Management of Transgender Patients

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Legacy Health

Disclosure of Relevant Financial Relationships

- I have no financial relationships to disclose
Objectives

- Be aware of the social issues of transgender people that can affect their health
- Understand the use of hormones in caring for transgender people
- Describe the screening needed for transgender people undergoing treatment

Terminology

- Gender Noncomformity
  - Gender identity, role, expression differs from cultural norms for people of a particular biological sex
- Gender dysphoria
  - The discomfort/distress caused by the discrepancy between a person’s gender identity and sex assigned at birth
- Cis = same
  - Gender identity is same as biological sex
- Trans = opposite
  - Gender identity is opposite of biological sex
- Transgender
- Transsexual
- Genderqueer
- Intersex
Transgender per ICD10

<table>
<thead>
<tr>
<th>ICD-10</th>
<th>ICD-9</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>F64.0</td>
<td>302.85</td>
<td>Gender dysphoria in adolescent and adult</td>
</tr>
<tr>
<td>F64.0</td>
<td>302.85</td>
<td>Gender dysphoria in adult</td>
</tr>
<tr>
<td>F64.2</td>
<td>302.6</td>
<td>Gender dysphoria in pediatric patient</td>
</tr>
</tbody>
</table>

- Required for OHP to qualify for hormones/surgery
- Other codes are often used, but these are the preferred ones (vs transgender codes)

Transgender per DSM V Criteria

- Marked difference between the individual’s expressed/experienced gender and the gender others would assign him or her
- Not a mental disorder, distress is key element
- Continue for at least 6 months
- In children the desire must be present and verbalized
- Causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- Manifested by a strong desire to be treated as the other gender, be rid of ones sex characteristics, or strong conviction that one has feelings and reactions typical to the other gender.
Epidemiology

Figure 5. Percent and number of adults who identify as LGBT in the United States.

<table>
<thead>
<tr>
<th>Category</th>
<th>Women</th>
<th>Men</th>
<th>Transgender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesbian/Gay</td>
<td>1,359,801</td>
<td>1,539,912</td>
<td>697,529</td>
</tr>
<tr>
<td>Bisexual</td>
<td>2,648,033</td>
<td>2,491,034</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4,007,834</td>
<td>4,030,946</td>
<td></td>
</tr>
</tbody>
</table>

Gary J. Gates, Williams Distinguished Scholar
April 2011

Health Outcomes
Injustice at Every Turn 2011

Experiences of Discrimination and Violence in Public Accommodations

<table>
<thead>
<tr>
<th>Location</th>
<th>Denied Equal Treatment</th>
<th>Harassed or Disrespected</th>
<th>Physically Assaulted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Store</td>
<td>32%</td>
<td>37%</td>
<td>3%</td>
</tr>
<tr>
<td>Police Officer</td>
<td>20%</td>
<td>29%</td>
<td>6%</td>
</tr>
<tr>
<td>Doctor's Office or Hospital</td>
<td>24%</td>
<td>25%</td>
<td>2%</td>
</tr>
<tr>
<td>Hotel or Restaurant</td>
<td>19%</td>
<td>25%</td>
<td>2%</td>
</tr>
<tr>
<td>Government Agency/Official</td>
<td>22%</td>
<td>22%</td>
<td>1%</td>
</tr>
<tr>
<td>Bus, Train, or Taxi</td>
<td>9%</td>
<td>22%</td>
<td>4%</td>
</tr>
<tr>
<td>Emergency Room</td>
<td>13%</td>
<td>16%</td>
<td>1%</td>
</tr>
<tr>
<td>Airplane or Airport Staff/TSA</td>
<td>11%</td>
<td>17%</td>
<td>1%</td>
</tr>
<tr>
<td>Judge or Court Official</td>
<td>12%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Mental Health Clinic</td>
<td>11%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Legal Services Clinic</td>
<td>8%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>Ambulance or EMT</td>
<td>5%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>Domestic Violence Shelter/Program</td>
<td>6%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Rape Crisis Center</td>
<td>5%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Drug Treatment Program</td>
<td>3%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Health Outcomes
Injustice at Every Turn 2011

Recent DHHS Proposal

- Per the New York Times 10/21/18
  > The agency’s proposed definition would define sex as either male or female, unchangeable, and determined by the genitals that a person is born with.
  > “Sex means a person’s status as male or female based on immutable biological traits identifiable by or before birth,” the department proposed in the memo, which was drafted and has been circulating since last spring. “The sex listed on a person’s birth certificate, as originally issued, shall constitute definitive proof of a person’s sex unless rebutted by reliable genetic evidence.”

