Gender Affirming Care for Primary Care Providers

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WITH A LITTLE HELP FROM MY FRIENDS…

Objectives:

- To describe the health and emotional needs of the nonbinary/transgender community
- Identify attitudes, actions, behaviors that create a gender-affirming clinic environment
- Define gender identity, gender dysphoria, and gender affirming treatment
- Describe the benefits, risks, and monitoring protocols of gender affirming hormone therapy

GENDER ≠ SEX

Sex:

- Based on the biological characteristics used to label people as male or female such as X and Y chromosomes, internal and external sex organs
- Conventionally assigned at birth

Gender (identity):

- Ones internal sense of being male, female, neither or both
- Cisgender: Gender identity aligns with sex recorded at birth
- Transgender: Gender aligns with opposite gender than sex recorded at birth
- Nonbinary/ Gender-nonconforming: Identify with a gender that is not male or female, or has features of both
- Described in patient's own words

Gender Dysphoria

Being transgender is not a *disorder (gender identity disorder is **out**)*

Gender dysphoria: DSM-5 diagnosis of discomfort/distress due to misalignment of sex recorded at birth and gender identity; NOT experienced by all patients who are gender non-conforming

Gender incongruence: Proposed ICD-11 term for individuals whose gender identity does not align with sex recorded at birth

Transgender population is more likely to….

Lack insurance

Poor access to preventive care

Suffer delays in diagnosis

Delay care due to discrimination

Be refused treatment by a healthcare provider

Have limited covered benefits for needed healthcare services

Teach a provider how to care for them

Be poor

Be unemployed

Be victims of violence

Attempt suicide

Have HIV

Chronic stress, shame, guilt

Cahill S. PLOS ONE, 2014.
AAMC, Curricular Changes for LBGT, 2014.
U.S. Transgender Survey, National Center for Transgender Equality, 2017.

What Patients Need: An Affirming Environment

1. Consistent use of chosen pronouns, verbally and in EMR
2. Consistent use of chosen name, verbally and in EMR
3. A gender inclusive environment:
   - Signage
   - Gender neutral bathroom
   - Patient education materials (with faces that look like them!)
   - All patient facing staff to be gender competent
   - Diverse workforce
   - Gender neutral language: “Partner/spouse” instead of “husband”, “parent” instead of “mother”

What Patients Need: An Affirming Environment

4. Validation of their struggles with health disparities and discrimination

5. Extra time for clinic visits to plan for heavy emotions

6. Educated primary providers on best practices for care

7. A network of specialists that can help care for them: UPMC working on compilation of this (surgeons, medical subspecialists, derm, ENT, vocal therapy, psych, legal)

8. Ample patient education resources

Don’t Overthink It, Just Ask!

Treat pronouns as a vital sign, ”My name is Dr. Tilstra, I use she/her pronouns, what is your name?”

“What are your pronouns?” “What pronouns do you use?”

“What is your gender identity?”

“Tell me about your gender identity”

“Tell me about your experiences with gender”

- If you/someone makes a mistake, apologize and move on

Gender

Affirming

Treatment

Gender Affirming Treatment

- Medical or surgical interventions that gender non-conforming individuals *might* want
- Process of aligning physical characteristics and/or gender expression with gender identity
- Treatment is different for everyone: What alleviates one patient's gender dysphoria may not alleviate another patient's gender dysphoria
- Patients with untreated gender dysphoria are at high risk for morbidity and mortality

Safer JD, Tangpricha V. In the Clinic: Care of the Transgender Patient. 2019

Types of Gender Affirmation

Social transition: The way one presents oneself in public including. → name, clothing, and hairstyle

Medical transition: Medical treatments that help achieve desired gender-related features including → hormone therapy, hair removal, speech therapy

Surgical transition: Surgical procedures performed to achieve desired gender-related features including → chest, facial, and genital surgeries

Legal transition: Changing the name and gender markers on legal documentation (i.e. driver's license, passport) to reflect one's gender identity

Criteria for Hormone Therapy

1. Persistent, well-documented gender dysphoria
2. Capacity to make a fully informed decision and to consent for treatment
3. Age of majority in a given country
4. If significant medical or mental health concerns are present, they must be reasonably well controlled

