Primary Care and Hormonal Treatments for Transgender Patients

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Disclosure

There are no relevant financial relationships with any commercial interests to disclose

The Genderbread Person

Expression

Sex

Identity

Gender

Biological Sex

Orientation

Sexual Orientation

Primary Care and Hormone Therapy

- You already know 90% of what you need to know
- Most medical care of transgender patients has nothing to do with being transgender
- 100% of the medical treatments and most of the surgeries are used in cisgender patients

Resources:

Transline.zendesk.com
How does this work? Typical Narrative...

- Accept your own trans identity and seek help
  - Internet, local groups, organizations
- Find a therapist and receive a dx (and letter)
  - 3 month 'Real Life Experience' OR
- Psychotherapy (duration TBD, usually 3+ months)
- Find a medical provider
  - Start hormone therapy
  - Non-genital surgery (same time as HRT)
  - 1 year successful – genital surgery

Typical Narrative (following SOC)

- Does everyone do it this way?
- If they don't should you still treat them?

Harm Reduction

- WPATH-SOC explicitly endorse harm reduction

Medical Treatments: Fundamentals

- Set realistic goals
  - What will, might, and won't happen
- Emphasize primary and preventative care
- Use the simplest hormonal program that will achieve goals
  - Every option doesn't work for every patient
- Cost, ease of use, safety
Medical Treatments: MTF

- Estrogens at high dose
  - 3-5x normal replacement doses
  - Estrogen suppresses Testosterone!
- Anti-Androgen
  - Spironolactone and others
  - Orchiectomy
- Results variable
  - Age at starting is important
  - Genetics plays a big part

Hormones: MTF - Estrogens

- Beneficial effects
  - Breast growth
  - Suppress androgen production
  - Changes of body habitus (muscle and fat)
  - Softening of skin
- Contraindications/Precautions
  - Same as in cisgender women
  - Individual risk/benefits
  - Safety Transdermal >> IM or PO

Hormones: MTF - Anti-Androgens

- Antiandrogens - All
  - Decrease T production or activity
  - Slow/stop MPB, and decrease unwanted hair growth
- Spironolactone 50-300 mg/d divided bid
  - Cheap, reasonably safe
  - Hyper-K+, diuresis, changes in BP, just don’t like it
- Flutamide and Cyproterone inhibits androgen receptor binding (Flutamide is available in US and non-steroid)
- 5-α-reductase inhibitors – Stops T→DHT

Hormones: MTF - Monitoring

- Every Visit
  - BP, Weight, BMI
  - Safety
  - Mental health
  - General screening based on age, organ, gender, and sex appropriate norms
- Patient education
  - S/Sx of TEDz
  - Healthy Habits
  - Vision changes or lactation

Hormones: MTF - Efficacy

- What is adequate treatment?
  - Pt outcomes – breast growth (peak 2-3 yrs), changes in skin, hair, fat/muscle, libido
  - The floor – testosterone levels (female range)
  - The roof – prolactin level
    - >20 possibly too much (ask if ‘extra’ E use or other meds)
    - >50 worry a great deal about PL-oma
Hormones: FTM
- Testosterone Injected Esters (cheapest)
  - Cypionate
    - Cheapest - $60-100 for 10ml (~4mos supply)
  - Enanthate
    - Slightly more expensive
- Transdermal
  - More expensive
    - $7/day retail, $1/day compounded
    - Risk of transfer (kids and pregnant women)

Hormones: FTM
- Steady State post 3-5 T½
  - T½ 8-10 days
  - ~2 months
- Side effects happen at peak and trough

Hormones: FTM - Monitoring
- Every Visit
  - BP, Weight, BMI
  - Safety
  - Mental health
  - General screening based on age, organ, gender, and sex appropriate norms
- Patient education
  - Vaginal bleeding
  - Healthy habits
  - Tx available for acne, MPB

Medical Treatments: Fundamentals
- Clinical monitoring most important
- Same adverse events in cisgender pts w/ same meds (use what you know!)
- Labs
  - 0, 2, & 6 mo initially then (semi)annual or p changes
  - CBC, CMP, Lipids
  - T (trough) in FTM

ALT    Cr    Glucose
Hb     MCV

Effects
- Hair Growth/Loss
- Amenorrhea
- Voice deepening
- Clitoromegaly
- Fat and muscle changes
- Acne
- Worsening surrogate endpoints for CVD
- Weight gain

Hormonal Treatments: Is this safe?
  - DESIGN: Retrospective, descriptive study @ univ. teaching hospital that is the national referral center for the Netherlands (serving 16 million people)
  - SUBJECTS: 816 MTF & 293 FTM on HRT for total of 10,152 pt-years
  - OUTCOMES: Mortality & morbidity incidence ratios c/w general Dutch population (age & gender-adjusted)
Hormonal Treatments: Is this safe?


