



Caring for Transgender Patients

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Outline and Objectives

1. Case Presentation
2. Terminology
3. Epidemiology
4. Hormone Therapy
5. Gender Affirming Surgery
6. Communication techniques

Inpatient hospital case:

20 yo individual who identifies as a man (assigned female at birth) with PMH anxiety and bipolar who presents as transfer to ICU for Acetaminophen overdose.

Parents noted that pt had been more depressed recently due to menstrual spotting despite Medroxyprogesterone injections to prevent bleeding. That afternoon, the parents found a receipt for 4 bottles of Acetaminophen. He has extensive psych hx including cutting and attempted suicide, they brought him to the ED.

In the ED, CMP/CBC/UDS within normal limits. Tylenol level returned elevated at 314. He received fluids and one dose of N-acetylcysteine prior to transfer.

Past Medical History

20 yo transgender man (FtM) with gender dysphoria who presented with intentional Tylenol overdose

Generalized anxiety disorder
Bipolar depression with psychotic features
Anorexia and bulimia
Hypothyroidism

Medications

20 yo transgender man (FtM) with gender dysphoria who presented with intentional Acetaminophen overdose

Quetiapine
Depakote
Levothyroxine
Depo medroxyprogesterone
Former lithium use

Social History

20 yo transgender man (FtM) with gender dysphoria who presented with intentional Acetaminophen overdose

No smoking
No alcohol use
No drugs
No recent sexual activity (recent STI testing normal)
Adopted from Russia as infant
Lives with parents and younger brother. Mother states “I support my child” in a defensive way when asked about child being transgender
Not interested in having children

Hospital Course

Patient's Acetaminophen level down-trended, and monitoring of LFTs revealed no signs of acute liver injury. Psychiatry was consulted, who transferred the patient to inpatient psychiatric unit for evaluation and medication management.

Hospital course was medically uncomplicated, but psychologically did take a toll on the patient. The patient reported being called a woman and referred to by legal name and with female pronouns multiple times, despite his nurse's best attempts to communicate this information.

The patient eventually returned to baseline and was discharged to outpatient psych follow up. They were also referred to Transgender Primary Care Clinic.

Final Diagnosis

Acetaminophen Overdose

Suicide Attempt

Bipolar Depression

Gender Dysphoria

ICD-9 302.6

ICD-10 F64.1

- **Gender Dysphoria in Adolescents and Adults 302.85**
- A marked **incongruence** between one's **experienced/** expressed gender and **assigned** gender, of at least 6 months' duration, as manifested by at least two of the following:
 - 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).
 - 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).
 - A strong desire for the primary and/or secondary sex characteristics of the other gender.
 - A strong desire to be of the other gender (or some alternative gender different from one's assigned gender).
 - A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender).
 - A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender).
- The condition is associated with clinically significant **distress** or impairment in social, occupational, or other important areas of functioning.

