Transgender Care 101: A “Primer” for the Primary Care Physician
Who we are...

- Meg McNamara, MD, MS, Associate Professor of Medicine, CWRU School of Medicine, Louis Stokes Cleveland VAMC

- Rita Lee, MD, Associate Professor, University of Colorado Denver, Associate Director for Community & Public Health/Epidemiology, Mentored Scholarly Activity Program, Course Director, LEADS Graduate Level Advocacy Elective

- Lisa Reeves, MD, Clinical Assistant Professor, Albert Einstein College of Medicine, Montefiore Medical Center, Bronx NY
Workshop format

- Getting on the same page
- Videos and small group breakout #1
- The “basics” of transgender care
- Cases, small group breakout #2
- Action plan
Sex: biological and physiological characteristics that define “men” and “women” without regard to one’s own identity

Gender identity: inherent sense of being male or female regardless of sex

Gender dysphoria: discomfort or distress caused by a discrepancy between gender identity and natal sex (DSM-V diagnosis)

Sexual orientation: the sex that a person is physically attracted to

Gender identity ≠ Sexual orientation

Some definitions....

- **Transgender**
  - Individual who identify with the opposite sex rather than natal sex, who have not achieved reassignment to the desired sex

- **Transsexual**
  - Individual who desire reassignment and have committed to transitioning to the desired sex

**Transition:** a process that some transgender people undertake to live as a gender different from the one they were assigned at birth

- Male to Female (MTF) - transgender women
- Female to Male (FTM) - transgender men

*Grant JM. et al. National Transgender Discrimination Survey Report on Health and Health Care*
Transgender care: Mental health

- Higher rates of depression, anxiety, suicidality
  - Rates of suicide are even higher in the veteran population

- Increased risk for substance abuse disorders

- Consider screening at regular visits

Hormonal therapy improves quality of life and mental well-being

Two main goals:

- *Reduce endogenous hormone levels* and their associated sex characteristics
- *Replace with hormones of the preferred sex* using doses and therapies typical for hypogonadal treatment

Transgender hormone therapy: consent

- WPATH and Endocrine Society Guidelines
  - Diagnosis of gender dysphoria
  - Assessment and clearance by mental health professional
  - Real life experience
  - Informed consent – risks/benefits

- Informed Consent Model
  - Real-life experience and mental health assessment NOT necessary
  - Informed consent – risks/benefits

Only absolute contraindication: estrogen- or testosterone-sensitive cancer

Transgender hormone therapy

Before starting:
- Assess interest in child-bearing
- Address medical conditions that can be exacerbated by hormonal depletion/therapy

<table>
<thead>
<tr>
<th>Risk of adverse outcomes</th>
<th>Estrogen: Male to Female</th>
<th>Testosterone: Female to Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high</td>
<td>Venous thromboembolic disease</td>
<td>Breast or uterine cancer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Erythrocytosis</td>
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<tr>
<td>Moderate to high</td>
<td>Macroprolactinoma</td>
<td>Severe liver dysfunction</td>
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<tr>
<td></td>
<td>Breast cancer</td>
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<td></td>
<td>Coronary artery disease</td>
<td></td>
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<tr>
<td></td>
<td>Cerebrovascular disease</td>
<td></td>
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<tr>
<td></td>
<td>Severe migraine headaches</td>
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</tbody>
</table>

Remember: The presence of these conditions does not preclude access to hormone therapy!
What products and doses do I use?