293 FTMs c/w ♀

???

10,152 pt years

816 MTFs c/w ♂

???

- MTF/FTM total mortality no higher than general pop/l.
- Largely, observed mortality not r/t hormone treatment.
- VTE was the major complication in MTFs. Fewer cases after the introduction of transdermal E in MTFs over 40.
- In MTFs increased morbidity from VTE and HIV and increased proportion of mortality due to HIV.

Hormonal Treatments: Is this safe?

  - DESIGN: Cohort
  - SUBJECTS: 966 MTF & 365 FTM on HRT for median 18.5 years
  - OUTCOMES: MTF mortality increased – almost all due to suicide and HIV. FTM mortality unchanged.

Hormonal Treatments: Is this safe?

  - No hard clinical endpoints
  - TG increased in both
  - Most CV events were in MTFs
  - Study quality poor

Hormonal Treatments: Is this safe?

  - Same clinic group as 1997 Dutch Van Kesteren paper but now 2236 MTF, 876 FTM (1975-2006)
  - Outcome M&M Data, data assessing risks of osteoporosis and cardiovascular disease, cases of hormone sensitive tumors and potential risks

Hormonal Treatments: Is this safe?

- Gooren L, et al. Cardiovascular Risks
  - Analyzed studies of surrogate markers for CVDz in MTF/FTM: Body composition, lipids, insulin sensitivity, vasc function, hemostasis/fibrinolysis, others (HC CRP)
  - Some worsen, some improve, some are unchanged – much of the worsening seems likely d/t weight
  - MTF do worse than FTM
  - Counsel patients @ modifying CV risk
Hormonal Treatments: Is this safe?

- Gooren L, et al. Hormone Dependent Tumors
  - Lactotroph Adenoma
    - Rare
    - Check PL!
  - Prostate Cancer
    - Prostatectomy is not a part of SRS
    - Screen based on the organs present
    - Withdrawal of testosterone may decrease but doesn't eliminate the risk of BPH and malignancy
    - May falsely lower PSA

Hormonal Treatments: Is this safe?

- Gooren L, et al. - Breast cancer
  - MTF - Estrogen exposure: dose and duration
    - Screen starting at 50 if one other risk factor present
    - Progesterone use (esp if cyclic), obesity, FH, HRT>5 years, Chest radiation
  - FTM
    - Reported in 1 case 10 years after mastectomy
    - Mastectomy reduces but doesn’t eliminate risk

Gynecologic Cancer risks in FTMs

- Gooren L, et al. Gynecologic Tumors
  - Cervical
  - Ovarian
  - Endometrial

Gynecologic Cancer risks in FTMs

104 Hysterectomies: Atrophy in 50, 54 Proliferative, 4 polyps, 8 hyperplasia, 1 with dysplasia with a small foci of carcinoma in situ.
**Gynecologic Cancer risks in FTMs**

**Cervical Cancer Risk Reduction from Pap Smears**

![Graph showing cervical cancer risk reduction from Pap smears.](image)

**Gynecologic Cancer risks in FTMs**

**Is it effective?**

- Of 28 studies 23 included Psych/HRT/Surgery
- Pre-tx suicidality 30%, 8% post treatment
- Significant improvements in SCL-90 and MMPI and in measures of gender dysphoria
- One study of Psych/HRT/Surgery showed long term SCL-90 scores were in non-clinical range
- Five studies assessed employment and financial status and all improved

**What about regret ???**

  - 74 studies and 8 reviews published b/w 1961-1991
  - Less than 1% long term regret in over 400 FTMs
  - 1.5% regret in over 1000 MTFs
  - Compare with regret rates for gastric bypass, breast recon after mastectomy, surgical sterilization
  - Studies after 1991 show lower rates of regret (and found risk of regret correlates well with surgical success.)
Making Things Official

Identity Document Changes
- Part of the medical treatment for GID
- Lack of appropriate ID
  - Vulnerability to interpersonal violence
  - Inability to
    - Get a job
    - Make a purchase with a credit card
    - Board a plane
    - Enter a federal building
    - Voluntary withdrawal from activities

What can you get in CA w/o SRS?
- Drivers License/State ID - DL328
- Passport
- Court Ordered Name and Gender Change
- CA Birth Certificate (possibly other states as well)
- Social Security NAME
- Social Security GENDER MARKER

Supportive Letters
- There are no gender cops
- It's not your job to enforce bad policy
- Your job
  - Advocate for your patients needs
  - Don't lie
  - Give your true medical opinion
  - Don't write something if you don't have experience

Questions?
- I need...
- project-health.org/transline
- anand@transgenderlawcenter.org
- Lyon-Martin Health Services – Transgender TéléMedicine – Elizabeth Sekera, RN
  elizabeth@lyon-martin.org