Medical Management of Trans & Gender Diverse Patients

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Medical Management of Trans & Gender Diverse Patients

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- Across the Lifespan
- Consultations
- Second Letters
- **Deferral of Puberty**
- **Hormones**
- Pre-op Evalution
- Post-Op Care
- Intentional Referral Network

Today's talk:

- Focus on classically presenting and newly transitioning patient
- PAs can become comfortable providing medically-necessary care
- Significant body of relevant research

Relevant, New Research

- Why Hormones
  - (+) Psychological Functioning (+) QoL
  - (-) Comorbidities … depression
- Why Puberty Blockers -> Hormones
  - (+) depressive symptoms, behavioral issues
  - anxiety and anger persist
- Why Social Transition
  - TG indistinguishable from 2 CG controls

Gender Diversity

- Common
- Culturally-diverse phenomenon
- Normal variation like left-handedness
- Not inherently pathological or negative.

Gender Dysphoria

- **Distress that impedes function**
- **Insistent, Consistent, Persistent**
- Differences of Sexual Development (intersex)
- "GID NOS"
- Psychological Development

TREATMENT GOALS

Improve ***quality of life*** by

- Facilitating transition to physical state that more closely represents the individual's sense of themselves
- Experience puberty congruent with gender
- Prevent unwanted secondary sex characteristics reducing need for future medical interventions
- Avoid depression, risk taking
- Establish early, strong social support

Psychological Development

- Between ages 1 and 2
  - Conscious of physical differences between sexes
- At 3 years old
  - Can label themselves a girl or boy
- By age 4
  - Gender identity stable
  - Recognize gender constant

Learning Objectives

- Demonstrate use and formulations of hormones and hormone blockers
- Describe basic gender affirming procedures
- Identify most well-recognized health disparities

Classic, New Patient Tx Opportunities

- Before Puberty
  - Social Transition (RLE)
- Tanner Stage II
  - Defer Puberty
- Adults
  - Social Transition
  - Hormones
  - Procedures

REFERRAL LETTERS

1. The patient's general identifying characteristics.
2. The initial and evolving gender, sexual and other psychiatric diagnoses. ~~This is to include Axis II diagnosis.~~ Any psychiatric medications MUST be accompanied with a diagnosis. This area should discuss the patient's initial cross-gender feelings.
3. The duration of the author's professional relationship, the type of psychotherapy or evaluation that the patient underwent, frequency of visits & patient compliance.
4. The eligibility criteria that have been met & the author's rationale for hormone therapy/puberty suppression therapy.

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REFERRAL LETTERS

5. The degree to which the patient has followed the SOC to date. The likelihood of future compliance. Main areas of transition should be covered here and should include name change, history of gender presentation at school and home. State all parents/guardians are supportive & willing to sign "consent for treatment", agreed to this approach & will attend initial OV. The author will continue to see the child on a regular basis
6. The author should list their experience in treating TG clients. Include years of experience, number of clients treated and currency of training in transgender issues. List any TG organization memberships and if they are part of a gender team. (http://bit.ly/1nAQbsl)
7. The author welcomes a phone call to verify the fact that the author actually wrote the letter as described in this document.

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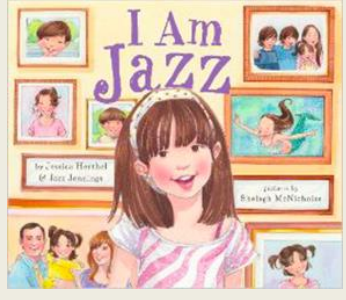
One Possible Approach

- Gender Diversity
- Concurrent Med/MH
- Psychotherapy/Counseling
- Informed Consent
- Real LifeExperience/RLE

Childhood: Ages 2 – Tanner II

- Insistence, Consistence, Persistence
- Family Acceptance -> Resilience
- RLE: social transition



Tanner II-III

- RLE: Social Transition
- Gonadotropin Releasing Hormone (GnRH) Analogs to defer puberty (aka "Puberty Blockers")


Life People

Trans children: facing the outside world

Once trans children and their families come to terms with their gender identity, they have to face an often hostile outside world

Puberty

- Suppression
  - Stage not Age
    - Tanner II-III
  - Duration
    - Controversial
    - 6-24m
  - Follow up Q3m
- Hormone Therapy
  - Initiation
- Provider Competencies

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GnRH Analogs aka Puberty Blockers

- Suspends germ cell maturation
- Suppress FSH, LH
- Initial ↑ LH, FSH followed by desensitized pituitary
- LH FSH secretion suppressed

Dosing

Leuprolide 7.5mg

- Most common uses
- Injected **monthly**
- If the gonadal axis is not completely suppressed, the frequency should be shortened.
- $800-$1500/month
- Clinical protocol: Endocrine Society (table)

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Dosing

Histrelin 50mg

- A very small device “pellet”, slow release
- Implanted under the upper arm skin (SC)
- Office visit, local anesthesia
- Replaced **yearly**
- $15k + procedure/year

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UNDESIRABLE EFFECTS

Less Common
- Anaphylaxis
- Seizures w or w/o hx
- Pituitary Infarct
- Behavioral Changes
- Depression
- Psychosis

Most Common
- Puberty Flare
- Sensitivity to Sun
- Injection site reactions
- H/A, moodiness, hot flashes