**who makes this determination?

WPATH WORLD PROFESSIONAL ASSOCIATION for TRANSGENDER HEALTH

Gender-affirming Providers

- WPATH SOC 7: “WPATH strongly encourages the increased training and involvement of primary care providers in the area of feminizing/masculinizing hormone therapy”
- Primary providers can diagnose, consent for, and prescribe gender affirming therapy
- If you understand the DSM diagnosis of gender dysphoria, you can diagnosis it
- Medications used (estradiol, testosterone, spironolactone, etc) are used to treat other medical conditions and are not necessarily more lethal/risky than other drugs we use (anticoagulants/antiepileptics/psych drugs etc)

The First Visit

Identify, describe, and document gender dysphoria

- Timeline of feelings/thoughts
- Gender expression
- What is dysphoric? Parts of body- voice, pelvic area/chest, menses/fertility, hair, body shape, muscle mass

Identify, describe, and document patient's wishes for treatment of gender dysphoria, "Gender Affirmation Plan"

Identify, describe any prior hormone, surgical treatments, complications, provider team (names/numbers of prior surgeons is important)

The First Visit: Risks for Therapy

- Family/personal history of VTE, CAD, sudden cardiac death, lipid disorders, hormone sensitive cancers
- Unstable mental health, hx of mental health (SI/hosp), treatments and teams UTD with cancer screening? Undiagnosed vaginal bleeding?
- Smoking
- HTN
- Obesity
- Logistics with follow-up, can they get labs? Where?
- Discordance with expectations of hormones

The First Visit

- Provide information about the expected effects from hormones
  - Discuss the 3 A's: *Affirming, Annoying, Adverse Effects*
- Discuss aspects that hormones do NOT change
- Discuss reproductive plans
- Obtain baseline labs
- Provide educational resources
- Share timeline/process for obtaining hormones

The Second Visit

- Discuss reproductive plans, again
- Any abnormal labs
- Discuss what the patient has learned, method of administration patient prefers (these patients are educated!)
- Revisit the 3 A's
- Benefits of treatment
- Consent, however you feel comfortable doing this
- Teach administration of medications

Feminizing Hormone Therapy

Estrogens (17-beta estradiol, NOT *Ethinyl* estradiol)

- oral
- sublingual
- injection

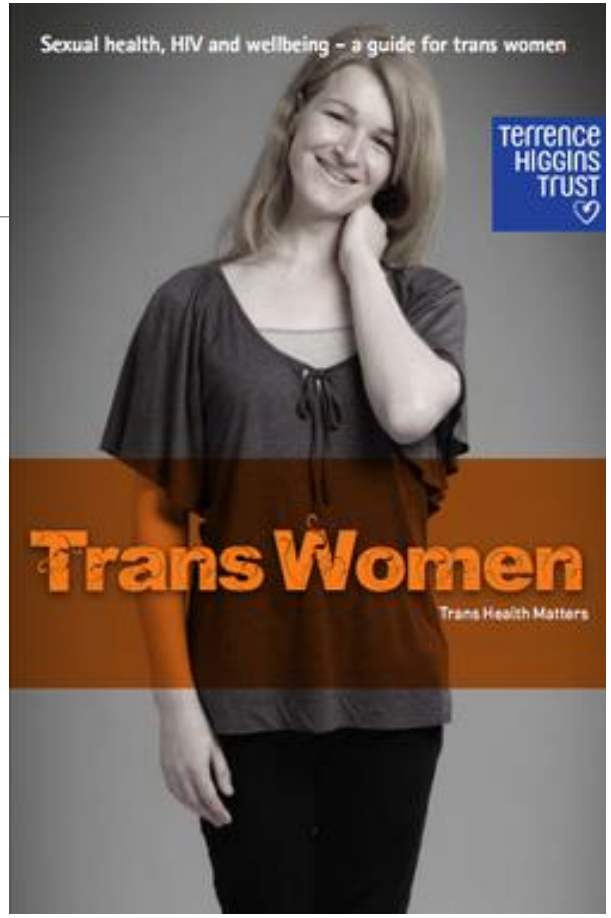
Spironolactone (anti-androgen)

5-α reductase inhibitors (finasteride, dutasteride)

- for suppression of male-pattern baldness, skin changes, decreased body hair

Sometimes progesterone (controversial)

- May help breast growth (provera)



[15]WPATH Standards of Care.

