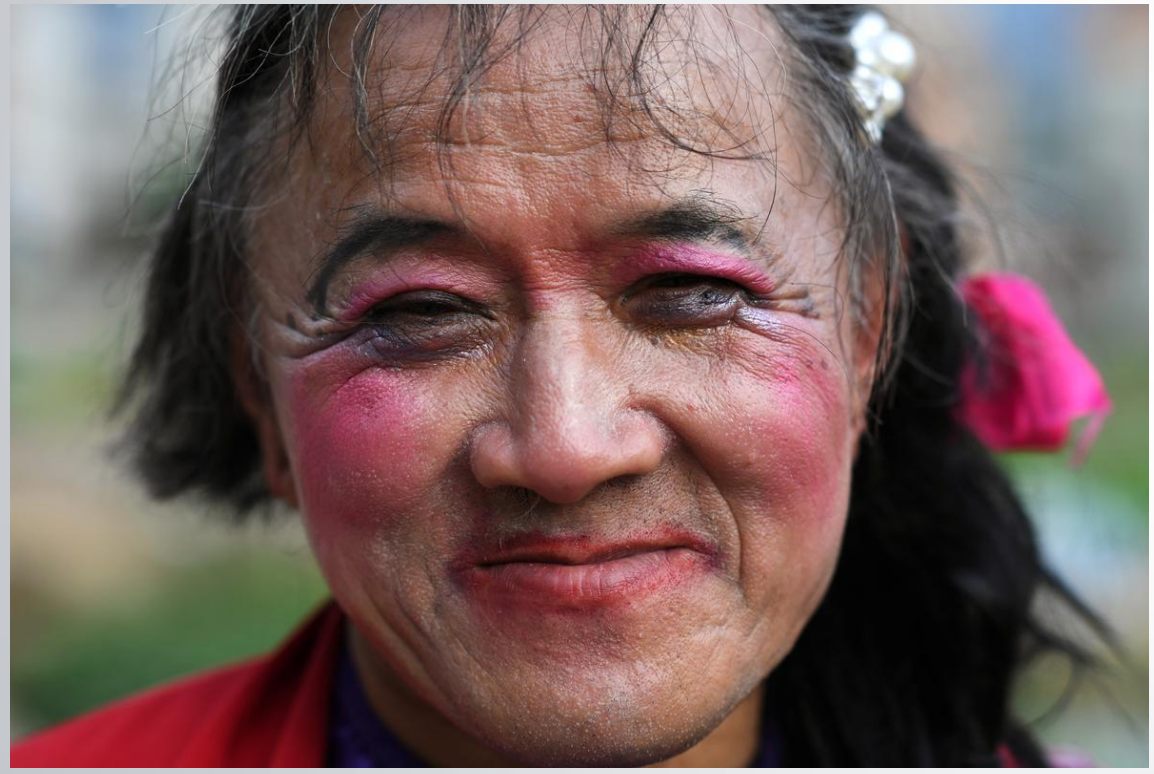


SEX VS. GENDER



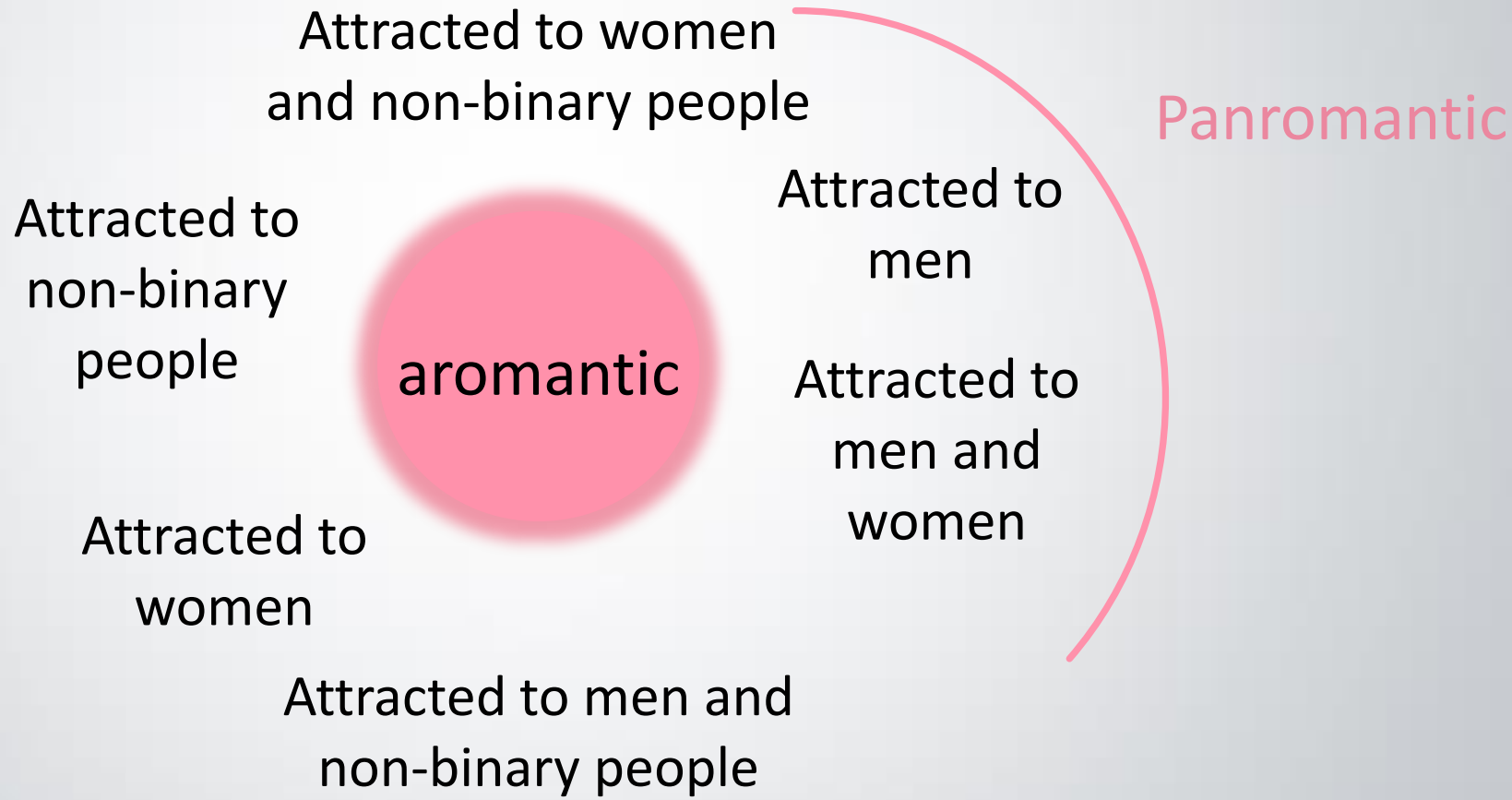
When one's sex and gender identity do not match they may identify as transgender

