Transgender History and Physical Exam: Medical Assessment for Hormone Therapy

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Goals

- To outline a systematic approach to the transgender specific history and physical exam
  - Provides a platform for comprehensive health care
- To introduce the basic medical assessment for hormone therapy

Program in Human Sexuality (PHS)

- Part of the Dept. of Family Medicine at University of Minnesota
- Research, Educational and Clinical Missions
- Clinical Areas
  - Transgender Health
  - Female and Male Sexual Dysfunction
  - Sex Offender Treatment Program
  - Compulsive Sexual Behavior

Transgender Services at PHS

- The oldest continuously operating gender identity center in U.S.
- Serves 100 new clients each year from across Upper Midwest state area
  - MN, ND, SD, WI, Iowa, Nebraska
- **Clinical Services**
  - Psychological, physical, and psychiatric evaluations
  - Individual, group, couple, and family psychotherapy
  - Evaluation and treatment of children and adolescents
  - Physical health care, including hormones
  - Recommendations for sex reassignment surgery
  - Ongoing support for transgender individuals who have had sex reassignment
  - Counseling for intersexuality
  - Sex therapy

Providing Good TG Health Care: Names, Pronouns, Privacy

- Address the patient by their desired name--this may change back and forth
  - Patients may get legal name change
  - if not, may need to have both legal and desired name on chart
- Use pronouns appropriate to name patient is using, how patient is presenting
- When in doubt—"How would you like to be addressed?"
- Has patient disclosed TG issues to their partner, family, employer?
  - Knowledge helps understand patient, confidentiality needs
  - Review confidentiality policies with patient

The Transgender Specific History

- Establish rapport with patient
  - Assess what organs are present
    - More complex for patients involved or interested in hormonal and surgical interventions
- Assess Past/current surgical or hormonal interventions
  - Therapist or psychiatrist?
  - Physician currently prescribing hormones, if any
  - Release of records
- Future plans
  - Desire for hormones or surgery?

TG Specific History: Surgeries

- MtF:
  - breast augmentation
  - Orchiectomy
  - vaginoplasty, labiaplasty
  - cosmetic procedures
    - Facial feminization, tracheal shave, etc.
- FtM:
  - Chest surgery (mastectomy)
  - Hysterectomy, vaginectomy
  - Genital reconstruction
    - Metoidioplasty
    - Phalloplasty
    - Scrotal implants

TG Specific History: Hormones

- Current and past regimens
  - Estrogens, progestins, anti-androgens?
  - Dose and delivery method
    - Injectables? Needle-sharing?
  - Prescription vs. Internet, other
  - Complications, positive effects
- "Herbal Hormones"
  - MtF: phytoestrogens
  - FtM: DHEA, Androstendione, other androgen precursors
- What does patient expect from hormones?
  - Assess how realistic

Current and Past Medical History

- Has patient been getting regular care?
- Past or current conditions affecting hormone therapy:
  - Cardiovascular
  - DM
  - Psychiatric
  - Liver, renal disease
  - HIV
  - VTE
  - Hormonally mediated cancers

Current and Past Medical History

- If patient already on hormones, need to assess for signs and symptoms of:
  - MtF
    - glucose intolerance or diabetes
    - VTE
    - HTN
    - Cholelithiasis
    - Cardiovascular and cerebrovascular disease
    - Liver disease

Current and Past Medical History

- FtM
  - HTN
  - cardiovascular or cerebrovascular disease
  - liver disease
  - Arterial thrombosis or other signs polycythemia
  - tendon/ligament injuries
  - Psychiatric symptoms
    - Irritability, manic or hypomanic, psychotic symptoms primarily

Family History

- Thorough Family History
  - Especially assess for conditions affecting hormone therapy as per current/past medical history
- Hormone therapy can affect cancer risk and these patients may need more frequent screening

Mental Health Issues

- 1997 study (Cole) suggests no greater rate of mental illness among TG than general population
- However, depression not uncommon
  - 30-40% in SF study had psych med prescribed.
  - MN (2000) study: 46% considered or attempted suicide in the last three to five years.
- Rates of drug abuse not well known;
  - may be higher due to self-medication for depression, high rates of exposure to discrimination and abuse

Sexual History

- Sexual orientation is distinct from gender identity—
  - straight, bisexual, gay or lesbian, in reference to their desired gender
- HIV and STD's, including hepatitis B and C, disproportionately affect the TG community
  - Particularly in those having sex with men
  - Needle sharing with hormone
  - high risk sexual behavior (incl. sex work)

