Care of Transgender and Gender Diverse Patients in Primary Care

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Disclosures

• No relationships or commercial interests to disclose.
• Some medications discussed are used for gender-affirming hormone therapy on an off-label basis.
Learning Objectives

1. Consider how transgender health is a fundamental component of primary care
2. Brief review of terminology related to gender identity
3. Recognize the holistic needs of transgender populations inclusive of preventative and gender-affirming medical care.
Our Pragmatic Hopes

That after this talk you will feel more comfortable:

• Greeting patients with inclusive language
• Discussing patient goals for gender affirmation
• Offering psychosocial support to your patients
• Providing routine preventive health care to transgender/gender diverse patients
• Helping with documentation for name/gender marker changes
• Prescribing gender-affirming hormones in primary care
Transgender Health is Primary Care

Wellness promotion
- Role of gender identity/gender affirmation in overall health
- Inclusive preventive screening

Psychosocial Context
- Address mental health, social supports
- Resources for legal/social transition

Chronic Health Management
- Gender-affirming medications
- Addressing concurrent health conditions

Inter-professional Teamwork
- Pharmacy – injection supplies
- Electronic medical record

Engagement with Specialists
- Endocrine, behavioral health, surgery, voice therapy, dermatology
- Medical records, legal services, social work
Sexual Orientation vs. Gender Identity

Sexual Orientation Identity
- Romantic & Sexual Attraction
- Sex/Gender of Sexual Partners

Sex Assigned at Birth
- Gender Identity
- Gender Expression
**Terminology - Gender**

**Gender identity** - one's innermost concept of self as male, female, a blend of both or neither – how individuals perceive themselves and what we call themselves.

**Gender expression** - external appearance of one's gender identity, usually expressed through behavior, clothing, haircut or voice. May be on a spectrum.

*********************************************************

**Cisgender** - gender identity is aligned with sex assigned at birth.

**Transgender** - umbrella term for people whose gender identity and/or expression is different from cultural expectations based on the sex they were assigned at birth.

**Nonbinary/gender non-conforming/gender diverse/genderqueer** – all terms that describe those who do not have a binary gender identity
How Many?

Americans' Self-Identification as LGBT
Which of the following do you consider yourself to be? You can select as many as apply: Straight or heterosexual; Lesbian; Gay; Bisexual; Transgender.

- % Identify as LGBT

<table>
<thead>
<tr>
<th>Year</th>
<th>% Identify as LGBT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>3.5</td>
</tr>
<tr>
<td>2013</td>
<td>3.6</td>
</tr>
<tr>
<td>2014</td>
<td>3.7</td>
</tr>
<tr>
<td>2015</td>
<td>3.9</td>
</tr>
<tr>
<td>2016</td>
<td>4.1</td>
</tr>
<tr>
<td>2017</td>
<td>4.5</td>
</tr>
<tr>
<td>2018</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>5.6</td>
</tr>
</tbody>
</table>

2012-2017 wording: Do you, personally, identify as lesbian, gay, bisexual or transgender?

GALLUP
## How Many?

**Americans’ Self-Identified Sexual Orientation**

Which of the following do you consider yourself to be? You can select as many as apply: Straight or heterosexual; Lesbian; Gay; Bisexual; Transgender.

<table>
<thead>
<tr>
<th></th>
<th>Among LGBT U.S. adults</th>
<th>Among all U.S. adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesbian</td>
<td>11.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Gay</td>
<td>24.5%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>54.6%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Transgender</td>
<td>11.3%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Other (e.g., queer, same-gender-loving)</td>
<td>3.3%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

Percentages total more than 100% because respondents may choose more than one category.

GALLUP, 2020
Health Inequities

- Higher prevalence of overall poor health
- 40% (vs 5%) serious psychological distress
- 40% (vs 4.6%) lifetime suicide attempt
- 50% bullying in school
- Less likely to have regular health insurance or regular health provider
- No difference in burden of chronic illness

Health Care Access and Behavioral Health

There is a protective effect on mental health status and substance use for trans women who utilize transition-related medical care:

- Utilization of hormones, breast augmentation, and genital surgery were all associated with lower odds of suicidal ideation, binge drinking, and non-injection drug use.
- A history of gender-affirming surgery was associated with lower odds of psychological distress, tobacco smoking, and suicidal ideation as compared with no history of gender-affirming surgery.