Terminology

LGBTQ: Lesbian, Gay, Bisexual, Transgender, Queer

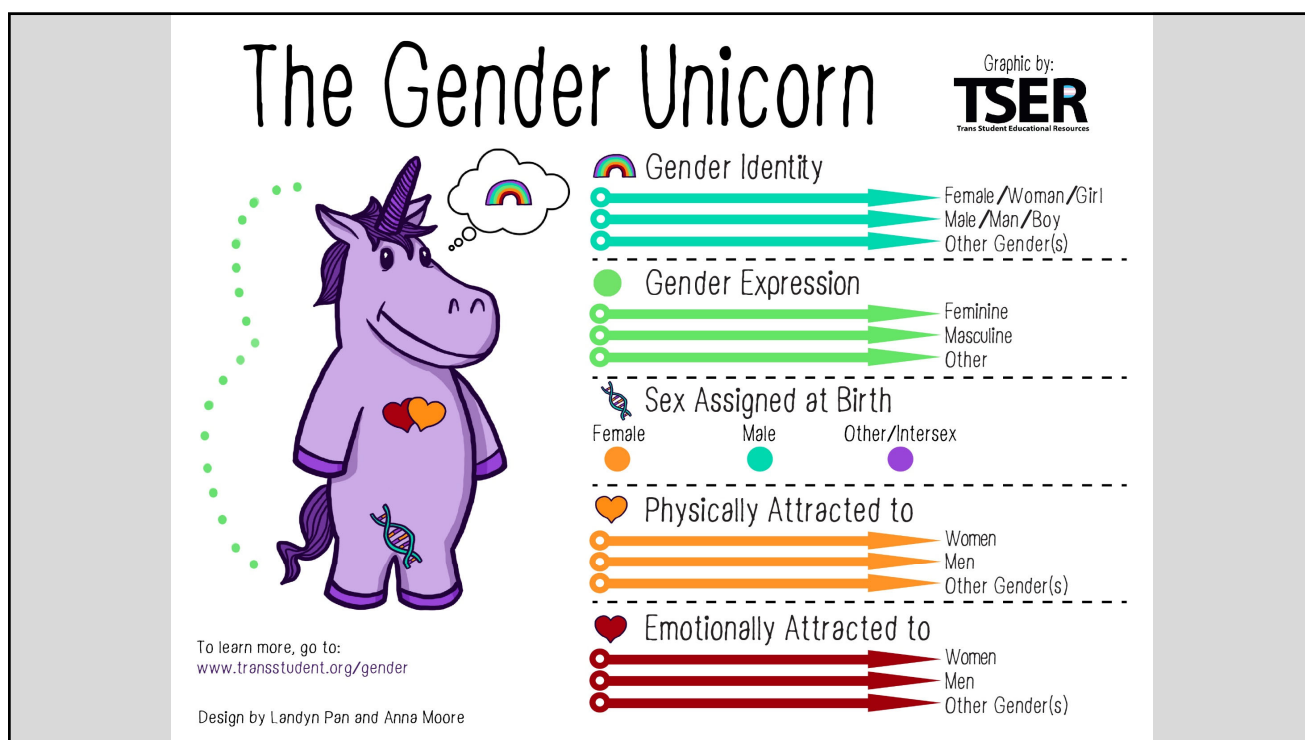
Gay & Lesbian: people who have (or desire to have) an intimate relationship with individuals of the same gender

Bisexual: people who have (or desire to have) an intimate relationship with individuals of the same or different gender

Asexual: people with no sexual desire; different from the choice to remain celibate

Terminology

- Sex- sex assigned at birth, based on assessment of external genitalia, as well as chromosomes and gonads.
- Gender Identity- A person's internal sense of self and how they fit into the world, from the perspective of gender.
- Gender expression- The outward manner in which an individual expresses or displays their gender, including dress, hairstyle, or mannerisms. Gender identity and gender expression can be different in an individual.



Terminology

- Transgender: A person whose gender identity differs from the sex that was assigned at birth. May be abbreviated to trans.
 - Transgender man- someone with a male gender identity and a female birth assigned sex
 - Transgender woman- someone with a female gender identity and a male birth assigned sex.
 - A non-transgender person may be referred to as cisgender.
- Gender nonconforming: A person whose gender identity differs from that which was assigned at birth, but may be more complex, fluid/ less clearly defined than a transgender person. Genderqueer is another term used by some with this range of identities.
- Nonbinary: transgender or gender nonconforming person who identifies as neither male nor female.

Terminology

Transgender persons choose to present themselves in a variety of ways

- Some medically or surgically alter their body to affirm their gender identity
- Some change hair/dress
- Some make no changes to their appearance
- Many will change their given name

Sexual orientation and gender identity are separate concepts

- A transgender person might consider themselves straight, GLB, neither, other, etc.

