Gyn Care for the Transgender Patient

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What the Evidence Tells Us
San Francisco, CA
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Disclosures

I have consulted for Sage Therapeutics about post-partum depression treatment and care pathways.

Today's Objectives

- Understand the difference between sex, gender, sexual orientation, gender identity, and gender expression.
- Understand some of the reproductive health needs for transgender men & women.
- Build a framework for providing sensitive and competent gynecological care for transgender patients.

Today's Plan

- Terminology
- Why is this important?
- What do I need to know?
- Resources & Homework

Resources
http://tinyurl.com/lwn6au5
Terminology

Gender vs. Sex

But what if the family gets Laverne instead of Jessie?

Gender vs. Sex

Sex:
The biological and physiological characteristics that define males and females.

Gender:
The socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for men and women.

“Male” and “female” are sex categories, while “man” and “woman” are gender categories.
### Gender vs. Sex

**The Gender Unicorn**

- **Gender Identity**
  - Female
  - Male
  - Other
- **Gender Expression/Presentation**
  - Feminine
  - Masculine
  - Androgynous
  - Other
- **Sex Assigned at Birth**
  - Female
  - Male
  - Other
- **Sexually Attracted To**
  - Women
  - Men
  - Other/Gender
- **Romantically/Emotionally Attracted To**
  - Women
  - Men
  - Other/Gender

*Sex is what’s in your genes/jeans.*
*Gender identity is what’s between your ears.*

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**The Gender Unicorn**

- **Gender Identity**
  - Female
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  - Men
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- **Romantically/Emotionally Attracted To**
  - Women
  - Men
  - Other/Gender

*Gender identity is who you go to bed as.*
*Sexual orientation is who you go to bed with.*

### The Alphabet Soup

- Lesbian
- Gay
- Bisexual
- Transgender
- Queer
- ... and others

http://transhealth.ucsf.edu/trans?page=guidelines-terminology

### Transgender: an Umbrella

Transgender (Trans*) is an umbrella term...

For persons whose gender identity, gender expression, or behavior does not conform...to that typically associated with the sex to which they were assigned at birth.

Use people’s affirmed gender

![cis (Z) and trans (E)]
### Transgender: an Umbrella

Transgender (Trans*) is an umbrella term…

Use people’s affirmed gender

- Transgender man/trans man (FTM^): a man who was assigned female sex at birth.
- Transgender woman/trans woman (MTF^): a woman who was assigned male sex at birth.
- Genderqueer/Gender non-binary: someone who identifies outside of the gender binary of man and woman may have either sex assigned at birth.

### Terminology

- **Transition**: The process of “gender transition” or “gender affirmation” may include social, medical, and/or surgical processes.
- **Putting it together! (Sexual orientation and GI)**
  - Lesbian (Transgender/Cisgender) Woman
  - Straight (Transgender/Cisgender) Man
  - Bisexual (Cisgender/Transgender) Woman

### Terminology: Principles for Use

- No single definition
- Vary geographically, individually, & over time!
- Avoid seeking or attaching labels to people.
- Follow patient lead in language with name, pronouns, body organs

**ASK patients & use THEIR language!**

### Quiz Time

The following are features that correspond with a person’s sex assigned at birth:

- A. Clothing, hair, make-up
- B. Reproductive organs
- C. Vocal intonation
- D. Desire to carry a child
- E. “Opposite” gender attraction
- F. Pronouns
I’m busy, what does this have to do with me?

LGBT ADULT Population Estimates

Massachusetts BRFSS
0.5% transgender

But...we don’t really know!

Patients Want LGBT-Specific Care

Providers Don’t Ask About SOGI
Don’t be that doctor.

Southern Comfort: A documentary about the life of Robert Eads a trans man who died of ovarian cancer.

Some MEN need OBGYN health care!

Trans MEN’s repro health care needs

- Obstetrics: they get pregnant
- Family Planning: undesired pregnancies
- Gynecology: they still have vaginas, uteri etc.
- REI: PCOS, needing assisted reproduction
- Urogynecology: genital reconstruction, general urogyn
- RID: STIs, HIV
- Oncology: sadly cancer too…

Trans women need repro health care too!

