Transgender Health: What Physicians Need to Know

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Who am I and how did I get here?

- MSP from 1984–1993
  - PhD in Anthropology
- Family Practice Residency
  - Lutheran General Hospital
  - 1993–1996
- Married author Doug Hulick, 2 children
  - Evan and Cameron

- Associate Professor, Family Medicine, U of MN
- Residency faculty, 12 yrs.
  - Initial focus HIV prevention, training residents sexual health
  - Collaboration with the Program in Human Sexuality
Clinical Areas
- Abuse Recovery
- Compulsive Sexual Behavior
- HIV Counseling
- Relationship and Sex Therapy
- Transgender Health Services

Research
- Sexual Health Model, sexual dysfunction
- HIV Prevention
- Transgender Health
- CSB,

Education
- Elders Chair in Sexual Health Education
- Medical Students
- Family Medicine Residents

Nation's first endowed Chair in Sexual Health (2007)
www.sexualhealth.umn.edu/
Training in Transgender Medicine

- Physicians receive little to no training in TG health
  - 2011 study of 176 schools (US and Canada) reported median of 5 hours LGBT–related content; none in TG health specifically. (Obedin-Maliver, Juno, et al. 2011.)
  - In residency, if addressed at all, TG concerns share time with contraception, sexuality and aging, sexual dysfunction, LGB health
  - Clinics known to serve a LGB population not necessarily knowledgeable or welcoming to trans patients
  - Many trans patients report having to educate their health care providers about TG health issues (NTDS, 2010)

- Doctors who provide TG hormone therapy undergo no specific training or certification
  -- WPATH has started a training program

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Turn and Face the Changes

- TG health fast moving issue in society, policy and medicine
- You will treat a trans person at some point
- Trans persons deserve appropriate, compassionate, high quality health care
- Insurance will be covering it:
  - VA, Health and Human Services (Medicare) are in process
- AAMC with recommended medical education competencies in care for TG persons
- It is not rocket science—It is just good health care. You can do this.

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Who is “Transgender”?

- People whose *experienced* gender does not conform to their natally assigned sex, irrespective of their physical status or sexual orientation
  - Can be gay, straight, or bisexual

- Gender is not a binary:
  - May identify as “male”, “female” or somewhere in between
Transwomen (TW)
— MtF, Male to Female, Transfeminine
Transmen (TM)
—FtM, Female to Male, Transmasculine
Gender Queer, Gender Fluid

Now, which gender am I again?

Hey, I just met you and this is crazy but I'm genderqueer so don't call me lady.
Prevalence: transgender identity

- Netherlands, 1996: 1:11,900 for TW, 1:30,400 for TM
  - limited completion genital surgery
- Recent studies with broader definitions and improved methodologies suggest 0.2–0.5% of the population.
  - prevalence of transfeminine identity (regardless surgery or hormone status) from 1:1000 to 1:2000
Medically Underserved Population

- Transgender persons un/underinsured
- Insurance variably covers gender-related mental health services and hormone therapy
  - Medicare recently allowed coverage of gender related surgeries for medical necessity

- Discrimination and Stigma in health care setting
- Discomfort with body/gender incongruence → Avoidance and underutilization of care + larger minority stress (Meyer, 2003; Hendricks, Testa, 2012)

DISPARITIES
Lack of Insurance

- 2010 NTDS study: Less likely to have health insurance, more likely to be covered by public/state programs
  - 19% lacked any health insurance vs. 15% general population
  - 48%–50% postponed necessary medical care due to inability to afford (preventive or acute care)

- Gender specific: Insurance variably covers trans specific care (hormones, counseling, surgeries)
  - Feminizing surgeries: $7000–20,000
  - Masculinizing surgeries: Depending on procedures—up to $70,000 for phalloplasty
Trans persons experience discrimination in health care
- NTDS 2010: 19% refused any treatment, 28% reported verbal harassment due to TG status
  - Appears more frequent if patient discloses/ perceived as TG

Discrimination and stigma lead people to avoid or underutilize health care
- Based on personal experiences, those of peers or described in media
- May lead patients to avoid disclosing TG status
- Multiple situations in the course of clinic visit
  - Billing, clinic staff, forms, bathrooms
Providing Respectful Care