- Per other reports HHS has declined comment & said the report was “misleading”
Education/sensitivity at all stages of the encounter

- Needs assessment for staff and providers – who has knowledge and skills? What gaps are there?
- All staff need education – clinical, nonclinical, providers, housekeeping, security, technicians, administrative, etc
  - When in doubt ask
- Think about forms and documents
  - Intake form
  - History questionnaire
  - Patient insurance card/ID/bill
  - EHR documentation/templates
  - Workflows
  - Tracking health maintenance when identified gender different from biological sex
- Gender neutral bathrooms

Epic Tools

- FYI flag
Side Bar

Patient Chart Advisories
Take notice of the following advisories for this patient before you continue.

Patient has an FYI of type Transgender
Preferred Name: Samantha
Gender identity: Female
Preferred pronoun: She

Preferred name on the banner & filled in on the letters, mychart

More Epic Tools
Evaluation and Management

- Goal of treatment (hormonal and surgical): improve quality of life by transitioning to a physical state that matches their inner sense of self
- Guidelines:
  > WPATH: World Professional Association for Transgender Health (formerly Harry Benjamin International Gender Dysphoria Association)
  > Callen Lourde CHC (New York)
  > Lyon-Martin Clinic (San Francisco)
  > UCSF Center for Excellence

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Initial Visit

- Health and gender history
- Labs
- Steps to prescribing
- Informed consent
- Coding/documentation
- Follow up
- Screening
Informed Consent process – is an outside letter from mental health needed?

- Need for mental health letter can be readily bypassed if prescribing clinician meets WPATH criteria for conducting assessment themselves (health professional who has appropriate training in behavioral health and is competent in the assessment of gender dysphoria)

- Patient is ELIGIBLE to initiate Hormone Therapy if:
  - Able to make a reasoned and informed decision
  - Adequately Informed of benefits and risks

- Patient is READY to initiate Hormone Therapy if:
  - Has engaged in extensive self-directed reflection with consolidation of gender identity
  - Has access to peer counseling/support
  - Has engaged in discussion with personal circle of friends/loved ones

- ADULTS ONLY - < 18 need a mental health evaluation and letter

Initiating Hormone Therapy

- Baseline Labs, H&P
  - Female Affirming: CBC, CMP, Testosterone, Estradiol, Prolactin, Lipids, TSH
  - Male Affirming: CBC, CMP, Testosterone, Estradiol, Lipids, TSH

- Relative Contraindications prior to treatment:
  - Female Affirming: H/o hypercoaguability, estrogen sensitive neoplasm (esp pituitary adenoma), ESLD
  - Male Affirming: Unstable CAD, untreated Polycythemia

- Considerations: active Tobacco use, active psychosis, active Substance Use

- Evaluate Fertility desires

- Address irreversible and reversible effects through consenting process

- Address timeline of expected changes
Monitoring Hormonal Therapy

- Follow-up in 1, 3, 6, 12 months
  > Office visit and relevant labs
- Review BP, side effects, emotional/physical changes, sexuality, weight, and quality of life (risk behaviors if indicated)
- Continue HCM care relevant to natal gender

Medication Considerations

- Insurance coverage
  > Mandated for Oregon plans but not for national plans
  > Monthly supply (Testosterone – 10ml vs 1ml vials)
  > Associated supplies – syringes, etc
- Trans-friendly pharmacy
  > Portland – NewEra
- Form
  > Testosterone in cottonseed vs sesame oil – different consistency and can hurt differently with injection, less site reaction
Monitoring Hormone Therapy

Feminizing Hormones:

- Serum Testosterone assessment: Goal is to suppress Total Testosterone to <55 ng/dL
- Serum Estradiol assessment: Goal is to maintain levels in “healthy female range” but <200 pg/mL
- Recommended Management: Oral Estradiol: titrate up or down by 1 mg/week, max dose 6mg/day, can be QD or divided into BID doses. Oral Spironolactone: titrate up or down by 50mg/week, max dose 400mg/day. Usually not more than 300mg/day.
- Repeat Lab: q4-6 weeks until stable in range

Example Dosing

For Transgender women (MTF): The usual regimen is an estrogen + anti-androgen. Initiate at Starting Dose, titrate to Therapeutic Dose at subsequent visits based on response and lab results (see following section).

<table>
<thead>
<tr>
<th>ESTROGENS:</th>
<th>Preferred Regimen</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Estradiol (Estrace)</td>
<td>1.0 mg BID</td>
<td>6.0 mg total (Divided BID)</td>
<td>PO, BID</td>
<td>Q5</td>
<td></td>
</tr>
<tr>
<td>Injectable Estradiol Cypionate 5mg/ml</td>
<td>2.5 mg (0.5cc)</td>
<td>5mg (1.0cc)</td>
<td>IM or SQ, q2wks</td>
<td>1cc-10cc</td>
<td></td>
</tr>
<tr>
<td>Injectable Valerate 20mg/ml</td>
<td>10 mg (0.5cc)</td>
<td>15mg-20mg (1.5-2.0cc)</td>
<td>IM or SQ, q2wks</td>
<td>1cc-10cc</td>
<td></td>
</tr>
</tbody>
</table>