- **Reduce** endogenous hormones
  - Spironolactone 100-200mg/day
  - GnRH agonist 3.75mg sc monthly

- **Replace** using doses typical for hypogonadism
  - Oral estradiol 2.0-6.0 mg/day
  - Transdermal estradiol patch: 0.1-0.4mg/24 h twice weekly
  - Parenteral estradiol valerate: 5-20mg IM every two weeks

Goal testosterone < 55ng/dL
Goal estrogen < 200pg/mL

- Transdermal estrogen may be preferred in patients at increased risk of VTE
- Injectable estrogen may cause cyclical fluctuations in hormone levels
- Avoid supra-physiologic dosing!
- Progesterone not indicated

### Transgender hormone therapy: Male to Female

- **How soon will the patient see changes?**

<table>
<thead>
<tr>
<th>Initiation</th>
<th>3 months</th>
<th>6 months</th>
<th>9 months</th>
<th>12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased libido</td>
<td>Redistribution of body fat</td>
<td>Decrease in muscle mass, strength</td>
<td>Softening of skin</td>
<td>Breast growth</td>
</tr>
<tr>
<td>Decreased spontaneous erections</td>
<td></td>
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</tr>
</tbody>
</table>

Transgender hormone therapy: Male to Female

What should I monitor and how frequently?

- Physical exam
- Serum testosterone
- Serum estradiol
- Electrolytes if on spironolactone

Hembree WC. et al J Clin Endocrinol Metab. 2009; 94(9):3132-3154.
Transgender Hormone Therapy: Female to Male

- What products and doses do I use?
  - Reduce endogenous hormones and replace using doses typical for hypogonadism
    - Oral testosterone 160-240mg/d
    - Parenteral testosterone 100-300mg IM every 2 weeks
    - Transdermal gel 1% 2.5-10g/d
    - Testosterone patch 2.5-7.5mg/d
    - GnRH agonist 3.75mg sc monthly
  
  - Goal testosterone 350-700ng/dL
  - Goal estrogen <50pg/mL

- Transdermal products produce more consistent hormone levels
  - Avoid supra-physiologic dosing!

# Transgender hormone therapy: Female to Male

How soon will the patient see changes?

<table>
<thead>
<tr>
<th>Acne</th>
<th>Fat redistribution</th>
<th>Cessation of menses</th>
</tr>
</thead>
</table>

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</thead>
<tbody>
<tr>
<td>Clitoral enlargement</td>
<td>Vaginal atrophy</td>
<td>Facial/body hair growth</td>
<td>Scalp hair loss</td>
<td>Increased muscle mass/strength</td>
</tr>
</tbody>
</table>

What should I monitor and how frequently?

- Physical exam: weight, bp
- Serum testosterone
- Complete blood count
- Liver function tests
- Lipid profile

Monitor lipids, fasting blood glucose, hgba1c at regular visits

Transgender care: Surgical options

MALE TO FEMALE

- Breast augmentation
- Genital surgery
  - Penectomy
  - Orchietectomy
  - Vaginoplasty
  - Clitoroplasty
  - Vulvoplasty
- Feminizing procedures
  - Facial feminization
  - Voice surgery
  - Thyroid cartilage reduction

FEMALE TO MALE

- Mastectomy
- Genital surgery
  - Hysterectomy and salpingoopherectomy
  - Phalloplasty, scrotoplasty
  - Implantation of penile/scrotal prostheses
  - Vaginectomy
- Virilizing procedures
  - Voice surgery
  - Pectoral implants

“Screen what you have”

- Cancer screening should be based on the patient’s anatomy

- Be aware that cervical and prostate cancer screening may cause significant anxiety
  - Emotional conflict between self-perception and physical anatomy may be heightened
<table>
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<tr>
<th>Preventive care service</th>
<th>Male to Female</th>
<th>Female to Male</th>
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<tbody>
<tr>
<td>Breast cancer screening</td>
<td>If patient is at average risk, follow screening guidelines for biological women</td>
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</tr>
<tr>
<td>Cervical cancer screening</td>
<td>NA</td>
<td>If patient is at average risk, follow screening guidelines for biological women</td>
</tr>
<tr>
<td>Prostate cancer screening</td>
<td>If patient is at average risk, follow screening guidelines for biological men</td>
<td>NA</td>
</tr>
<tr>
<td>Bone density testing</td>
<td>Consider if risk factors for osteoporotic fracture are present Screen low-risk patients at age 60 or if not consistently compliant with hormone therapy</td>
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