GENDER EXPRESSION

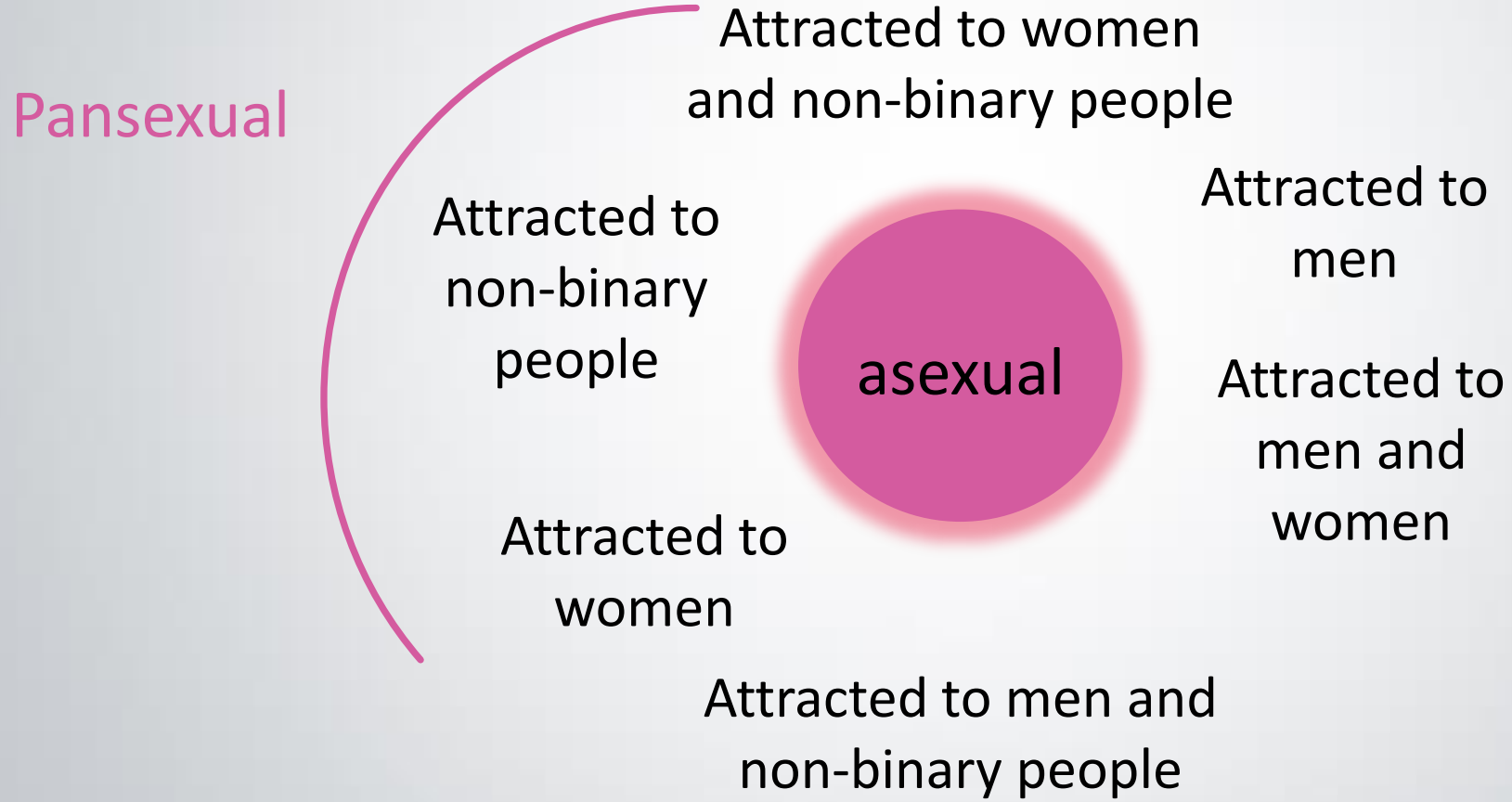


- How you present your gender based on actions, behavior, demeanor, clothing, etc., and how those are viewed based on social expectations