Social History

- Work
- Financial stressors
- Family
- Lifestyle habits
  - Smoking history!
  - Alcohol, substances
  - Exercise
  - Diet

Physical Exam: Being Respectful

- Discomfort with their body
  - Physical reminder that their body doesn't match their internal sense of gender
  - Body may be in transition
  - Concern that physician may deny care, see them as a "freak"
  - Avoidance or underutilization of primary care

Being Respectful

- Discuss with your patients when, where and how you might need to touch
- Do you really need the patient to undress? How much?
- Breast, genital, rectal exams: Do you really need to do these exams at this visit?

The Transitioning Body

- MtF on hormones:
  - May have feminine breast shape and size, with masculine shaped nipples
  - Fibrocystic breasts if silicone injections
  - Minimal body hair, may have male pattern hair loss, may have noticeable facial hair
  - Testicles small and soft
  - Defects or hernias at the external inguinal ring due to “tucking" the testicles near (or into) the inguinal canal

Transition (MtF)

The Transitioning Body

- FtM on hormones:
  - Breasts (if not had chest surgery)
  - Beard growth, increased body hair
  - Enlarged clitoris, vaginal atrophy
  - Acne, male pattern hair loss
  - Deeper voice
  - Increased upper body mass, but female shaped hips

Transition (FtM)

What to examine and how

- ***Structure exam based on the organs present rather than the perceived gender of the patient***
- The nature of the visit—acute problem vs. health maintenance
  - Patients on hormones need BP, weight at every visit
  - Patients on estrogen need heart, lung, extremity exams regularly

Physical Exam: Health Maintenance

- Breast
  - If any significant breast tissue, needs yearly breast exam
  - FtM after chest surgery—some tissue and cancer risk remains, needs yearly exam
  - Technique same as usual exam
- Penis and testicles
  - Testicular and hernia exam, particularly in younger patients at risk of cancer
  - Penis exam mainly for STI check

Health Maintenance Exam

- Prostate
  - Prostate remains after SRS
  - Patient may be unaware of this!
  - Yearly exams over age 50, younger if risk factors for prostate CA
  - Need digital rectal exam for rectal CA screen anyway

Health Maintenance Exam

- Uterus, Ovaries
  - May be increased risk endometrial, ovarian cancer among FtM on testosterone
  - Regardless, risk increases with age
  - Bimanual pelvic yearly after age 30-35 at minimum
  - If cannot tolerate, may need pelvic ultrasound or exam under sedation
  - Leave plenty of time for this exam

Health Maintenance Exam

- Cervix
  - Cervix NOT present post SRS (either FtM or MtF)
  - No need for Pap smears IF no cervix and no history of dysplasia
- If cervix is present
  - Assess risk for cervical dysplasia
  - Assess level of potential discomfort with speculum exams
    - Vaginal mucosa atrophic on testosterone therapy, resulting in painful exams
  - small speculum, lots lubricant, one finger bimanual
  - If no penetrative intercourse, under 21, can defer
  - May need entire visit for this one exam

Health Maintenance Exam

- Vagina
  - MtF patients post-SRS don't need routinely unless concerns about stenosis, discharge, or history of genital warts/dysplasia prior to surgery
  - Small speculum, lots lubricant
  - FtM—included in pelvic exam above

Physical Exam: Take home message

- Be respectful
  - Sensitive exams: do you need to do this today?
  - Communicate
  - Minimize discomfort
- Base exam on organs present, not perceived gender of patient

Medical Assessment for Hormone Therapy

- Assess patient expectations
- Discuss likely development outcomes and timeline
- Discuss medications and doses used
- Discuss short and long term risks
  - Individualize patients risk profile
    - Including desire for fertility
  - Minimize controllable risks prior to beginning hormones
  - ***Know your own risk tolerance and communicate with patient***

Feminizing Hormone Therapy: Initial Evaluation

- Age of patient (over or under 40)
- Smoking status
  - quit if possible prior to hormones, no more than 1 ½ ppd with hormones
- Co-morbid conditions (i.e. DM, lipid, HTN)
  - must be controlled prior to hormones
- Chronic medications
  - Increase K+, hepatic metabolism
- Prior hormone experience
- Any history of blood clots!
- Family history of DM, VTE, CAD, HTN, significant breast, other hormonally mediated cancer