- Names and pronouns
  - Address patients by desired name, pronouns
    - ASK: ”How would you like to be addressed?” Preferred pronouns?
- Trans-inclusive paperwork, forms,
  - EHR: legal vs. preferred names, templates for meaningful use
    - patient with breasts AND prostate?
  - Collecting gender demographics correctly (2-step technique)
- Sensitive exams: do only what is needed, when needed and when the patient is ready
  - Breast, pelvic, rectal, genital
- Confidentiality, educated staff

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To bring body into congruence with internal gender identity
- Improves quality of life
- Diminishes psychological distress, psychiatric co-morbidity
- Helps transition into living in desired gender

Patients may get and use hormones themselves
- Friends, “street”, Internet

For some patients, accessing hormones is more important than other health issues
- HIV care, preventive care, HTN, healthy diet
WPATH Standards of Care

- The World Professional Association for Transgender Health (WPATH)
  - Professional organization devoted to the understanding and treatment of gender identity issues
- Guidelines developed for physically and psychologically safe approach to gender dysphoria
  - Children
  - Adults and adolescents
  - Hormone therapy
  - Surgical interventions (i.e. gender confirmation surgeries)
Standards of Care Criteria

- **Hormone Therapy** (adults)
  - Mental health assessment by qualified provider
  - Persistent, documented gender dysphoria
  - Capacity to make a fully informed decision, to consent for treatment
  - Age of majority
  - Medical and mental health concerns must be reasonably controlled

- **Chest/Breast Surgeries**
  - 1 Letter of referral mental health provider
  - Recommend 12 months hormones for augmentation (TW)

- **Genital Surgeries**
  - 2 letters from separate mental health providers
  - 12 months hormone therapy (if medically able) as appropriate to gender goals
  - 12 month experience in lived gender role IF genital reconstruction (vaginoplasty, phalloplasty, etc)

Exceptions for harm reduction, other situations

Rest criteria as per hormone therapy
Role of the Primary Care Provider: Current Status

- May or may not provide hormones
  - More common in long-standing, post-genital surgery patients
- Monitor labs and side effects
- Treat co-morbid conditions
- Provide primary care
- Many areas lack TG specialty services, and primary care providers may “stumble into” doing hormone therapy
Role of the Primary Care Provider: Hormone Therapy

**Bridging**
- Provide limited (i.e. 1–6 month) hormones while helping the patient to find a clinician to take over hormone care
- Assess current regimen for safety and drug interactions, substitute safer medications or doses when indicated
- Need to work with patient to establish limits as to the time length of bridging therapy.

**Maintenance hormones**
- Post-operative hormone replacement
- Non- or pre-SRS hormone maintenance

**Initiating and Maintaining Hormone Therapy**
Feminizing Hormone Therapy

- Desired Effects
  - Smoother, softer skin
  - Reduce body and facial hair
    - Only electrolysis/laser eliminates hair
  - Stop/slow androgenic hair loss
  - Breast development
    - Variable—50% dissatisfied
  - Increase body fat, decrease lean muscle
    - Increase soft tissue hips and buttocks
  - Decrease or eliminate

- Loss erections can be problematic for some
  - Sex work, relationships, condom slippage

- Over time, some changes permanent

- Does NOT
  - Reverse balding
  - Change voice
  - Shrink bone or cartilage
    - Adam’s apple
    - Facial structure, feet, hands
  - Provide reliable contraception

- Patient looks like themselves, only more feminine

Changes occur over 2+ years
Feminizing Tx: Complications

- **Estrogen**
  - Venous Thromboembolism
    - Significantly reduced with esradiol vs. other estrogens, transdermal delivery,
    - Risk factors: Over 40, smoker, sedentary
  - Weight gain
    - Diabetes, HTN, high triglycerides
  - Elevated transaminases, May decrease bone density
  - Increased risk MI, CVA, possibly breast CA
    - Based on cross-sectional and observational studies, case reports, extrapolated from longitudinal data postmenopausal HRT
  - Cholelithiasis

- **Example dose:** Oral estradiol 2–8 mg daily
Feminizing Tx: Other

- **Spironolactone (anti–andro-gen)**
  - High Potassium
  - Constipation
  - Hypotension
    - Example dose: 200–400 mg po daily

- **Finasteride (anti–andro-gen)**
  - No significant side effects
    - Example dose: 5 mg po daily

- **Progestins**
  - Not as commonly used; same risks as for HRT, OCP’s
Gender Confirmation Surgeries