2015 U.S. Transgender Survey (USTS)

- 2015 survey of 27,715 transgender individuals
- Racially and socioeconomically diverse sample
- Respondents from all 50 states
- Survey topics include: Education, Employment, Health, Family Life, Housing, Public Accommodations, Identification Documents, and Police and Incarceration

Key NON-HEALTH Findings

- 30% of respondents who had a job in the past year reported being fired, denied a promotion, or experiencing some other form of mistreatment related to their gender identity or expression.
- **The unemployment rate among respondents (15%) was three times higher than the unemployment rate in the U.S. population (5%),** with Middle Eastern, American Indian, multiracial, Latino/a, and Black respondents experiencing higher rates of unemployment.
- Nearly one-third (29%) were living in poverty, more than twice the rate in the U.S. population (14%).
- Nearly one-third (30%) of respondents have experienced homelessness at some point in their lives.

Health Care findings

- One-third (33%) of those who saw a health care provider in the past year reported having at least one negative experience related to being transgender
- 23% of respondents did not see a doctor when they needed to because of fear of being mistreated as a transgender person
- 1.4% were HIV positive, compared to 0.3% of general population
- One in four (25%) respondents experienced a problem in the past year with their insurance related to being transgender
- **Forty percent (40%) have attempted suicide *in their lifetime*, nearly nine times the rate in the U.S. population (4.6%).**

James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). *Executive Summary of the Report of the 2015 U.S. Transgender Survey*. Washington, DC: National Center for Transgender Equality.

LGBT in Columbus

“From the obvious (San Francisco) to the surprising (Columbus), Richard Florida and Gary Gates crunched the numbers to rank the top gay cities in the country”

Estimated gay & lesbian population in Columbus:

68,300 or 5.8%

Developed by [Gary Gates](#), a demographer at UCLA’s [Williams Institute](#), the Gay/Lesbian Index value tells you how the proportion of same-sex couples among all households of a given metro area compares to the average for the entire U.S.

Our Transgender Primary Care Clinic

The care team at The Ohio State University Wexner Medical Center's Transgender Primary Care Clinic has experienced and unique training in providing care to individuals identifying as transgender or gender nonconfirming.

Services provided:

- Primary care, including assistance with meeting your goals to achieve a healthy lifestyle
- Pregnancy prevention
- STI testing and treatments
- HIV prevention services
- HIV Pre-Exposure Prophylaxis (PrEP), for individuals at high risk for contracting HIV
- Vaccinations
- Referrals for gender affirming surgery
- Hormone replacement therapy with an endocrinologist on staff to assist with level adjustments (following an informed consent model)
- Care for depression, anxiety and other conditions affecting your emotional health, including gender dysphoria and transgender-specific counseling
- Cancer screenings including pap smears, referrals for mammograms, colonoscopy and other recommended tests

Our Transgender Primary Care Clinic

Our Team



Kristin Connors, MD



Melissa Davis, MD, MPH



Andrew Keaster, MD



J. Eric Questel, DO



Robert Gotfried, DO, FAAFP

Other concerns

- Tucking, Binding, Packing
- Hair removal
- Vocal changes
- Identity documents

Final Summary

Respect the self-identification of transgender patients (name and pronouns)

Screen and treat concomitant mental health disorders

Do not be afraid to ask questions in a respectful manner

References

- ACOG Committee on Health Care for Underserved Women. Committee Opinion No. 512. Health care for transgender individuals. December 2011. Retrieved from <http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Health-Care-for-Transgender-Individuals>
- American Psychiatric Association. Gender dysphoria. In: Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, American Psychiatric Association, Arlington, VA 2013. p.451.
- Callen Lorde Community Health Center. 2012 *Primary for the provision of cross-gender hormone therapy*. Retrieved from http://callen-lorde.org/graphics/2012/10/TG_Protocol_Request_Form2.pdf
- Gay and Lesbian Medical Association. 2012 *Top 10 things transgender persons should discuss with their healthcare provider*. Retrieved from: <http://www.glma.org/index.cfm?fuseaction=Page.viewPage&pageID=692>
- Tangpricha, V. Treatment of transsexualism. UpToDate. Retrieved from <http://www.uptodate.com/contents/treatment-of-transsexualism>
- UCSF Center of Excellence for Transgender Health. 2012 *Primary care protocol for transgender patient care*. Retrieved from <http://transhealth.ucsf.edu/protocols>
- World Professional Association for Transgender Health. 2011 *Standards of care for the health of transsexual, transgender, and gender-nonconforming people*. 7th version. Retrieved from http://www.wpath.org/uploaded_files/140/files/IJT%20SOC,%20V7.pdf