Wilson et al., 2015
Almazan & Keuroghlian, 2021
Creating a Welcoming Environment

- Display symbols welcoming LGBTQ community
- Include brochures addressing relevant health concerns
- Update intake forms/EMRs
- Staff training re: gender neutral language
- ASK
  - Correct name
  - Pronouns
  - Language for body (anatomy)
- Recognize that much care being sought is not specifically related to gender

GLMA. Guidelines for Caring for Lesbian, Gay, Bisexual, Transgender Patients.
More Tips for Inclusive Language

Instead of “Nice to meet you, sir”
- Try “Nice to meet you”

Instead of “I see here your name is XXX”
- Try “Hi, I’m XX, how should I address you during our visit today”

Instead of “we still need to examine your female organs”
- Try “Can we talk about why a pap test is indicated for you?”

Instead of “Women and Transgender Women”
- Try Cisgender Women and Transgender Women or just Women
- Avoid describing cisgender individuals as “normal” or “regular”
Gender Transition or Affirmation Process

- Psychological (sense of self)
- Medical (hormone therapy)
- Social (outward expression)
- Surgical
- Legal (identity documents)
Changing Identity Documents

• Rules vary widely between states
  • Physician/provider letter often needed for gender marker changes
• National Center for Transgender Equality provides state-by-state guidance
  • In MA – for drivers license/state ID
  • Federally – birth certificate, Soc Security card
  • “appropriate clinical treatment for gender transition”
• Significant delays with COVID-19
• Birth certificate changes require notary
• Changes are linked with better mental health
Taking a Gender History

Identification
- Name
- Pronouns
- Honorifics

Gender Story
- History of gender identity
- Self-identification
- No “right” story

Medical Goals
- Hormones
- Mental health
- Surgery
- Fertility
- Hair removal

Health Risk Behaviors
- Substance use
- Sexual history
- Trauma/Safety

Social/Legal
- Social supports
- Safety
- Presenting in public
- Legal documents
Providing Psychosocial Support

• Earning patient trust

• Assessing social determinants of health (good primary care) and connecting to resources
  • Working with social work, case management, and patient navigators

• Discuss mental health and well-being
  • Mental health services are not required to access gender-affirming medical interventions at Boston Medical Center

• Connect to services when requested or required
  • Specific requirement for Gender-affirming surgical interventions
  • Many interested in a variety of other behavioral health services
Gender Affirming Hormones: Before you Start

Models of Care
- “Gatekeeping” vs. Informed Consent

Diagnosis
- Gender Dysphoria
- Gender Incongruence

Individualize Treatment Goals
- Medications, surgery, hair removal, behavioral health, other

Fertility Preservation
- Discuss before starting hormones
- Be aware of insurance issues
Hormone Therapy - Adults

Goals of therapy:
- Reduce endogenous sex hormone levels
- Replace with exogenous sex hormones that will support the expressed gender identity

Transgender males
- Testosterone
- Goals: testosterone 400-800 ng/dL, estradiol <50 pg/mL and cessation of menses

Transgender females
- Estrogen replacement
- Androgen blockers
- Goal estradiol level 100-200 pg/mL and testosterone <50 ng/dL

Nonbinary/Gender Diverse Individuals
# Masculinizing Regimens

<table>
<thead>
<tr>
<th>Androgen</th>
<th>Initial - low dose$^b$</th>
<th>Initial - typical</th>
<th>Maximum - typical$^c$</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testosterone Cypionate$^a$</td>
<td>20 mg/week IM/SQ</td>
<td>50mg/week IM/SQ</td>
<td>100mg/week IM/SQ</td>
<td>For q 2 wk dosing, double each dose</td>
</tr>
<tr>
<td>Testosterone Enthanate$^a$</td>
<td>20mg/week IM/SQ</td>
<td>50mg/week IM/SQ</td>
<td>100mg/week IM/SQ</td>
<td>&quot;</td>
</tr>
<tr>
<td>Testosterone topical gel 1%</td>
<td>12.5-25 mg Q AM</td>
<td>50mg Q AM</td>
<td>100mg Q AM</td>
<td>May come in pump or packet form</td>
</tr>
<tr>
<td>Testosterone topical gel 1.62%</td>
<td>20.25mg Q AM</td>
<td>40.5 - 60.75mg Q AM</td>
<td>103.25mg Q AM</td>
<td>&quot;</td>
</tr>
<tr>
<td>Testosterone patch</td>
<td>1-2mg Q PM</td>
<td>4mg Q PM</td>
<td>8mg Q PM</td>
<td>Patches come in 2mg and 4mg size. For lower doses, may cut patch</td>
</tr>
</tbody>
</table>