Sample Regimens

Hormone	**Initial-low**	**Initial**	**Maximum[c]**	**Comments**
Estradiol oral/ sublingual	1mg/day	2-4mg/day	8mg/day	if >2mg recommend divided bid
Estradiol transdermal	50mcg	100mcg	100-400 mcg	Max single patch dose available is 100mcg. Changed every 3-4 days
Estradiol valerate IM[a]	<20mg IM q 2 wk	20mg IM q 2 wk	40mg IM q 2wk	May divide dose into weekly injections for cyclical symptoms
Estradiol cypionate IM	<2mg q 2wk	2mg IM q 2 wk	10mg IM q 2 wk	May divide dose into weekly injections for cyclical symptoms

Anti-Androgen Regimens

Name	Route	Initial Dose	Maximum Dose	Microdose
Spironolactone	PO	25-50 mg/day	200 mg/day	25 mg/day
Finasteride	PO	1-5 mg mg/day	5 mg/day	1 mg/day
Dutasteride	PO	0.5 mg/day	0.5 mg/day	

Adapted from: transcare.ucsf.edu/guidelines and Tangprincha V, Safer JD. Transgender Women: Evaluation and Management. In: *UpToDate*, Post TW (Ed), UpToDate, Waltham, MA.

Feminizing Transition: Change Timeline

Decreased libido
Decreased spontaneous erections

Initiation | 3 months | 6 months | 9 months | 12months

Redistribution of body fat
Decrease in muscle mass, strength
Softening of skin
Breast growth (2 years)
Breast pain
Decreased testicular volume

Affirming and Annoying?

Decreased terminal hair growth
Male pattern baldness

Hembree WC. et al J Clin Endocrinol Metab. 2009.

Adverse Effects Associated with Estrogen/Antiandrogen Regimens

Likely increased risks

- Venous thromboembolic disease
- Hypertriglyceridemia
- Gallstones
- Weight gain
- Transaminitis

Possible risks

- Hypertension
- Diabetes
- Cardiovascular disease
  - Hyperprolactinemia
- AKI
- Hyperkalemia
- Orthostatic hypotension
- Emotional Instability*

Contraindications

VTE (can use transdermal)
End-stage liver disease
Active/unstable cardiac disease
Active hormone-sensitive cancers

Goal Levels

(Total) Testosterone: <50-55mg/dl (UCSF and Endocrine Society)

Estradiol:

- physiological range for menstruating females 50-375 pg/ml our epic lab) (UCSF)
- 100-200pg/ml (Endocrine Society)

Practical Tips for Estrogen/Antiandrogen Regimens

- Patch > pills, safer for VTE risk
- Often need multiple patches applied at one time to achieve adequate dosing
- >40yo change to transdermal formulations
- Estrogen may affect the metabolism of other drugs – data for PrEP, anti-epileptic drugs
- Early orchiectomy can be beneficial in patients that are poor hormone candidates
- Starting estradiol slow and without spironolactone initially may help facilitate breast development (Wierckx, J Sex Med, 2014)

Masculinizing Hormones

Testosterone

- IM form most common
- Transdermal (Androgel), patches
  - Expensive, fall off, site reaction

Progestins

- Used for menstrual suppression early in hormone therapy

[15]WPATH Standards of Care.

Sample Regimens

Androgen	Initial - low dose[b]	Initial - typical	Maximum - typical[c]	Comment
Testosterone Cypionate	20 mg/week IM/SQ	50mg/week IM/SQ	100mg/week IM/SQ	For q 2 wk dosing, double each dose
Testosterone Enthanate	20mg/week IM/SQ	50mg/week IM/SQ	100mg/week IM/SQ	II
Testosterone topical gel 1%	12.5-25 mg Q AM	50mg Q AM	100mg Q AM	May come in pump or packet form
Testosterone patch	1-2mg Q PM	4mg Q PM	8mg Q PM	Patches come in 2mg and 4mg size. For lower doses, may cut patch
Testosterone cream	10mg	50mg	100mg	II
Testosterone axillary gel 2%	30mg Q AM	60mg Q AM	90-120mg Q AM	Comes in pump only, one pump = 30mg

Masculinizing Transition: Change Timeline

Acne
Cessation of menses
Increased sex drive

Initiation 3 months 6 months 9 months 12months

Clitoral enlargement*
Vaginal atrophy
Fat redistribution

Facial/body hair growth*
Scalp hair loss
Increased muscle mass/strength
Deepening of voice*

Affirming and Annoying!
**Not reversible*

Hembree WC. et al J Clin Endocrinol Metab. 2009
WPATH Standards of Care 7th Version, 2009