- Obstetrics: uterus transplants are on the horizon
- Family Planning: semen analysis, cryopreservation
- Gynecology: they have neo-vaginas, and need support and mammos
- REI: back to family planning
- Urogynecology: often involved in reconstruction
- RID: high rates of STIs, HIV
- Oncology: they get cancer too…
National Committee Recognize This...

Health Care for Transgender Individuals

- Transgender identity is a spectrum
- Barriers to care are significant
- Appropriate referrals & safe environment are key

Okay, so what do I need to know?

“Transition” has 3 components

1. Social
2. Medical
3. Surgical

Quiz Time

What is the population prevalence of transgender people in the U.S.?

A. 1 in 100
B. 1 in 200 - 300
C. 1 in 500 – 1,000
D. 1 in 2,000 – 3,000
E. 1 in 10,000 – 30,000
F. None of the above
Key Pearls for Caring for Trans* People

Regardless of stage of transition:
• Not one “transition” or “complete”
• Use correct pronouns
• Learn about transition desires & offer support
• If they have it, screen it
• Whether they do or don’t want a family – help
• Sxs may / may not be 2/2 transition

CA Legislature - is ahead of the curve

“Gender is no barrier to applying for Medi-Cal Pregnancy Services”

The bill would authorize the change of gender on a new birth certificate to be female, male, or nonbinary.
62% have had hormone therapy, increases with age
23% hope to in the future
Transgender women (80%) > Transgender men (69%)

Testosterone Outcomes (for reference)

- Deepened Voice
- Amenorrhea
- Hirsuitism (body/facial)
- Clitoral Growth (Avg 4-5cm)
- Laryngeal prominence
- Increased Libido
- Breast Atrophy
- Redistribution of fat
- Testosterone to male levels
- Increased muscle mass
- Increased HCT (hct>50%)
- Acne
- Weight increase >10%
- Elevated LFTs (upto 15%)
- Sleep Apnea
- Aggression and hypersexuality
- Poor lipid profile
- Decreased insulin sensitivity
- Increased IGF
- Decreased BMD after gonadectomy

^ = statistical changes, not always clinically significant
Blue = permanent changes
Green = reversible changes
Red = high risk concerning changes
Yellow = negative effects

Moore et al. J. Clinical Endocrin. 2003
Hembree et al. J Clinical Endo Metab, 2017

Gender Affirming Hormone Administration

Great references:
http://transhealth.ucsf.edu/trans?page=guidelines-home
Hembree et al. Endocrine Treatment of Gender Dysphoric Gender-Incongruent Persons: An Endocrine Society* Clinical Practice Guideline. 2017

Trans men:
Testosterone: IM, transdermal patch or gel or cream, or subq implant
Most common regimen: Depo-methyltestosterone 50-100mg IM qwk
• Pts learn to self-inject, patch & gel works more slowly
• Initiation / Surveillance: lipids, A1c/fasting glucose, total testosterone, SHBG, albumin, HGB/HCT (see guidelines for more details)
An active testosterone-sensitive cancer is a contraindication

Trans women:
Estradiol +/- progestin +/- androgen blocker: oral, transdermal, IM
Most common regimen: Most adults 2-4mg QD PO (lower start and slower titration can be done) +/- MDPA 5-10mg PO QD, +/- Spironolactone 200mg PO BID
• Initiation / Surveillance: lipids, A1c/fasting glucose, estradiol, total testosterone, SHBG, albumin, prolactin (see guidelines for more details)
An active estrogen/progestin-sensitive cancer is a contraindication

Testosterone Outcomes (for reference)

<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>4-5 y</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>1-2 y</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: Tocnians et al. (149), Asscheman et al. (156), Gooren et al. (157), Wierckx et al. (158).

*Prevention and treatment as recommended for biological men.