- Feminizing
  - Orchiectomy (remove testicles)
  - Vaginoplasty, labiaplasty
    - Penile inversion technique
  - Prostate not removed
  - Breast augmentation
  - Facial, Adam’s apple surgery
Vaginoplasty and labiaplasty
Masculinizing Hormone Therapy

- **Desired Effects:**
  - Stops menses
  - Increases body and facial hair
  - Increases muscle mass
  - Lowers voice
  - Increases libido
  - Enlarges clitoris
  - Decreases fertility

- **Does NOT:**
  - Shrink breasts
  - Change bone or cartilage structures (Hips, tendons, ligaments)
  - **Provide reliable contraception**

Over time, many changes become permanent.

Changes occur over 2+ years, somewhat faster than feminizing change.
Masculinizing Tx: Complications

- Acne, Balding
- Worsens lipid profile: ↑ LDL, ↓ HDL
- Increase cardiovascular risk profile in long term
- May decrease bone density
- Ovarian, uterine CA risk unclear
  - If increased at all, only mildly elevated
- Increase red blood cell mass (hemoglobin)
  - Increase risk arterial thrombosis
- Destabilize some psychiatric illnesses
  - Bipolar disorder, schizoaffective
- Teratogen
  - Masculinize female fetus
Common Masculinizing Meds

- Testosterone gel (1%, 1.62%, 2%)
  - comes in pre-measured single use packets or pumps
  - Various types apply to: underarm, thigh, shoulders

- Testosterone transdermal patch
  - IM testosterone 50–70 mg weekly

- May use medroxyprogesterone (IM or oral) or Leuprolide to stop menses early on
Gender Confirmation Surgeries

- **Masculinizing**
  - Mastectomy with chest contouring
    - Always some breast tissue left
  - Total Hysterectomy, Bilateral oophorectomy
  - Metoidioplasty
    - Release and lengthening of clitoris
    - May reroute urethra to urinate standing
  - Phalloplasty, scrotal implants
Phalloplasty, Metoidioplasty
Other Trans Health Issues

- **Silicone**
  - Silicone injected by non-health professional to feminize lips, hips, breasts, etc.
    - May be industrial grade
    - Infection, granulomas, embolism, disfigurement, ineffective mammography

- **Needle sharing**
  - Injectable hormones, risks as per any needle sharing; supraphysiologic dosing risks

- **Genital Taping or Tucking**
  - Skin breakdown, inguinal hernia
Health Maintenance

- Care based on the organs present rather than perceived gender of the patient
  - Esp. breast tissue, cervix, uterus, ovaries, testicles and prostate
  - Prostate remains after feminizing genital surgery—patient may be unaware of this
- If not on hormones, screening tests same as non-trans (cisgender) patients of the same age, risk factors, family history and natal sex
STI screening

- Take a thorough and regularly updated sexual history
  - Trans persons can have long periods without a sexual partner; trans ≠ high risk
  - HIV and STD's, including hepatitis B and C, disproportionately affect the TG community
    - Transwomen of color appear at higher risk

- In sexually active patients, screen as per usual guidelines
  - Urine–based GC/chlamydia screen more acceptable than urethral/cervical swab; may be more accurate if any genital surgery
Cancer screening: Breast

Transmen:
- Cancer risk reduced after chest surgery
  - But likely higher than natal males; often delayed dx
- Consider yearly education/chest exams for all, no mammograms

Transwomen:
- Documented cases; relative risk of cancer still unclear
  - Likely higher than natal male, lower than natal female
  - Theory: risk related to lifetime estrogen exposure
  - Greatest cost–effectiveness demonstrated in women age 50 and older
- Yearly breast exams if any breast development
- Mammograms: start age 50 and if on estrogen > 5 years
  - If family history of breast cancer, consider start age 40
  - If hormones started as adolescent, consider start age 40
Vaginal mucosa thin on testosterone therapy
May be emotionally and physically painful exams
- small speculum, lots lubricant, one finger bimanual
- Testosterone can mimic dysplasia on Pap
  - Note testosterone therapy on lab request
  - Paps more often “inadquate” on report in TM

Post-hysterectomy—No Paps needed unless prior high grade dysplasia
Otherwise: pap smears per guidelines
- based on risk of acquiring high risk HPV
- Consider bimanual exam separate from Pap
- Consider delay in patients never had genital sexual activity