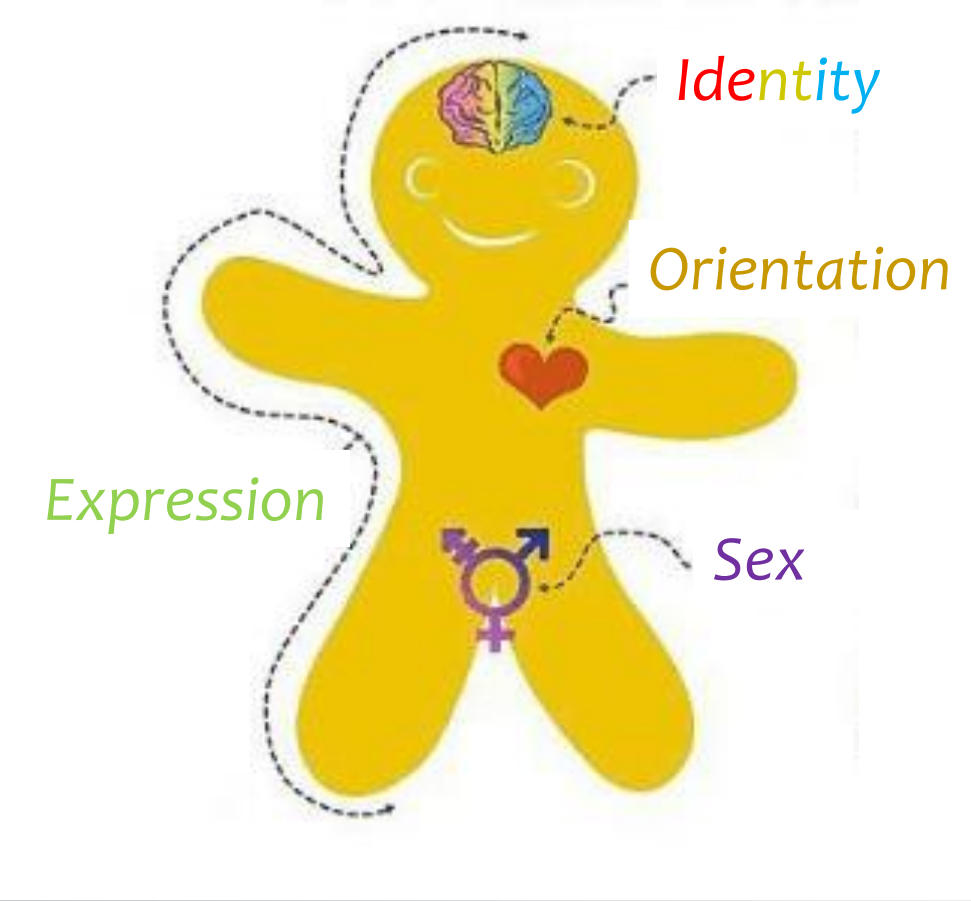
ROMANTIC ORIENTATION



SEXUAL ORIENTATION



THE GENDERBREAD PERSON



Gender Identity

Woman Genderqueer Man

Gender Expression

Feminine Androgynous Masculine

Biologic sex

Female Intersex Male

Sexual Orientation

Heterosexual Bisexual Homosexual

RELATIONSHIPS

STATISTICS

Worldwide

- 0.5 – 1.3% birth assigned males
- 0.4 – 1.2% birth assigned females

U.S.

- 0.6% of population
- 150,000 – 200,000 youth
- 1,400,000 – 2,000,000 adults

U.S.

- 33% transwomen
- 29% transmen
- 35% genderqueer

INCIDENCE - OHIO

Ohio trans-population in 2015 was ~ 65,000 persons

2015 U.S. Transgender Survey: Ohio State Report. (2017). Extrapolated data

OHIO - EMPLOYMENT

- 16% unemployed
- 26% living in poverty
- 34% reported being fired, being denied promotion, or experiencing some form of mistreatment due to gender identity or expression in prior year

2015 U.S. Transgender Survey: Ohio State Report. (2017). Washington, DC: National Center for Transgender Equality

OHIO – EDUCATION K-12

- 57% verbally harassed
- 27% physically attacked
- 15% sexually assaulted
- 20% were so severely mistreated that they left a K-12 school

2015 U.S. Transgender Survey: Ohio State Report. (2017). Washington, DC: National Center for Transgender Equality

OHIO – BARRIERS TO HEALTHCARE

- 32% who saw a healthcare provider reported having at least one negative experience
  - Refusal of treatment
  - Verbal harassment
  - Physical or sexual assault
  - Need to educate the provider to receive appropriate care

2015 U.S. Transgender Survey: Ohio State Report. (2017). Washington, DC: National Center for Transgender Equality

BARRIERS TO HEALTHCARE

- Many TGNC people lack health insurance
- Many insurance policies do not cover medical treatment for gender affirmation
- Many policies will deny routine preventive care for body parts not consistent with a person's gender identity (male requiring a PAP smear)

TRANS HEALTHCARE

- 60% of trans individuals have a PCP but only 43% had informed the PCP they were trans
- Many choose to not disclose their identity to avoid discrimination
- Often choose between obtaining care based on their birth sex or not having healthcare at all

BARRIERS TO HEALTHCARE

- There are not enough health professionals who are trained in transgender medical and behavioral health care

TRANS HEALTH DISPARITIES

TG people are more likely to:

- Smoke (30%)
- Misuse alcohol and drugs (26%)
- Be infected with HIV (20% in TG women)

TRANS HEALTH DISPARITIES

Mortality among TG population is higher:

- Suicide
- HIV/AIDS
- Liver failure
- Cardiovascular disease

TRANS MENTAL HEALTH

- Depression 41%
- Anxiety 33.2%
- 82% have considered suicide
- 40% have attempted suicide
- 54% of TG youth have attempted suicide