https://transcare.ucsf.edu/guidelines
## Masculinizing Effects

### Table 12. Masculinizing Effects in Transgender Males

<table>
<thead>
<tr>
<th>Effect</th>
<th>Onset</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin oiliness/acne</td>
<td>1–6 mo</td>
<td>1–2 y</td>
</tr>
<tr>
<td>Facial/body hair growth</td>
<td>6–12 mo</td>
<td>4–5 y</td>
</tr>
<tr>
<td>Scalp hair loss</td>
<td>6–12 mo</td>
<td>—</td>
</tr>
<tr>
<td>Increased muscle mass/strength</td>
<td>6–12 mo</td>
<td>2–5 y</td>
</tr>
<tr>
<td>Fat redistribution</td>
<td>1–6 mo</td>
<td>2–5 y</td>
</tr>
<tr>
<td>Cessation of menses</td>
<td>1–6 mo</td>
<td>—</td>
</tr>
<tr>
<td>Clitoral enlargement</td>
<td>1–6 mo</td>
<td>1–2 y</td>
</tr>
<tr>
<td>Vaginal atrophy</td>
<td>1–6 mo</td>
<td>1–2 y</td>
</tr>
<tr>
<td>Deepening of voice</td>
<td>6–12 mo</td>
<td>1–2 y</td>
</tr>
</tbody>
</table>

Estimates represent clinical observations: Toorians et al. (149), Assche-man et al. (156), Gooren et al. (157), Wierckx et al. (158).

Hormone Therapy – Goal Serum Levels

Goals of therapy:

- Reduce endogenous sex hormone levels
- Replace with exogenous sex hormones that will support the expressed gender identity

Transgender males

- Testosterone
- Goals: testosterone 400-800 ng/dL, estradiol <50 pg/mL and cessation of menses

Transgender females

- Estrogen replacement
- Androgen blockers
- Goal estradiol level 100-200 pg/mL and testosterone <50 ng/dL

Nonbinary/Gender Diverse Individuals
Masculinizing Hormones – Challenges

- Persistent menses
- Erythrocytosis
- Lipid changes (↓ HDL, ↑ TG)
- Liver dysfunction (transaminases > 3x ULN)
- Acne
- Worsening of hypertension
- Mood and Energy changes
- Male Pattern Baldness

Contraindications:
- Pregnancy
- Hormone sensitive cancer
- Frank polycytemia (Hct >55%)
# Feminizing Regimens

<table>
<thead>
<tr>
<th>Hormone</th>
<th>Initial</th>
<th>Initial</th>
<th>Maximum</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estrogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estradiol oral/sublingual</td>
<td>1mg/day</td>
<td>2-4mg/day</td>
<td>8mg/day</td>
<td>if &gt;2mg recommend divided bid dosing</td>
</tr>
<tr>
<td>Estradiol transdermal</td>
<td>50mcg</td>
<td>100mcg</td>
<td>100-400mcg</td>
<td>Max single patch dose available is 100mcg. Frequency of change is brand/product dependent. More than 2 patches at a time may be cumbersome for patients</td>
</tr>
<tr>
<td>Estradiol valerate IM³</td>
<td>&lt;20mg IM q 2 wk</td>
<td>20mg IM q 2 wk</td>
<td>40mg IM q 2 wk</td>
<td>May divide dose into weekly injections for cyclical symptoms</td>
</tr>
<tr>
<td>Estradiol cypionate IM</td>
<td>&lt;2mg q 2 wk</td>
<td>2mg IM q 2 wk</td>
<td>5mg IM q 2 wk</td>
<td>May divide dose into weekly injections for cyclical symptoms</td>
</tr>
<tr>
<td>Androgen blocker</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spironolactone</td>
<td>25mg qd</td>
<td>50mg bid</td>
<td>200mg bid</td>
<td></td>
</tr>
</tbody>
</table>

[https://transcare.ucsf.edu/guidelines](https://transcare.ucsf.edu/guidelines)
# Feminizing Effects

## Table 13. Feminizing Effects in Transgender Females

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

<sup>a</sup> Estimates represent clinical observations: Toorians et al. (149), Asscheman et al. (156), Gooren et al. (157).