Alternate Regimen:

<table>
<thead>
<tr>
<th>Oral Estradiol</th>
<th>Starting Dose</th>
<th>Typical Therapeutic Dose</th>
<th>Route/Frequency</th>
<th>Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premarin</td>
<td>1.25mg BID</td>
<td>2.5 mg BID</td>
<td>PO, BID</td>
<td>Q5</td>
</tr>
<tr>
<td>Transdermal Estradiol</td>
<td>Starting Dose</td>
<td>Typical Therapeutic Dose</td>
<td>Route/Frequency</td>
<td>Amt</td>
</tr>
<tr>
<td>Estradiol Patch *</td>
<td>0.05-0.1mg</td>
<td>0.2-0.4mg</td>
<td>TransDerm, q3-4d</td>
<td>Q5</td>
</tr>
</tbody>
</table>

* Transdermal estrogen may be preferred in some circumstances; e.g., age over 45, history of venous thromboembolic disease or cardiovascular risk factors. Although most patches are applied twice weekly, this may differ by product. Goal is to provide an initial dose of 50-100 mcg transdermal estrogen daily.

$ Some providers recommend administering oral estradiol sublingually or injectable estradiol subcutaneously.
Estrogen Risks

- Venous thromboembolism (with oral estrogen, ethinyl estradiol, smokers, hypertension)
- May worsen: CAD, cerebrovascular disease, macroprolactinoma, migraines, hypertension, hypertriglyceridemia, gallstones, liver dysfunction (transaminases >3x)
- Infertility
- Few reported cases of breast, prostate cancer but no increased overall cancer mortality

Spironolactone Risks

- Renal dysfunction, especially in older patients (monitor BUN, creatinine, urine albumin)
- Hyperkalemia
- Hyponatremia
- Drug interactions with ACE inhibitors and ARB’s (hyperkalemia)
- Hypotension
- Erectile dysfunction
- Infertility
Health Maintenance Screening

- Routine Screening as per biological sex
  - Colon cancer
  - Prostate cancer
- Mammogram once on cross-hormonal therapy approx. 5 years
- Consider bone density screening at baseline if risk factors
  - Bone density screening starting at age 60
- Stop smoking

Monitoring Hormone Therapy

**Masculinizing Hormones:**

- Serum Testosterone assessment: Goal range 270-1200 ng/dL; can test mid-dose or trough; amenorrhea is critical for most patients
- Serum Estradiol assessment: Goal is to suppress estradiol to <50 pg/mL and/or to achieve amenorrheic state
- Recommended Management: Injectable: titrate up or down by 50mg until reach 100mg/week
- Repeat Lab: q4-6 weeks until stable in range
Example Dosing

B. For Transgender men (FTM): The usual regimen is testosterone. Initiate at Starting Dose, titrate to Therapeutic Dose at subsequent visits based on response and lab results (see following section).

<table>
<thead>
<tr>
<th>TESTOSTERONE:</th>
<th>Preferred Regimen:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable Testosterone</td>
<td>Starting Dose</td>
</tr>
<tr>
<td>Testosterone enanthate</td>
<td>50mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alternate Regimen:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transdermal Testosterone</td>
</tr>
<tr>
<td>Testosterone gel1% (AndroGel Testro)*</td>
</tr>
<tr>
<td>Testosterone patch (Androderm)</td>
</tr>
</tbody>
</table>

*Some providers recommend administering injectable testosterone subcutaneously.
*Commercially available testosterone enanthate is usually suspended in cottonseed oil and is easier to draw up and inject. Testosterone enanthate is also an option, however, and is compounded with sesame oil.

Testosterone Risks

- Hyperlipidemia/lowered HDL
- Polycythemia (use male reference ranges for evaluating RBC indices)
- Metabolic syndrome risks
- Hypertension
- Aggression
- Excessive libido
- Acne
- Male pattern baldness (androgenic alopecia)
- Infertility (consider egg storage)
Testosterone Risks

- Headaches
- Bone loss (if not on adequate testosterone, esp post oophorectomy)
- Worsens breast/uterine cancer,
- Liver dysfunction
- Pelvic pain or cramping
- Spotting (atrophic endometrium typical)
  > Dyspareunia
- Injection site issues (pain, lumps, allergic rash, infection)
- Risk to cis-female partner with exposure to topical gels or creams

Health Maintenance Screening

- Routine screening as per biological sex
  > Pap smear annually if has cervix
  > Mammogram per guidelines if hasn’t had mastectomy
  > Osteoporosis at age 65
- Stop smoking
Surgical Treatment – Transgender Women

- For the male-to-female (MtF) patient, surgical procedures may include the following:
  1. Breast/chest surgery: augmentation mammoplasty (implants/lipofilling);
  2. Genital surgery: penectomy, orchiectomy, vaginoplasty, clitoroplasty, vulvoplasty;
     - ongoing management needed
  3. Non-genital, non-breast surgical interventions: facial feminization surgery, liposuction, lipofilling, voice surgery, thyroid cartilage reduction, gluteal augmentation (implants/lipofilling), hair reconstruction, and various aesthetic procedures.