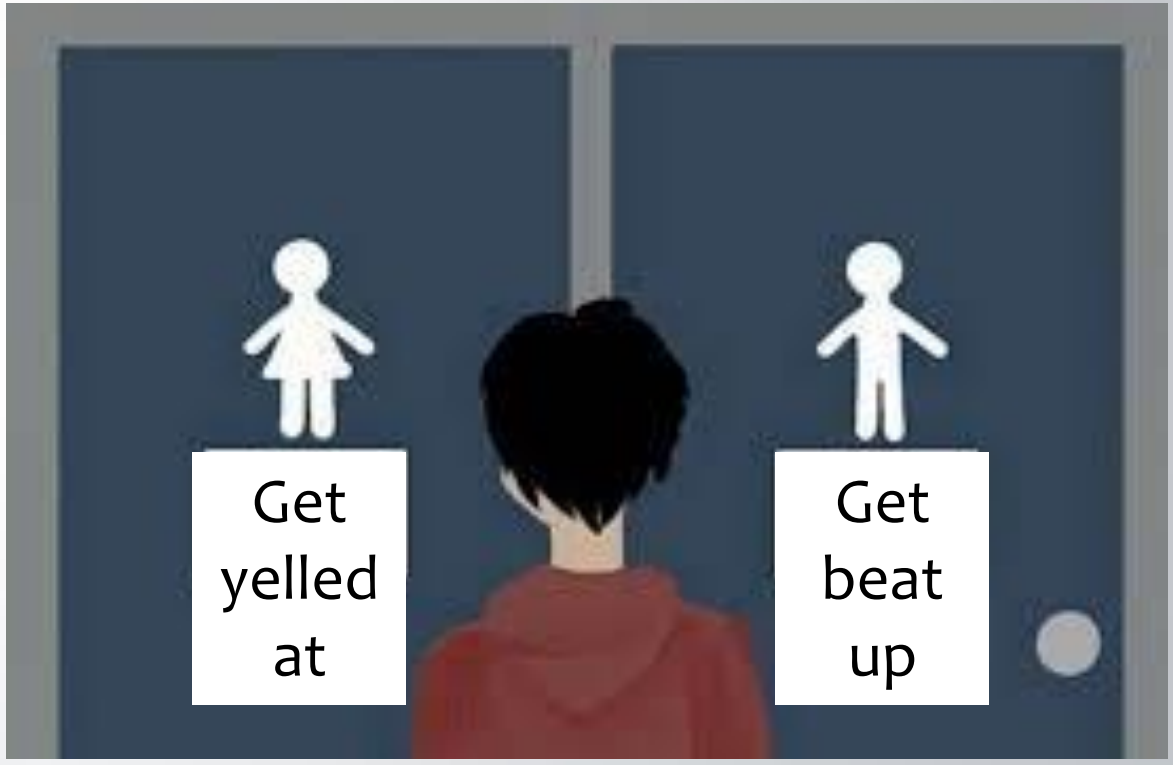
TRANS MENTAL HEALTH

Mental health issues in the TG population are not inherent to having a trans identity

- They are a response to external factors – stigma and rejection

PLUS

- Discomfort with one's body



GENDER DYSPHORIA

- Refers to the suffering due to an incongruence between one's sex assigned at birth and one's self-perceived gender

GENDER DYSPHORIA

- How they think about themselves does not match with what they see in the mirror and how other's think about them

GENDER DYSPHORIA

- Feelings of gender dysphoria most often present before puberty
- They often intensify during adolescence with the development of secondary sex traits

GENDER DYSPHORIA – DSM 5

A marked incongruence between one's experienced/expressed gender and natal gender of at least 6 months in duration, as manifested by at least two of the following:

1. A marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics)

GENDER DYSPHORIA – DSM 5

2. A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics)
3. A strong desire for the primary and/or secondary sex characteristics of the other gender
4. A strong desire to be of the other gender (or some alternative gender different from one's designated gender)

GENDER DYSPHORIA – DSM 5

5. A strong desire to be treated as the other gender (or some alternative gender different from one's designated gender)
6. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's designated gender)

B. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning

GENDER INCONGRUENCE

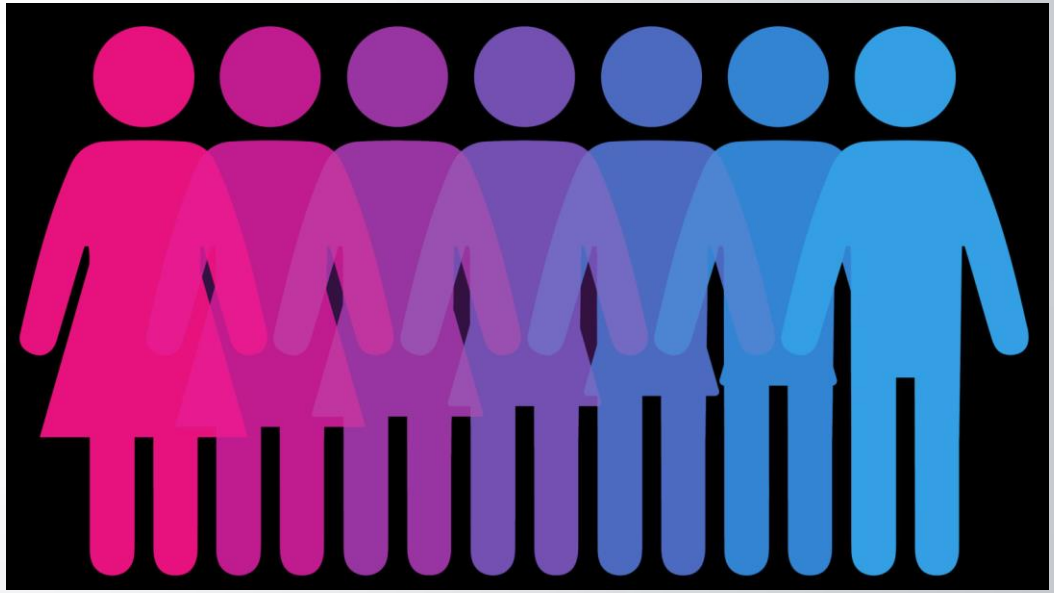
- "Gender Identity Disorder" will be replaced with the term "**Gender Incongruence**" in ICD-11, and will be moved from the chapter on Mental and Behavioral Disorders, to the one on Conditions Related to Sexual Health