Adverse Effects Associated with Testosterone Use

Likely increased risks

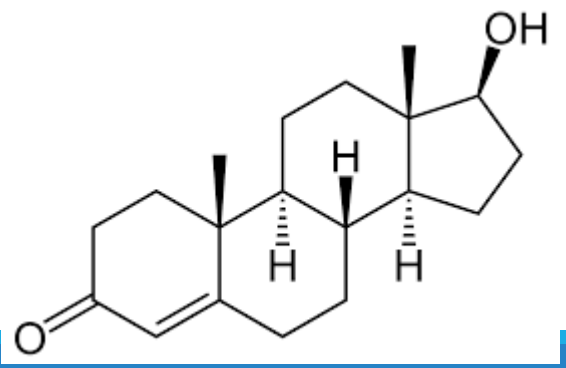
- Polycythemia
- Weight gain
- OSA

No risk

- Breast, ovarian, cervical, uterine cancer
- Bone loss

Possible risks

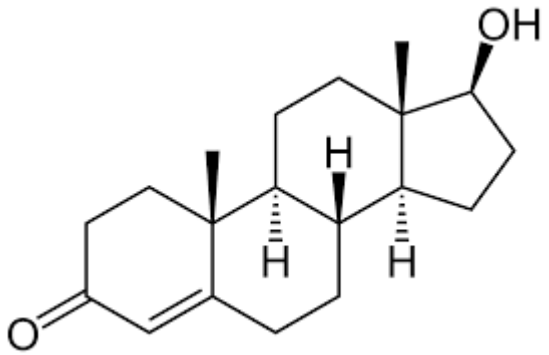
- Hyperlipidemia
- Hypertension
- Cardiovascular disease (with other risk factors)
- Transaminitis
- Destabilization of mood DO
- DM2



WPATH Standards of Care 7th Version, 2009

Contraindications with Testosterone Use

- Unstable psychiatric illness
- Polycythemia with Hct >55%
- Unstable coronary disease
- Pregnancy
  - Need to be on highly effective birth control if applicable
- Hormone sensitive cancers
- Undiagnosed vaginal bleeding



Goal Levels

Clinical target: cessation of menses at 6 months

(Total) Testosterone:

- physiological range for males: 250-1100mg/dl, per our Epic
- I generally like to keep <1000mg/dl

Estradiol:

- physiological range for males: 6-54 pg/ml per our Epic

Practical Tips for Masculinizing Hormones

- Can be injected both subQ or IM
- Patches fall off and frequently cause a dermatitis
- With gels, be cautious of transfer to partners and pets
- Alpha blockade can be helpful for male pattern baldness
- Acne can be very severe

The Art of Hormones

- Driven by patient goals, side effects, levels, response, provider comfort
- In general, I start at low-initial dose and work up, Dr. Ufomata is more aggressive
- When titrating, consider Q2-3M intervals to check for side effects, affirming characteristics, weight, BP, mental health, labs, including hormone levels
- If all ok, we can increase
- Usually, patients end up on ~100mg testosterone IM weekly or 4-6mg estradiol daily

Lab	First Year	> First Year
Estrogen/Antiandrogen Hormone Therapy		
Estradiol, free/total Testosterone	Q3M, more often if E is high	Q6M if dose is stable
Lipids	~6M, *(PRN)*	Q12M *(PRN)*
LFTs	Q3M *(no recs)*	Q6-12M *(no recs)*
BUN/Cr/K (spironolactone)	Q3M and with med change	Q6M if on spironolactone, otherwise Q12M
Testosterone Hormone Therapy		
Estradiol, free/total Testosterone	Q3M, more often if T is high *(no recs for E)*	Q6M if dose is stable *(no recs for E)*
Lipids	~3-6M *(PRN)*	Q6-12M *(PRN)*
LFTs	Q3M *(no recs)*	Q6-12M *(no recs)*
Hgb/Hct	Q3M	Q6-12M

**Blood pressure, weight, and mood!

Italicized: UCSF guidelines
Feldman and Safer, Int J Trans, 2009

Don’t Forget Routine Primary Care

- STI screening and PreP
- Risk stratify for CVD
  - Lipids, diabetes screen, smoking, family hx
- Osteoporosis
  - Screen at 65 or
  - 50-64 yo if risk factors or s/p gonadectomy with > 5 years without hormones

Don’t Forget Routine Primary Care

Cancer screening based on anatomy (“Screen what you have”)