WPATH Standards of Care, Version 7

Appendix: Masculinizing Effects in FTM Clients Receiving Testosterone

<table>
<thead>
<tr>
<th>EFFECT</th>
<th>ONSET (MONTHS)</th>
<th>MAXIMUM (YEARS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulilabracine</td>
<td>1-6</td>
<td>1-2</td>
</tr>
<tr>
<td>Facial hair</td>
<td>6-12</td>
<td>4-5</td>
</tr>
<tr>
<td>Androgenic hair loss (scalp)</td>
<td>6-12</td>
<td></td>
</tr>
<tr>
<td>Increased muscle mass</td>
<td>6-12</td>
<td>3-5</td>
</tr>
<tr>
<td>Fat redistribution</td>
<td>1-6</td>
<td>2-5</td>
</tr>
<tr>
<td>Gynecomastia</td>
<td>2-6</td>
<td></td>
</tr>
<tr>
<td>Clitoral enlargement</td>
<td>5-6</td>
<td>1-2</td>
</tr>
<tr>
<td>Vaginal atrophy</td>
<td>3-6</td>
<td>1-2</td>
</tr>
<tr>
<td>Deepening of voice</td>
<td>6-12</td>
<td>1-2</td>
</tr>
</tbody>
</table>

Appendix: Feminizing Effects in MtF Clients Receiving Estrogen and Anti-Androgen

<table>
<thead>
<tr>
<th>EFFECT</th>
<th>ONSET (MONTHS)</th>
<th>MAXIMUM (YEARS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease in muscle mass and strength</td>
<td>3-9</td>
<td>1-2</td>
</tr>
<tr>
<td>Softening of skin</td>
<td>3-9</td>
<td>unknown</td>
</tr>
<tr>
<td>Decreased erections</td>
<td>1-3</td>
<td>5-6</td>
</tr>
<tr>
<td>Breast growth</td>
<td>3-6</td>
<td>3-3</td>
</tr>
<tr>
<td>Decreased testicular volume</td>
<td>3-9</td>
<td>2-3</td>
</tr>
<tr>
<td>Decreased sperm production</td>
<td>Unknown</td>
<td>&gt;3</td>
</tr>
<tr>
<td>Voice changes</td>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from The Endocrine Society Clinical Practice Guidelines, 2009
Surgical Treatment – Transgender Men

- For the female-to-male (FtM) patient, surgical procedures may include the following:
  1. Breast/chest surgery: subcutaneous mastectomy, creation of a male chest;
  2. Genital surgery: hysterectomy/ovariectomy, reconstruction of the fixed part of the urethra, which can be combined with a metoidioplasty or with a phalloplasty (employing a pedicled or free vascularized flap), vaginectomy, scrotoplasty, and implantation of erection and/or testicular prostheses;
  3. Non-genital, non-breast surgical interventions: voice surgery (rare), liposuction, lipofilling, pectoral implants, and various aesthetic procedures.

WPATH Standards of Care, Version 7

Insurance/Billing Considerations

- Encourage patient to seek information re covered benefits
- Coverage currently mandated if insurance provider is based in Oregon using the gender dysphoria code
  - If National Carrier then may be different
  - Only hormones, mastectomy, gender affirming surgery approved
    - Others still considered cosmetic at this time
- Need to discuss patient goals of other treatments
  - Gender affirming surgery (SRS,GRS)
    - Often requires a letter from mental health before surgery
  - Voice Therapy
  - Facial Feminization surgery
  - Electrolysis
    - Needed before surgery in some cases
Community Resources

- Q Center
- Transactive Gender Center
- Sexual and Gender Minority Youth Resource Center (specific for youth)
- Outside In (homeless youth)
- Multiple electrolysis centers that will see transgender clients (including taking OHP)
- Multiple mental health providers provide counseling/letters as needed
- Randall Hospital T clinic – Pediatric Endocrinology clinic specializing in transgender youth

Other considerations

- Supportive Specialty referrals
- ID/passport change
  > Letter or form
- Birth Certificate change
  > Each state has own requirement
  > Some require actual surgery, others just require hormonal treatment
Summary

- Transgender population face complex psychosocial issues
- There is a variety of testing/monitoring needed both for hormonal treatment as well as regular health screening based on biological sex
- There are multiple surgical treatments that can supplement the hormonal treatments
- Portland has a variety of social supports for the patients in the population
- When in doubt ask

Thank you!