TRANSITIONING

- Many trans people choose to transition to a gender role that is concordant with their gender identity
- Typically they make a transition from one gender to the binary opposite

TRANSITIONING

- Gender expression
- Social Transition
  - Adopting a chosen name
  - Identifying one's pronoun's
  - Non-medical gender conformation
  - Coming out



HOW NOT TO TRANSITION

“THEY” - 2017

- Me: How is college?
- H: I met a new friend. They are named Charlie. They are from Tallahassee. They are really cool!
- Me: They? Why are you saying “they”?
- H: They are trans.

“THEY” - 2017

- Me: What do you mean?
- H: Dad, trans… you know, not cis!
- Me: You hate chemistry. I still don’t know what you are talking about!

Feminine	She, her, hers	She went to the library. I spoke to her. The bicycle was hers.
Masculine	He, him, his	He went to the library. I spoke to him. The bicycle was his.
Gender Neutral	They, them, theirs	They went to the library. I spoke to them. The bicycle was theirs.
Gender Neutral	Ze, zir, zirs	Ze went to the library. I spoke to zer. The bicycle was zirs.

NON-MEDICAL GENDER AFFIRMATION

- Laser hair removal
- Gender congruent speech training
- Genital tucking
- Chest binding

GENDER AFFIRMING HORMONE THERAPY

- The use of feminizing and masculinizing hormones to enable the acquisition of secondary sexual characteristics consistent with an individual's gender identity
- Considered a "medical necessity" for TG persons with gender dysphoria

GAHT

- Use of GAHT is associated with:
  - Better quality of life
  - Greater self-esteem
  - Better mood
  - Reduction in psychologic distress
  - Better work performance and job satisfaction

WPATH CRITERIA TO START GAHT

- Persistent well-documented gender dysphoria
- Have the capacity to make a fully informed decision and to consent for treatment
- Must be the legal age of adulthood in the country of treatment.
- Mental or medical concerns must be reasonably well-controlled

WPATH CRITERIA TO PRESCRIBE GAHT

"Medical providers who feel comfortable making an assessment and diagnosis of GD, as well as assessing for capacity to provide informed consent… are able to initiate GAHT."

GAHT AND INFERTILITY

- Both masculinizing and feminizing hormones may lead to irreversible changes in gonadal function
- Patients should be advised to consider gamete storage prior to starting GAHT

Risk level	Feminizing Hormones	Masculinizing Hormones
Likely increase risk	DVT/PE Gallstones Elevated liver enzymes Weight gain Hypertriglyceridemia	Polycythemia Weight gain Acne Androgenic alopecia Sleep apnea
Likely increased risk with presence of risk factors	Cardiovascular disease	
Possible increased risk	Hypertension Hyperprolactinemia or prolactinoma	Cardiovascular disease Hypertension Type 2 Diabetes Psychiatric disease
No increased risk or inconclusive	Breast cancer	Loss of bone density Breast cancer Cervical cancer Ovarian cancer Uterine cancer

H&P PRIOR TO GAHT

- History should focus on co-morbidities that may increase the risks of GAHT
- Psychiatric history, hx of attempted suicide, and current suicidality
- Smoking status (DVT risk)

Breast, genital, and rectal exams are not required before initiation of GAHT

GAHT – CORE TENET

- Establish a hormonal environment that is biologically concordant with the person's gender identity
  - Supplementing exogenous hormones
  - Suppressing endogenous hormones

GAHT- FEMINIZING REGIMENS

Estrogen: 17 β-estradiol: oral, transdermal, or intramuscular

- Less thrombogenic vs conjugated estrogens or ethinyl estradiol
- Accurately measured in plasma

Anti-androgen: Spironolactone

- Androgen receptor antagonist
- Suppressive effect on testosterone synthesis

GAHT- FEMINIZING REGIMENS

Other options:

- 5-α reductase inhibitors
  - Finasteride
  - Dutasteride
- Progestagens
  - Micronized progesterone
  - Medroxyprogesterone acetate