- Begin mammography in transgender women who are > 50 with at least 5-10 years of estrogen exposure (UCSF)
- Transgender men need mammograms if breast tissue is present
- Cervical cancer screening if cervix present, per cis-gender guidelines
- Shared decision making for prostate cancer screening
- Colon cancer screening guidelines unchanged

The Primary Care Package

Transgender Men	Transgender Women
CBC for polycythemia	BUN/Cr, K, orthostasis (spironolactone)
Cardiac risk: BP, lipids, a1c	Cardiac risk: BP, lipids, a1c
Soc: smoking, ETOH, HIV, STI	Soc: smoking, ETOH, HIV, STI
Mammogram	Excess VTE risk (consider ASA)
Cervical cancer screening	PSA/DRE
DEXA age 65 or earlier if risks	Mammogram vs. MRI for implant surveillance
Vit D	Vaginoplasty care
Screen for mood DO	DEXA age 65 or earlier if risks; Vit D
	Screen for mood DO

Big Picture

Trans and gender non-conforming patients face discrimination everywhere, including when seeking healthcare

Learning how to adequately care for these patients is rewarding and algorithmic! You can do this!

Goal is to risk stratify, prevent complications, and adequately treat gender dysphoria with shared decision making

Special Thanks

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THANK YOU!

Resources

World Professional Association for Transgender Health (WPATH)

https://www.wpath.org/

UCSF Guidelines for Primary and Gender-Affirming Care

https://transcare.ucsf.edu/guidelines

Fenway Health

https://fenwayhealth.org/care/medical/transgender-health/

Endocrine Society

https://www.endocrine.org/clinical-practice-guidelines/gender-dysphoria-gender-incongruence

Resources

National LGBT Health Education Center: https://fenwayhealth.org/the-fenway-institute/education/the-national-lgbt-health-education-center/

Compilation of National Trans Resources and Programs: https://www.glaad.org/transgender/resources

UPMC Concierge (for resources and UPMC Health Plan Assistance): 844-202-0126

Trans Buddy PGH (for trans-friendly chaperone to health care appointments): 412-944-4261

Resources

Hugh Lane Wellness Foundation: https://hughlane.org/youth-and-family-services/youth-affirm/

Persad Center (Community Center for LGBTQ Wellness): https://www.persadcenter.org/

QBurgh (queer news and community resource for Pittsburgh): https://qburgh.com/

Sisters Pittsburgh (Black and Trans Community Organization): https://www.sisterspgh.org/

Allies for Health and Well-Being (for patients with or at risk for HIV, Hepatitis and infection): https://www.alliespgh.org/

Project Silk (PGH Community for LGBT youth of color, drop in community center): https://chscorp.org/service-area/program/project-silk

PGH Equality Center (Education, Advocacy, Social Justice): https://pghequalitycenter.org/

Pittsburgh LGBTQIA+ Guide: http://www.transpridepgh.org/lgbtqia-guide.html

TransPridePGH Facebook Page: https://www.facebook.com/transpridepgh

Proud Haven (for LGBTQIa+ youth and adults experiencing homeless): https://www.proudhaven.org/

Key Clinical Resources

- Guidelines:
  - Endocrine Society Guidelines (2017)
  - UCSF Transgender Care and Treatment Guidelines (2016)
  - WPATH Standards of Care Version 7 (2012)
- Review Articles:
  - ACP In the Clinic: Care of the Transgender Patient (2019)
  - Caring for Transgender and Gender-Diverse Persons: What Clinicians Should Know. American Family Physician (2018)

Additional Slides

Lab Monitoring – Masculinizing Therapy, Alternative Recommendation

Lab	Baseline	3 months	6 months	9 months	12 months	Annual	PRN
Hemoglobin & Hematocrit (goal HCT < 50%)	X	X	X	X	X	X	
Total Testosterone (goal 400-700 ng/dL)		X	X	X	X		X
SHBG							X
Albumin							X
Estradiol							X

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Lab Monitoring – Feminizing Therapy, Alternative Recommendation

	Baseline	3 months	6 months	9 months	12 months	Annual	PRN
Serum Estradiol		X	X		X		X
Serum Testosterone	X	X	X		X		X
AST/ALT	X						X
BUN/Cre/K if taking spironolactone	X	X	X	X	X	X	X
SHBG							X
Albumin							X
Lipid Panel	X						

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