Hormone Therapy – Goal Serum Levels

Goals of therapy:
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- Androgen blockers
- Goal estradiol level 100-200 pg/mL and testosterone <50 ng/dL

Nonbinary/Gender Diverse Individuals
Challenges with Feminizing Hormones

Side Effects

• Estrogen
  – Headache
  – Mood swings
  – Weight Gain
• Spironolactone
  – Polyuria
  – Orthostasis

Complications

• Venous Thromboembolism
• Prolactinoma
• +/- cardiovascular effects
• Changes in Libido
• Migraines
• Mental Health
## Gender Affirming Hormones & CV Risk

<table>
<thead>
<tr>
<th>Study</th>
<th>Outcomes</th>
<th>Findings</th>
<th>F/U yrs *</th>
<th>Limitations: data not included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nota</td>
<td>VTE</td>
<td>+++</td>
<td>NS</td>
<td>tobacco</td>
</tr>
<tr>
<td>2517 TW</td>
<td>MI</td>
<td>NS</td>
<td>+++ 9±9</td>
<td>comorbid conditions</td>
</tr>
<tr>
<td>1358 TM</td>
<td>Stroke</td>
<td>+++</td>
<td>NS 8±9</td>
<td>aspirin, statin</td>
</tr>
<tr>
<td>Getahun</td>
<td>VTE</td>
<td>+++</td>
<td>NS</td>
<td>comorbid conditions</td>
</tr>
<tr>
<td>2842 TW</td>
<td>MI</td>
<td>NS</td>
<td>NS 4±3</td>
<td>aspirin, statin</td>
</tr>
<tr>
<td>853 TM</td>
<td>Stroke</td>
<td>+++</td>
<td>NS 4±3</td>
<td>tobacco</td>
</tr>
<tr>
<td>Asscheman</td>
<td>VTE</td>
<td>+++</td>
<td>NS</td>
<td>comorbid conditions</td>
</tr>
<tr>
<td>966 TW</td>
<td>MI</td>
<td>NS</td>
<td>NS 19±8</td>
<td>aspirin, statin</td>
</tr>
<tr>
<td>365 TM</td>
<td>Stroke</td>
<td>NS</td>
<td>NS 19±6</td>
<td>tobacco</td>
</tr>
</tbody>
</table>

TM = Transgender men; TW = Transgender women; F/U = mean follow up; VTE = venothromboembolism; MI = myocardial infarction; NS = no significant finding; (+++) = significant increased risk of outcome, *mean ± SD yr follow-up

Non-binary and Gender Diverse Individuals

- Adjust doses of spironolactone and/or estradiol to maintain testosterone levels in a range between standard male and female levels
- Use of anti-androgens alone
  - BUT – WATCH FOR BONE LOSS!
- Limited courses of hormone therapy
- Surgical affirmation without hormone treatment
Surgical Options

Trans Feminizing
- Breast augmentation
- Genital Surgeries
  - Vaginoplasty with orchiectomy
  - Genital remodeling
- Vocal Cord Procedures
- Facial feminization
  - Forehead and brow bone reshaping
  - Jaw and chin contouring
  - Rhinoplasty
  - Hairline changes
  - Tracheal shave

Trans Masculinizing
- Chest reconstruction
- Hysterectomy +/- BSO
- Metoidioplasty (creating phallus from clitoral tissue)
- Phalloplasty (creating phallus from other part of the body, such as from a radial forearm flap)
Preventive Care

Cancer Screening
Screen all organs that are present in line with national guidelines

Substance Use and Mental Health Screening
Consider screening for depression/anxiety
Assessment for unhealthy substance use

Bone Health
Consider Hx of blockers, anti-androgens without estrogen, +/- gonads
Osteoporosis: consider screening at baseline if risk factors for osteoporotic fracture present

Sexual Health
Thorough sexual history taking
Comprehensive STI screening
Contraceptive Needs

Vaccinations

Cardiovascular Risk Assessment/Mitigation
Challenges include sex-specific calculators
• UCSF Guidelines for Primary and Gender-Affirming Care
  https://transcare.ucsf.edu/guidelines

• Transgender Health ECHO
  https://www.lgbtqiahealtheducation.org/project-echo/trans-echo/

• Project Health TransLine
  http://project-health.org/transline/
STRENGTH TOGETHER.

THE HEALTH OF ALL OF US DEPENDS ON EACH AND EVERY ONE OF US

Explore the specialized transgender care that Boston Medical Center has to offer at the Center for Transgender Medicine & Surgery

BMC.org/CTMS
617.638.1833
Questions?