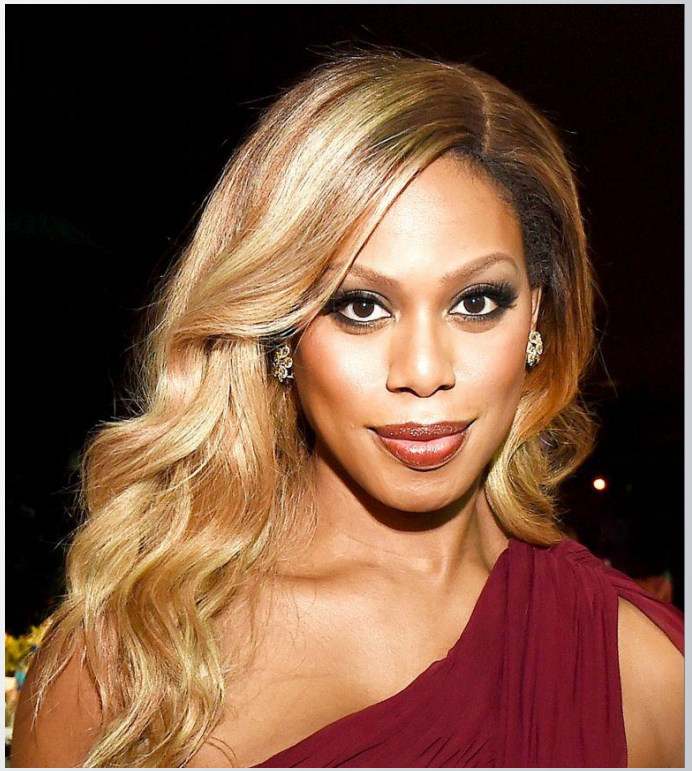
GAHT- FEMINIZING REGIMENS

Hormone Goals:

- Sex hormones in physiologic female range
  - Serum estradiol: 100-200 pg/ml
  - Serum testosterone: < 50 ng/ml

GAHT- FEMINIZING REGIMENS

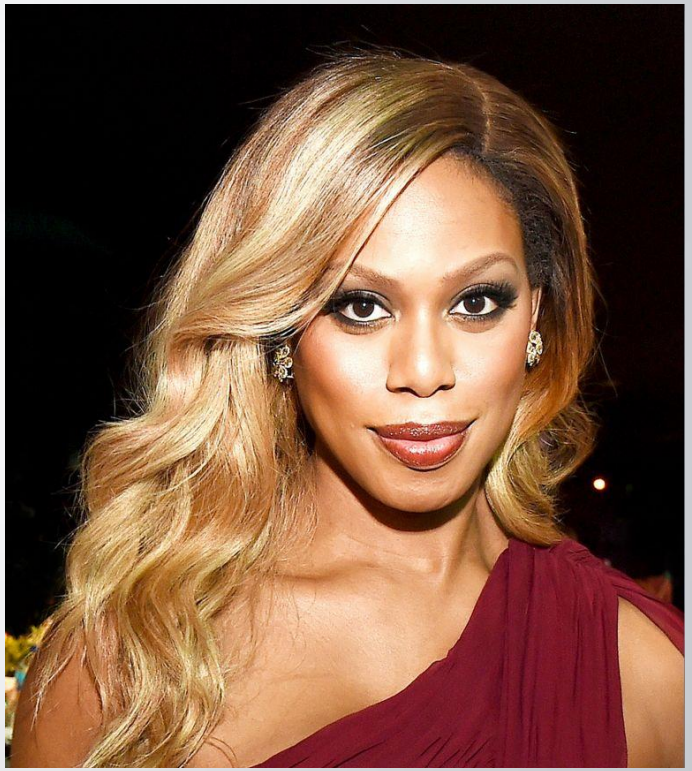
- Promote breast growth
- Softening of the skin
- Reduction of androgenic hair loss
- Fat redistribution from abdomen to hips
- Change in sweat and odor patterns
- Reduced prostate & testicular size



GAHT- FEMINIZING REGIMENS

- Decreased muscle mass/strength
- Reduction in erectile function
- Reduced libido
- Reduction in sperm count and volume of ejaculate

No effect on voice or facial hair growth
Initial changes: 3 months
Maximum Benefit: 3 years



Estrogen	Initial Dose	Maximal Dose	Comments
Estradiol oral	2-4 mg/day	8 mg/day	If > 2 mg is necessary use BID dosing
Estradiol Transdermal	100 mcg	100-400 mcg	Max single patch availability is 100 mcg. Frequency of application is product dependent
Estradiol valerate IM	20 mg IM q 2 wk	40 mg IM q 2 wk	May divide to weekly dosing at patient preference due to cyclic symptoms
Estradiol Cypionate IM	2 mg IM q 2 wk	5 mg IM q 2 wk	May divide to weekly dosing at patient preference due to cyclic symptoms

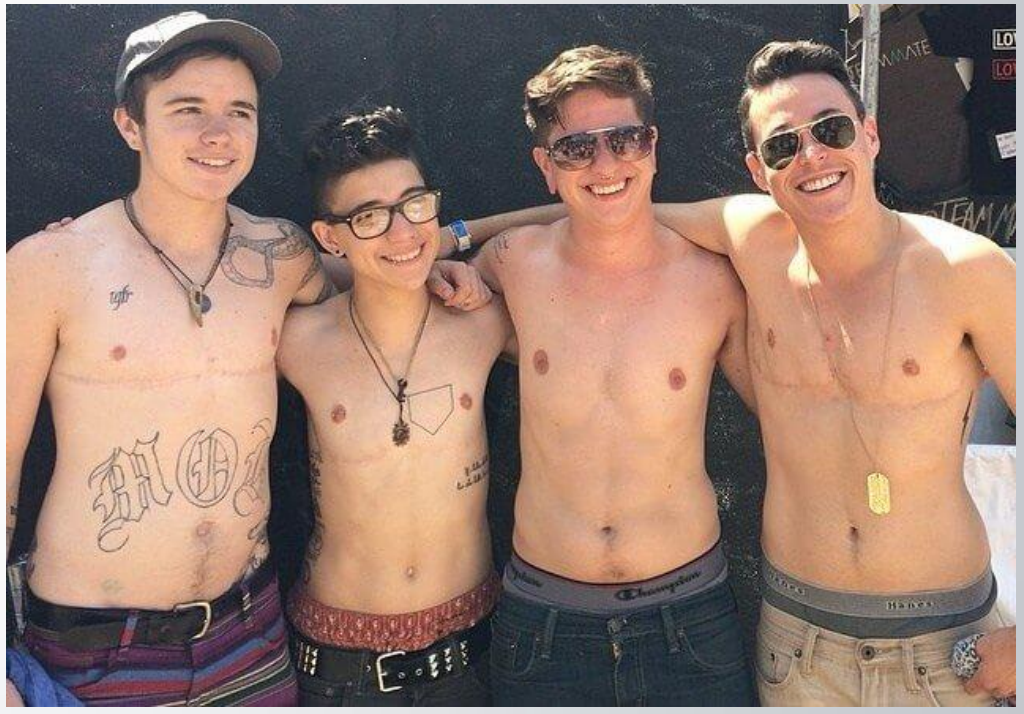
Anti-androgens	Initial Dose	Maximal Dose	Comments
Spironolactone	50 mg/day - BID	200 mg BID	
Finasteride	1 mg/day	5 mg/day	
Dutasteride		0.5 mg/day	
Progestagens			
Medroxyprogesterone acetate (Provera)	2.5 mg qhs	5-20 mg qhs	
Micronized progesterone (Prometrium)		100-200 mg qhs	