Menorrhagia requires diagnosis and treatment by a gynecologist.
Monitoring Trans Men (for reference)

Table 14. Monitoring of Transgender Persons on Gender-Affirming Hormone Therapy: Transgender Male

1. Evaluate patient every 3 mo in the first year and then one to two times per year to monitor for appropriate signs of feminization and development of adverse reactions.
2. Measure serum testosterone every 3 mo until levels are in the normal physiologic male range. 
   a. For testosterone enanthate, the testosterone level should be measured midway between injections. The target level is 400-750 ng/dL, or 160-300 nmol/L. Alternatively, measure peak and trough levels to ensure levels remain in the normal range.
   b. For parenteral testosterone undecanoate, testosterone should be measured just before the following injection. If the level is 125 ng/dL, adjust dosing interval.
3. For transdermal testosterone, the testosterone level can be measured no sooner than after 1 wk of daily application (at least 2 h after application).
4. Measure hematocrit or hemoglobin at baseline and every 3 mo for the first year and then one to two times a year. Monitor weight, blood pressure, and lipids at regular intervals.
5. Scoring for osteoporosis should be conducted in those who stop testosterone treatment, are not compliant with hormone therapy, or who develop risks for bone loss.
6. Osteodensity can be assessed after completion of hormone transition.
7. Conduct full peripheral annual breast examinations if mastectomy performed. If mastectomy is not performed, then consider mammograms as recommended by the American Cancer Society.

^ = statistical changes, not always clinically significant
Green = reversible changes
Red = high risk
Yellow = deleterious

Estrogen Outcomes (for reference)

Table 12. 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>Variable</td>
<td>Variable</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</td>
</tr>
<tr>
<td>Sculp hair</td>
<td>Variable</td>
<td>Variable</td>
</tr>
<tr>
<td>Voice changes</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

Estimates represent clinical observations; Tsoontians et al. (149), Asscheeman et al. (156), Gooren et al. (157).

*Complete removal of male sexual hair requires electrolysis or laser treatment or both.
*Familial scalp hair loss may occur if estrogens are stopped.
*Treatment by speech pathologists for voice training is most effective.

Monitoring Trans Women (for reference)

Table 15. Monitoring of Transgender Persons on Gender-Affirming Hormone Therapy: Transgender Female

1. Evaluate patient every 3 mo in the first year and then one to two times per year to monitor for appropriate signs of feminization and development of adverse reactions.
2. Measure serum testosterone and estradiol every 3 mo.
3. Serum estradiol should not exceed the peak physiologic range of 100-200 pg/ml.
4. For individuals with idiopathic gynecomastia, should be monitored every 3 mo in the first year and annually thereafter.
5. Routine cancer screening is recommended, as in nontransgender individuals (all issues present).

This table presents strong recommendations and does not include lower-level recommendations.

GREEN = statistical changes, not always clinically significant
RED = high risk
YELLOW = deleterious

Venous thromboembolism
Cholelithiasis
Hyperprolactinemia
Elevated liver enzymes
Depression
Decrease in HgB
Prolactinoma (case reports)
?Breast cancer (case reports)
Prostate carcinoma after orchiectomy (case report)
Decreased insulin sensitivity
Decreased IGFI

Usually GYN/Women’s health if/after surgery
So...what about health implications?

Are hormones safe?

Goal: What are the effects of cross-sex hormones in transsexual men and women?

n = 100, average 10 years on hormones

FTM (exogenous testosterone): appears safe - no osteoporosis, CV events, hormone-related CA

MTF (exogenous estrogen): 25% osteoporosis at lumbar spine, 6% thromboembolic event, 6% CV event after 11 years, no hormone-related tumors


Are hormones and SRS effective?

Goal: Assess prognosis of people with GID (now GD) receiving hormones & SRS in terms of QoL?

Systematic Review & Meta-analysis:
28 observational studies, n=1,833 (1,093 MTF)
- 80% improvement in QoL
- 72% improvement in sexual function
- 78% improvement in psych sxs


What about GYN Cancer?

Goal: Summarize published case reports (at that time).

The group found 6 cases:
Ovarian Cancer: 2
Cervical Cancer: 2
Endometrial Cancer: 1
Vaginal Cancer: 1

“Where there’s no smoke, there’s no fire.”

Increased Rates of Abnormal Pap Smear

Goal: Investigate anecdotal high rates of inadequate paps among FTM.

Clinical chart review, case series. 233 FTM compared with 3625 cisgender female.