Medical Gender Transition

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Patient case: Rose

- Rose (she/her) is a 22yo transgender female here for a new primary care visit. She has not seen a doctor since childhood. She was assigned male at birth but has identified as female for as long as she can remember. She socially transitioned at age 18 and her family and friends call her by her preferred name and pronouns. She is interested in medically transitioning in order to feel more comfortable, avoid being misgendered in public, and to have a body which is more congruent with her internal identity.

Medical Transition

- Gender Affirming Hormone Therapy (also called Cross Sex Hormone Therapy/Hormone Replacement Therapy (HRT)
 - 62% have had hormone therapy, additional 23% hope to have it in the future
- Gender affirming surgery
 - a smaller percentage have had surgery
- Medical transition can also include voice therapy, hair removal and other interventions

Gender Affirming Surgery

	Male-to-Female	Female-to-Male
Misc surgery	Tracheal Shave Facial Feminization	
“Top” surgery	Breast Augmentation	Chest Reconstruction
“Bottom” surgery	Orchiectomy	Hysterectomy Oophorectomy Vaginectomy
Genital sex reassignment	Vaginoplasty	Phalloplasty Metoidioplasty

Criteria for Hormone Therapy: WPATH

1. Persistent, well-documented gender dysphoria/gender incongruence
2. Capacity to make an informed decision
3. Age of consent
4. If present, serious medical or mental health concerns should be reasonably well-controlled

We use an **informed consent model** which involves a detailed, individualized discussion of the risks/benefits of treatment.

Patient Case: Rose

- Rose has a history of migraines, asthma, anxiety and major depressive disorder in her teen years which are now under better control since she socially transitioned. She doesn't take any medications.
- works at a warehouse as a picker
- smokes 1 ppd
- drinks socially about 2 drinks per week and uses no drugs
- Sexually active, partners who were assigned male at birth
- vital signs: BP 120/74, HR 80, RR 16
- rest of physical exam is unremarkable

Initiation and Monitoring of Feminizing Hormone therapy

- Baseline Chem 6 (BMP)
- Consider baseline LFTs, Lipid panel, A1c, TSH as appropriate
- Offer screening for age/sex assigned at birth as recommend by the USPSTF
 - mammography screening should begin 5 years after starting hormone therapy
- Smoking cessation
- Offer screening for HIV, hepatitis, syphilis as the incidence is higher among trans women than the general population

Feminizing hormone therapy

Contraindications: Estrogen Dependent Cancer, DVT/PE

Estradiol 1-6 mg PO daily

Estradiol valerate 20-40mg IM every 7 or 14 days

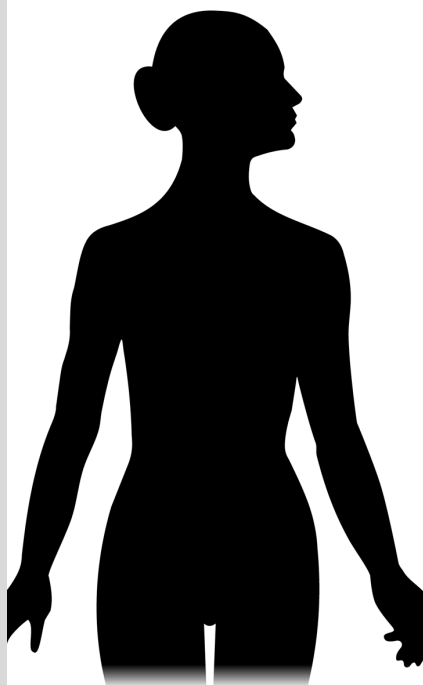
Estradiol cypionate 2-5mg IM every 7 or 14 days