GAHT – MASCULINIZING REGIMENS

- Testosterone: IM, SC, transdermal patch/gel, nasal

GAHT – MASCULINIZING REGIMENS

- Change in fat distribution
- Growth of facial hair
- Increase in muscle mass/strength
- Deepening of the voice
- Cessation of menstruation



GAHT – MASCULINIZING REGIMENS

- Clitoromegaly
- Oily skin/Acne
- Vaginal dryness
- Increased libido
- Androgenic hair loss

Initial changes: 3 months
Maximum Benefit: 3 years

GAHT- MASCULINIZING REGIMENS

Hormone Goals:

- Sex hormones in physiologic male range
  - Serum testosterone: 400-700 ng/dl

GAHT- MASCULINIZING REGIMENS

- While testosterone induces amenorrhea it is not an effective means of contraception
- Transmen on testosterone can be offered any form of contraception

Androgen	Initial	Maximum	Comments
Testosterone Cypionate	50 mg/wk IM/SC	100 mg/wk IM/SC	Q2wk dosing at double weekly dose
Testosterone Enthanate	50 mg/wk IM/SC	100 mg/wk IM/SC	Q2wk dosing at double weekly dose
Testosterone 1% topical gel	50 mg q am	100 mg q am	Available in either pump or packet
Testosterone 1.62% topical gel	40.5 – 60.75 mg q am	103.25 q am	Available in either pump or packet
Testosterone patch	4 mg q pm	8 mg q pm	Patches come in 2 mg, 4 mg sizes
Testosterone cream	50 mg	100 mg	
Testosterone 2% axillary gel	60 mg q am	90 – 120 mg q am	One pump = 30 mg

LAB MONITORING

Transmen on GAHT

Baseline:

- CBC, CMP, lipids, estradiol, testosterone, STI screen

Testosterone:

- Q3 months for 1st year, then annually if stable

H/H:

- Androgens are associated with erythrocytosis/polycythemia

Transwomen on GAHT

Baseline:

- CBC, CMP, lipids, estradiol, testosterone, STI screen

Estradiol/Testosterone:

- Q3 months for 1st year, then annually if stable

Prolactin:

- Test only for symptoms

CANCER SCREENING

Based on biologic sex, presence of sex organs:

Transmen need cervical, breast cancer screening

- Chest wall palpation if prior mastectomy
- HPV self-swab

Transwomen need prostate cancer screening

- Breast cancer screening if on GAHT

CASE FOLLOW-UP

"Dee Dee", follow-up

Initial labs:

- HIV+, CD4 = 454
  - Was aware she was HIV+
  - Sexually assaulted, intentionally infected
- Estradiol = 39, Testosterone = 532

CASE FOLLOW-UP

HIV - Referred to Ryan White clinic

- Initiated on Biktarvi

Diagnosed with MDD, GAD, PTSD, in addition to GD

- Started on escitalopram, counseling via Ryan White
- Started on GAHT - PO estradiol, spironolactone (risk of non-treatment – suicidality)

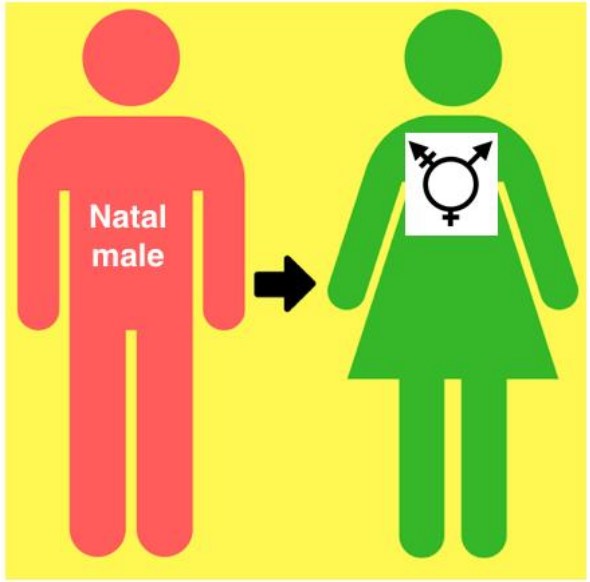
GOALS OF CARE

- The goals of care are to help trans patients achieve a gender identity/expression, in which they feel comfortable.
- This may entail social, medical, and/or surgical transition

Trans Woman (MtF)

Hormone Treatment
- Spironolactone 100-300 mg/day
- Estradiol (IM, oral, transdermal)
- Voice training