• FTM patients more likely to have inadequate paps
10.8% vs. 1.3% total tests.
• Longer latency of follow-up
• Years of testosterone use affected the model.

Great resource on Gyn Care for Trans Men

Cervical Cancer Screening for Patients on the Female-to-Male Spectrum: A Narrative Review and Guide for Clinicians

What about Breast Cancer?

Goal: Examine the occurrence of breast cancer in Dutch MTF and FTM between 1975-2011.

Patients 18-80, hormones 5-30 years.
N= 2,307 MTF (52,000 p-y), 795 FTM (16,000 p-y)

• Among MTF, 1 confirmed, +1?: 4.1/100,000 p-y
• Among FTM, 1 case: 5.9/100,000 p-y

Hormones not associated with increased CA
How to refer physiologically to cases?

Great resource on Gyn Care for Trans Men

Case: Fibroids

Consult: 30 yo F with fibroids, wants to start hormones for her (ugh!) transition. Can we start testosterone (T)?

ID: 30 yo G0 transgender man w/ sxs fibroids.
- Socially transitioned x 10 years, uses male pronouns outside of VA/Air Force.
- Now that out of active duty, wants to go on T
- Uterus: 20x13x10cm, symptomatic
- Endocrine: Waiting for GYN about on T with fibroids

My response: No data, but go ahead, might help fibroids, but what about his fertility?
The Next Frontier in Fertility Treatment.

“Over the past 15 years, activists have fought to compel insurers to cover transgender-related health care.... What’s been left out of the spotlight: having babies.”

Beyond surviving...thriving.

My Brother’s Pregnancy and the Making of a New American Family.
September 12, 2016

“Pregnancies like Evan’s – will stretch our cultural perceptions of gender norms even further.... But what is you were born into a female body, know you are a man and still want to participate in the traditionally exclusive rite of womanhood?
What kind of man are you then?

What about Fertility?

What about Family Planning?

Goal: Provide info on reproductive wishes of transsexual men after SRS (FTM)

Single-center, cross-sectional, 50 FTM after T & SRS
• 64% in a relationship
• 22% had children
• N = 8 female partner, donor sperm
• N = 3 birth before T & SRS
• 54% desired to have children
• 37.5% would have frozen eggs

Beyond surviving...thriving.

What about hormones and pregnancy?

Goal: Understand FTM who had been pregnant and delivered after transition.

Online, cross-sectional, international
41 FTM (social and medical transition)
• 61% used testosterone prior to pregnancy
• 72% resumption menses within 6 mos
• 84% used their own oocytes
• 24% unplanned pregnancy
What about contraception/conception?

**Conclusion:** Transgender men have different gender partners & family building options & needs

**TABLE 1. Sexual Orientation of Trans Men in Ontario, Canada (n = 227): Identity and Behavior**

<table>
<thead>
<tr>
<th>Sexual orientation</th>
<th>%</th>
<th>90% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisexual/Pansexual</td>
<td>24.0</td>
<td>[16.4, 33.3]</td>
</tr>
<tr>
<td>Gay</td>
<td>10.0</td>
<td>[4.1, 17.7]</td>
</tr>
<tr>
<td>Lesbian</td>
<td>4.1</td>
<td>[1.3, 7.8]</td>
</tr>
<tr>
<td>Asexual</td>
<td>14.9</td>
<td>[8.8, 21.4]</td>
</tr>
<tr>
<td>Queer</td>
<td>48.2</td>
<td>[34.7, 61.7]</td>
</tr>
<tr>
<td>Straight/Heterosexual</td>
<td>34.3</td>
<td>[24.1, 47.1]</td>
</tr>
<tr>
<td>Two-spirit</td>
<td>3.0</td>
<td>[1.1, 5.7]</td>
</tr>
<tr>
<td>Not sure/Questioning</td>
<td>11.0</td>
<td>[5.0, 20.1]</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td>[0.0, 11.0]</td>
</tr>
<tr>
<td>Past-year partners</td>
<td>21.3</td>
<td>[12.8, 31.0]</td>
</tr>
<tr>
<td>Trans men</td>
<td>10.2</td>
<td>[4.7, 18.1]</td>
</tr>
<tr>
<td>Cis men</td>
<td>21.3</td>
<td>[12.8, 31.0]</td>
</tr>
<tr>
<td>Trans woman</td>
<td>6.8</td>
<td>[1.6, 13.4]</td>
</tr>
<tr>
<td>Cis woman</td>
<td>43.6</td>
<td>[32.0, 55.4]</td>
</tr>
<tr>
<td>Genderqueer persons</td>
<td>13.7</td>
<td>[6.4, 21.0]</td>
</tr>
</tbody>
</table>