Estradiol patch 0.025mg-0.1mg/24h (weekly or biweekly)

Spirolactone 100-400mg PO daily in 2 divided doses

Finasteride, dutasteride, bicalutamide

Micronized progesterone 100-200mg daily, medroxyprogesterone acetate 2.5-5mg daily



Changes with Feminizing Hormone Therapy

1-3 months	Skin changes, emotional changes, reduced sex drive
3-6 months	Decreased muscle, nipple tenderness
6-12 months	Breast buds continue to develop, body hair changes, body fat redistribution progresses
3-5 years	Complete breast development

Feminizing Hormone Therapy Risks

- **DVT/PE—risk increases with age/years of use**
- **Stroke—risk increases with age/years of use**
- Permanent breast growth--cancer risk
- Decrease in muscle mass can cause strains and other injuries
- Hyperkalemia/AKI, hypotension and dehydration (spironolactone)
- HTN (estradiol)
- Gallstones
- Migraines
- Hepatitis
- Infertility*
- Prolactinoma (rare, highest association with ethinyl estradiol and cyproterone acetate which are not used in US).
- Drug interactions (careful with PO medroxyprogesterone acetate)

Patient Case: Rose

- Rose meets with the smoking cessation educator and you start her on bupropion to assist with quitting.
- You counsel her about HIV risk and offer PreP
- She decides to undergo fertility preservation and freezes a sperm sample
- Her baseline creatinine and potassium are within normal limits
- Plan: start her on spironolactone 50mg PO to help reduce her endogenous testosterone with a plan to start estradiol as soon as she is nicotine free.

Monitoring Feminizing Hormone Therapy

- Testosterone level (target is below 55mg/dL), Estradiol level (target is mid-cycle peak, generally 100-300mg/dL) with each dose adjustment or approximately every 3 months during the first year
- Monitor chem 6 with each dose adjustment of spironolactone
- Use shared decision making and maintain a harm-reduction approach with each step

Fertility with Feminizing Hormones

- Estrogen is not a birth control! Individuals who engage in sexual activity that could result in pregnancy should be counseled on the need for contraception.
- However, estradiol therapy can cause irreversible infertility. Patients who start feminizing therapy should be counseled on options for fertility preservation.

Patient case: Rose

- Rose returns for follow up at 3 months. She states she is tolerating the spironolactone without any adverse effects. She has noted an improvement in her skin and has started having some nipple tenderness which she hopes will turn into breast growth. A repeat Creatinine and potassium is within normal limits. She has quit smoking completely. You start estradiol 2mg PO and increase her spironolactone to 100mg daily.

Patient Case: Aaron



- Aaron (they/them) is a 30yo non-binary person (assigned female at birth) with a past medical history of obesity, autism spectrum disorder and fibromyalgia. They do not smoke, drink or use drugs. They work as a freelance animator. They changed their name several years ago and have come out as non-binary to their family and partner. Aaron still notes significant dysphoria related to their gender incongruence and this worsens every month during their menstrual cycle to the point where they experience suicidal ideation. Aaron has been researching hormone therapy and brings in a list of goals including to stopping their periods and growing a full beard in order to appear more masculine.

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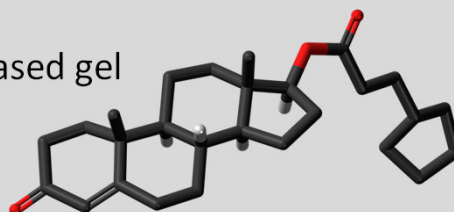
Nonbinary patients

- Treatment should be targeted towards the issues that cause the most dysphoria for the patient.
 - This sometimes includes menstrual suppression without hormone therapy OR surgery without any hormone therapy.
- In this case, Aaron's goals would be amenorrhea and facial hair, and it would be appropriate to start them on masculinizing hormones.
- Regimens often lower dose but not always.