May need to negotiate when to start Paps—but it is more uncomfortable the longer on testosterone
HPV vaccine
   ◦ Transmen may not perceive themselves at risk due of male identity, or if exclusively female partners

Transwomen
   ◦ No cervix, so no need for Paps
     • If penile inversion vaginoplasty with history of genital warts, immunosuppression, other concerns; may consider neovagina Pap every 3 years
     • Consult gynecologist as needed.
Cancer Screening: Ovaries, Uterus

- TM without hysterectomy
- Recommend screen patients for symptoms and signs of PCOS
- Consider periodic pelvic exam for at risk TM >50, including family history of uterine cancer or if PCOS is present
- Consider hysterectomy if:
  - Ongoing concerns regarding uterine cancer,
  - Pt. is unable to tolerate exams/evaluation for dysfunctional uterine bleeding AND
  - If maintenance of fertility is not desired and the patient’s health will not be adversely affected by surgery
Cancer Screening—Prostate

- Feminizing hormone therapy appears to decrease the risk of prostate cancer, but the degree of reduction is unknown
  - Documented cases among TW have occurred
- Routine PSA screening in TW not currently supported by evidence
- PSA levels may be falsely low in TW with medical or surgical interventions, even if cancer is present
- Consider screening in high risk patients ≥ age 50
- Educate all TW esp. ≥ age 50 regarding the small but present risk of prostate cancer even after genital surgeries
Cardiovascular Health

- Feminizing AND masculinizing hormones appear to increase cardiovascular risk or risk factors.
- Screen for DM, dyslipidemia and HTN at least yearly for patients on TG hormones.
- Control HTN, DM, hyperlipidemia if present:
  - Lifestyle changes
  - Medications
  - Adjust hormones if needed (don’t d/c if possible)
- SMOKING CESSATION!!
Hypertension, Lipids

- **HTN**
  - **TW**: Consider spironolactone as part of an antihypertensive regimen

- **Lipids:**
  - **TW**: Use transdermal estrogen, particularly in those with high triglycerides
  - **TM**: Avoid supraphysiologic testosterone levels
  - Daily topical or weekly IM regimens are preferable to bi-weekly injection.
Type 2 Diabetes Mellitus

TW
- Hormone therapy may increase the risk of T2DM in those at prior risk of DM
- Recommend annual fasting glucose testing or HgbA1c for TW on hormone therapy with risk factors for diabetes

TM
- Consider screening (by patient history) for PCOS
- Periodic DM screening is indicated if PCOS is present, or other risk factors for DM
Puberty suppression with GnRH agonists

- To prevent psychological harm and provide relief
  - To provide time and conditions to explore gender
  - Physical changes associated with suppression are not permanent
- Better physical outcomes with cross-gender hormones*
  - Fewer established secondary sex characteristics than adults
  - If pubertal suppression used, can achieve good feminization/masculinization with low doses of hormones
Parting Thoughts

Transgender medicine is exciting, full of new resources, and great new research opportunities

- Gender is a spectrum—and can be fluid
- Try this out: we treat people and their human bodies, not “men” and “women”
  - What does the person need?
  - What are the organ systems present?
    - Think: “Can my patient possibly get pregnant?” “Does my patient have a prostate?” “What are their risk factors for cardiovascular disease?”
- Minority stress: the world is not nice to trans persons, and this impacts health. Help where you can.
- Be prepared to ask questions, permission, and forgiveness.
Resources

World Professional Association for Transgender Health (WPATH)  www.wpath.org

Program in Human Sexuality
www.fm.umn.edu/fm/phs/home.html
612–625–1500

The Fenway Institute: National LGBT Health Education Center
www.lgbthealtheducation.org/
--lots of great downloadable and virtual resources

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**Resources**

  - Includes primary care, hormone therapy, other health issues

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Resources

- American Association Medical Colleges
  - “Implementing Curricular and Institutional Climate Changes to Improve Health Care for Individuals Who Are LGBT, Gender Nonconforming, or Born with DSD”
    http://offers.aamc.org/lgbt–dsd–health
  - Diversity 3.0 Learning Series— LGBT, Gender Nonconforming, and DSD Health
    - Series of online, on-demand video resources
      www.aamc.org/initiatives/diversity/learningseries/