Note: CI = confidence intervals; cis = cisgender (nontrans).

28%+

Quiz Time

**Who are transgender men partnering with sexually?**

A. Cisgender men  
B. Cisgender women  
C. Transgender men  
D. Transgender women  
E. Genderqueer people  
F. All of the above

So...what about surgery?

Study goal: Understand contraceptive use among transgender men “at risk” for pregnancy.

- 26 transgender men studied at San Francisco Clinic
  - 50% using testosterone (13/26)
  - Among those on T, 69% amenorrheic (9/13)

- 50% “at risk” for pregnancy (13/26) – have uterus + sex with cisgender man or transgender woman
  - 85% wanted to avoid pregnancy
  - 42% no contraceptive method (11/26)

**Cipres et al. Contraceptive use and pregnancy intentions among transgender men presenting to a clinic for sex workers and their families in San Francisco. Contraception, 2016**
Gender Affirming Surgeries

Previously called: sex re-assignment surgery (SRS)
- More than 26 different procedures

**For Trans Men:**
- Hyst +/- BSO
- Chest Reconstruction
- Metoidioplasty
- Phalloplasty
- Scrotoplasty
- Urethroplasty
- Vaginectomy (+/- colpocleisis)

**For Trans Women:**
- Orchiectomy
- Penectomy
- Breast augmentation
- Vaginoplasty
- Tracheal shave
- Facial reconstruction

Surgical Transition – 2011 NTDS

Trans Men and surgeries:
- Chest "Top" Surgery
- Hysterectomy
- Metoidioplasty/Creation of Testes
- Creation of Penis

Trans Women and surgeries:
- Breast Augmentation
- Orchiectomy
- Vaginoplasty

Note: among all gender - 93% who have had surgeries also received hormones

On the left: Metoidioplasty Or “metas” (+scrotoplasty)
On the right: Phalloplasty Or “phallos”
**Signaling Approachability**

How can you signal to LGBTQ people that you are a safe person with whom they can disclose and or discuss sexual orientation, gender identity?

Consider in your practice:
- What happens when patients come in the door?
- What happens behind closed doors?
- What happens between the doors?
- What happens to open doors?

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**Making Your Clinic LGBTQ Friendly**

1. Board and Senior Management are Actively Engaged
2. Policies Reflect the Needs of LGBTQ People
3. All Staff Receive Training on Culturally Affirming LGBT Care
4. Processes & Forms Reflect the Diversity of LGBT People & their Relationships
5. Data is Collected on Sexual Orientation & Gender Identity
6. All Patients Receive Routine Sexual Health Histories
7. Clinical Care and Services Incorporate LGBT Health Care Needs
8. The Physical Environment Welcomes and Includes LGBT People
9. LGBT Staff are Recruited and Retained
10. Outreach Efforts Engage LGBT People in Your Community

See the webinar from The Fenway Institute:

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**Get Involved Change the Landscape**

- National, online, longitudinal cohort study
- Web Based Platform
- Designed for and by LGBTQ people
- State-of-the-art participant management system
- 8600+ participants since May 2, 2017

See www.pridestudy.org

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Vaginoplasty, (a) immediately pre-op, (b) post-op & (c) 10w
Conclusions

- Transgender people and their reproductive health needs are diverse, but not insurmountable.
- Understanding the difference between sex, gender, and gender transition are critical to good care.
- There are reproductive health implications to gender transition, but more data is needed.
- You know the medicine, simple changes to care for transgender people help!

Thank You!

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Resources
http://tinyurl.com/lwn6au5

Check us out at www.pridestudy.org!