Masculinizing Hormone Therapy

Testosterone cypionate 200 mg/mL or Testosterone enanthate 200mg/mL

- given in self-injections every 7 or 14 days
- Topical Testosterone 1% or 1.62% alcohol-based gel
- Testosterone pellets



Other rarely used options FDA approved for cis males

- Subcutaneous T enanthate pen
- Transdermal patch
- Oral testosterone undecanoate
- Nasal testosterone gel

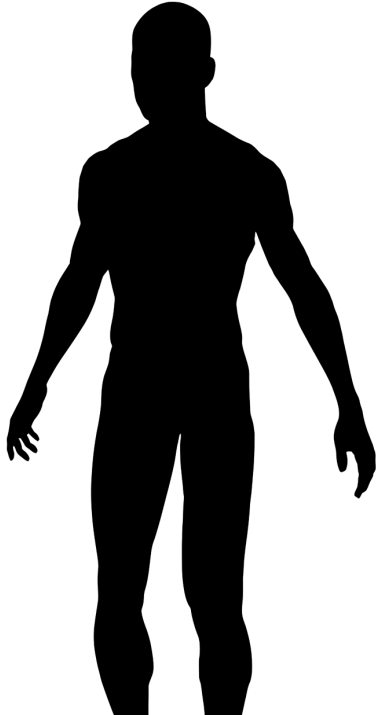
Image Author: Jynto (CC0 1.0)

Initiation and Monitoring

- Baseline CBC
- Consider baseline testosterone level, TSH, LFTs, lipid panel, A1C
- Offer age-appropriate screening per USPSTF
- Smoking cessation

Monitoring

- CBC at 0, 1, 3 and 6 months during the first year then yearly or with each dose adjustment.
- Testosterone levels at 1,3, and 6 months then yearly or with dose adjustment.
- Maintain a harm reduction approach and use shared decision making at every step



Changes with Testosterone

1-3 months	Skin changes, sweating, emotional changes, increased sex drive
3-6 months	Increased muscle, voice change, body fat redistribution
6-12 months	Facial and body hair growth, body fat redistribution progresses, clitoromegaly
4-5 years	Full body hair changes, facial hair

Testosterone risks and side effects

- Polycythemia
- Acne
- Emotional lability / aggression
- Increased libido
- Headaches
- HTN
- Infertility*
- Hepatitis (rare with current available preparations)
- Drug interactions
- Male pattern baldness
- Increased risk of heart disease (lipid profile masculinizes)
- Swelling of hands, feet, and legs
- Weight gain (generally occurs with initiation and then stabilizes)
- Hot flashes

Fertility with Testosterone

- Testosterone is not birth control! Individuals who engage in sexual activity that could result in pregnancy should be counseled on the need for contraception.
- Any form of contraception is appropriate as long as it is acceptable to your patient.
- Many prefer a non-hormonal or progesterone-only method. IUDs and implants are highly effective and well-tolerated.
- Testosterone is a teratogen and contraindicated in pregnancy.

Provider Resources

- WPATH
 - Transgender Health Provider Certification
 - Standards of Care, version 8
 - http://www.wpath.org/site_page.cfm?pk_association_webpage_menu=1351&pk_association_webpage=3926
- UCSF Center for Transgender Excellence
 - Primary Care Protocols
 - <http://transhealth.ucsf.edu/trans?page=protocol-00-00>
- Callen Lorde Community Health Center
 - Protocols for the Provision of Cross-Gender Hormone Therapy
 - <http://callen-lorde.org/transhealth/>

Closing points:

- Gender transition is a unique opportunity for patients to improve their overall health.
- Therapy should be individualized to each patient according to their risk factors, goals, preferences, cost and ease of use.
- The lowest dose possible should be used to achieve the desired effects. The medication should be titrated to effect. Hormone reference values for the identified gender can also be used to gauge progress and safety.
- All patients on hormone therapy should be counseled on fertility preservation, family planning and contraception needs.