Feminizing Hormone Therapy: Initial Exam

- Full physical exam, including genital and rectal
- Breast exam if development present and over 40 on hormones greater than 5 years
- Baseline breast measurements:
  - midclavicular line vertically down to inframammary fold across largest portion of breast
  - Anterior axillary line horizontally across largest portion of breast to midsternum.
- Measure baseline hips

Feminizing Hormone Therapy: Initial Labs

- Testosterone (total)
- Lipids
- Liver, renal panel
- Glucose
- HgbA1C if diabetes/suspected glucose intolerance
- HIV, Hep B sAB, sAg, cAb (IgG), Hep C, unless **extremely low risk**
- Others as indicated

Absolute Contraindications

- Estrogen
  - Personal history of unprovoked venous thromboembolic events (DVT, PE) or known thrombophilic condition
  - Ischemic cardiovascular disease
  - Cerebrovascular disease (CVA, TIA)
  - Labile/brittle insulin dependent diabetes
  - History of estrogen-dependent tumor
- Spironolactone
  - Moderate to severe chronic kidney disease
  - History of hyperkalemia to K+ sparing medications

Possible Regimens

- Under 40, nonsmoker, healthy
  - Estradiol 2-8 mg daily
  - Spironolactone 100-300 mg daily
- Substitute transdermal estradiol (0.1 to 0.3 mg) if ANY present:
  - Over 40
  - Smoker
  - Chronic medical condition affecting liver, lipids, glucose or vasculature
  - On medications with risk of drug interaction due to hepatic metabolism
- Substitute finasteride (5 mg daily) or dutaseride (0.5 mg daily)
  - If spironolactone contraindicated or not tolerated

Masculinizing Hormone Therapy: Initial Evaluation

- Menstrual status of patient
  - Presence or absence of uterus/ovaries
- Smoking status
- Co-morbid conditions: (i.e. severe acne, DM, lipid, HTN, bipolar/schizoaffective disorders)
  - must be controlled prior to hormones
  - Any gynecological conditions should be evaluated and treated (if needed) prior to hormones
  - Look for PCOS signs/symptoms
- Chronic medications
- Need for contraception
- Prior hormone experience

- Family history of breast or gynecological cancers, CAD, dyslipidemia, DM, HTN, hemachromatosis, significant family history bipolar/schizoaffective disorders

Masculinizing Hormone Therapy: Initial Exam

- Full physical exam, including skin (acne)
- Breast
  - If symptoms, 40 or older or family history of breast cancer
- Pelvic
  - Bimanual exam strongly recommended,
  - Require if symptoms, over 35 and not done within 3 years, family history of gyne cancer
  - Speculum exam (Pap) if:
  - ever sexually active with vaginal penetration (penis, shared sex toys),
  - history of genital warts or cervical dysplasia
  - family history cervical cancer
    - Can defer if all normal prior paps and has had within 3 years

Masculinizing Hormone Therapy: Initial Labs

- Hgb or Hct if postmenopausal
- Lipids
- Liver panel
- Glucose
- HgbA1C if diabetes/suspected glucose intolerance
- HIV, Hep B sAB, sAg, cAb (IgG), Hep C, unless **extremely low risk**
- Others as indicated

Masculinizing Hormone Therapy: Absolute Contraindications

- Breast cancer
- Known polycythemia or hematocrit of 55%
- Be sensitive to relative contraindications:
  - Poorly controlled bipolar/schizoaffective disorders
  - Hyperlipidemia, HTN or DM
  - CAD, CHF
  - Sleep apnea

Possible Regimens

- Testosterone cypionate or enanthate
  - IM 40-60 mg per week
- Topical testosterone gel
  - 5-10 gms per week
  - Preferred drug if co-morbidities (especially psychiatric, HTN, hyperlipid or cardiac)

Conclusions

- The transgender-specific history and exam provides a basis for
  - Appropriate comprehensive primary care
  - Appropriate preventive services
  - Individualized hormone therapy, if desired
- Sensitivity, respect and communication are crucial
- Exam should be based on organs present, not the perceived gender of the patient

Conclusions

- Medical assessment for hormone therapy should address
  - Patient expectations
  - Realistic likelihood of outcomes
  - Individualized short and long term risks
- Minimize controllable risks PRIOR to beginning hormones
- Adjust hormonal medications and doses to minimize remaining risks