Check q3mo then 1-2x yearly
- BMP, K+
- Estradiol goal 100-200 pg/mL
- Testosterone goal < 50 ng/dL



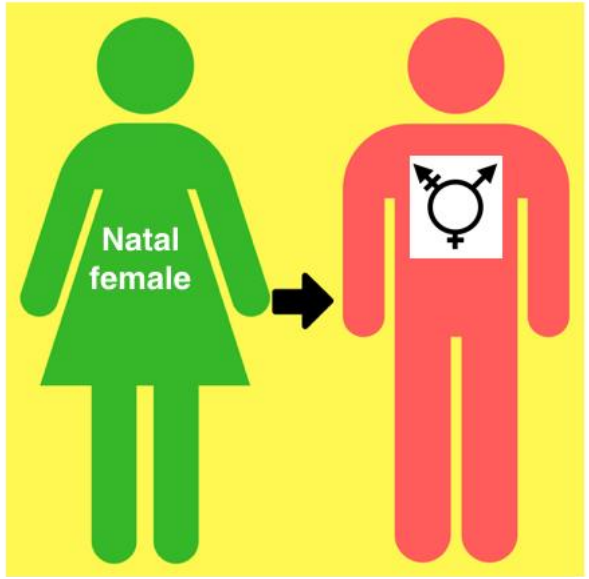
MtF Body Changes
- Scalp hair growth varies
- ↓ Muscle mass
- Soft skin, ↓oil
- ↓ labido
- Breast growth
- ↓ testes, ↓ sperm
- ↓ body hair
- Redistrib body fat

Surgery
- Breast augmentation
- Orchiectomy
- Vaginoplasty

Trans Man (FtM)

Hormone Treatment
- Testosterone (IM, SQ, gel, patch)

Check q3mo then 1-2x yearly
- CBC, Wt, BP, lipids
- Testosterone goal 400-700 ng/dL



FtM Body Changes
- ↑ Muscle mass
- Oily skin, acne
- ↑ labido
- ↓ Breast size
- ↑ body, ↓scalp hair
- Deep voice
- Clitoral enlarge't
- vaginal atrophy
- cessation menses

Surgery
- Mastectomy
- Oophorectomy
- Hysterectomy
- Metoidioplasty
- Phalloplasty

PHYSICIAN RESPONSIBILITY

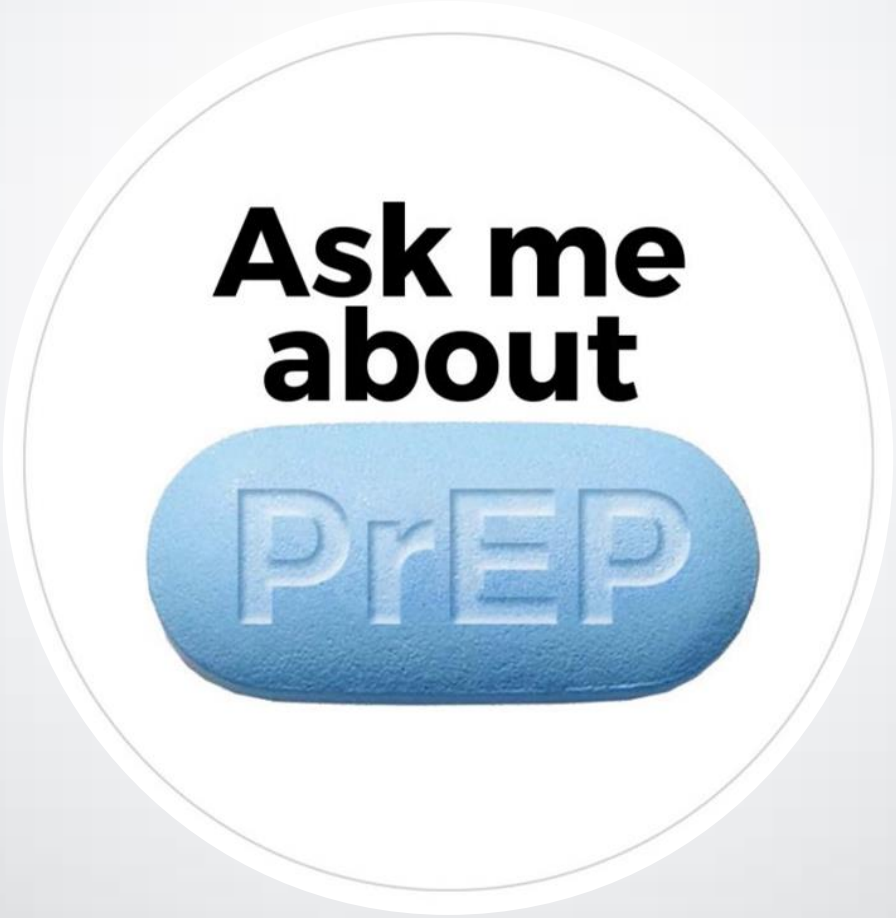
Assist patients in making reasonable, informed decisions about their health care

- Physical health
  - Hormone management
- Mental Health
  - Counseling, and/or medication
- Advocacy

PHYSICIAN RESPONSIBILITY

Assist patients in making reasonable, informed decisions about their health care

- Fertility
  - Gamete banking
- Costs of care
- Establish reasonable expectations
  - When to expect physical changes


Ask me
about
PrEP

RESOURCES

- World Professional Association for Transgender Health Standards of Care: www.wpath.org
- Center of Excellence for Transgender Health Primary Care Protocols: www.transhealth.ucsf.edu
- Transgender Law Center: Health Care Issues: www.transgenderlawcenter.org/issues/health