OTHER EFFECTS

- Bone mineral density reduced
  - Reversible once hormones initiated
- Height reduction (MTF) if started early
  - Not necessarily bad thing
  - Negligible impact on height for FTMs
- Lack of 2^{ndary} sex characteristics compared to peers
- Expense

MONITORING

- Monitor Q3Months
  - Anthropometry (ht, wt, sitting height & tanner stage)
  - LH, FSH, estradiol/testosterone
- Monitor Annually
  - Renal & LFT, lipids, glucose, insulin, HgbA1C
  - Bone density via dual-energy x-ray absorptiometry
  - Bone age on x-ray of the left hand

What Not To Do

DON'T

- Interview only w/parent in room
- Assume name or pronoun
- Assume gender identity & expression correlate
- Disclose without patient's consent
- Dismiss parents as a source of support
- Dismiss as a phase
- Refer for reparative therapy

Masculinizing ->

BEGINNING HORMONE Tx

- Establish commitment to next steps
  - Gender incongruency
  - Readiness for transition
  - Expectations, goals
  - Management plan
- Obtain informed consent
- Order baseline labs
- Establish follow up

Letter from mental health professional?

MASCULINIZING -> BASELINE LABS

- H&H
- AST/ALT
- Fasting Lipids
- Electrolytes,
- BUN/CR
- Fasting Glucose
- Estradoil
- Testosterone

MASCULINIZING Rx

Testosterone cypionate
200 mg IM q2 weeks or
100mg weekly
or
Testosterone enanthate
200 mg IM q2 weeks or
100mg weekly
or
Topical gel daily

+ Aspirin 81 mg daily
(if over age 40)


births

A RETRACTION - BOGERT-

In 1995 we announced the arrival of our sprogget, Elizabeth Anne, as our daughter. He informs us that we were mistaken. Oops! Our bad. We would now like to present , our wonderful son - Kal Bogert.

Loving you is the easiest thing in the world. Tidy your room.

DOSAGE ADJUSTMENTS

- Post-oophorectomy – reduce dose
- Lifelong maintenance Rx

RELATIVE CONTRAINDICATIONS

- Hyperlipidemia
- Significant liver disease
- Uncontrolled hypertension
- Uncontrolled diabetes
- Desired fertility
- Untreated or treatment resistant depression
- Migraine headache
- Obesity
- Erythrocytosis (increased red blood cells)
- History of coagulopathy, DVT, PE
- Acne
- SMOKING

ABSOLUTE CONTRAINDICATION

- Pregnancy

ROS

- Headache
- Vision change
- N/V
- CP
- SOB
- Swelling hands or feet
- Rash
- Fever
- Bruising/bleeding
- Vaginal Discharge or bleeding
- ~~Discharge from Breasts~~
- ~~Spontaneous Genital Activity~~
- ~~Volume, color and thickness of ejaculate~~

DESIRABLE EFFECTS (T)

- Growth & coarseness of body & facial hair
- Deepening of voice
- Increased muscle mass
- Clitoromegaly (4-5cm)
- Cessation of Menses +/- Infertility
- Breast Atrophy
- Redistribution of fat

UNDESIRABLE EFFECTS (T)

- Acne
- Weight increase >10%
- Male Pattern Baldness
- Hepatotoxicity
- TG ↑ HDL ↓ LDL
- Polycythemia
- Sleep apnea
- Decreased BMD
- Ovarian Cancer
- Insulin Resistance
- Increased homocysteine
- Death

CONSIDERATIONS

- Rogaine to treat pattern baldness
- Estrogen vaginal cream for atrophy
- Retinoids for acne
- Progestin for menses
  - Spotting may occur for several months followed by amenorrhea

At Every Visit

- Assess for desired and adverse effects of medication with directed physical exam & ROS
- Discuss patient's goals and expectations
- Review side effects & risks from Rx

Feminizing ->

Baseline Labs

Feminizing Hormone Therapy

- CBC
- LFTs
- Fasting Lipids
- Fasting Glucose
- BUN/CR
- Estradiol
- Testosterone
- Prolactin

FEMINIZING Rx

- Estradiol 2- 4 mg, SL, PO twice a day (maximum = 8 mg/d) ($4/walmart)
- Estradiol cypionate or valerate injection 5-20mg every 2weeks, 40mg unusual
- Estrogen transdermal, patches, gel, or spray mist

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FEMINIZING Rx

CONTRAINDICATIONS

- estrogen dependent cancer
- hx of thromboembolism or severe thrombophlebitis

PRECAUTIONS

- Hyperlipidemia
- diabetes
- tobacco use
- hepatitis, liver disease,
- renal insufficiency,
- migraine,
- seizure disorder,
- retinopathy,
- obesity,
- CAD, and other cardiac-related issues

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DESIRABLE EFFECTS (E)

- Gynecomastia
- Enlarged areola and nipple
- Softened skin
- Reduced testicular volume
- Redistribution of body fat
- suppression of testosterone production to female levels
- Calming effect
- Decreased hair growth

UNDESIRABLE EFFECTS (E)

- Stroke, DVT/PE, other thromboembolism (1%)
- Cholelithiasis (=natal F)
- Liver toxicity, hepatitis
- Elevated Prolactin (more common)
- Pituitary adenoma
- Depression (24% -> 3%)
- Decrease in hemoglobin
- Prostate Cancer *
- Insulin Resistance

ANTI-ANDROGENS

- Desirable? Undesirable?
- Subjective dosing schedule
- D/C after orchiectomy

SPIRONOLACTONE

- Unless renal disease, ↑ K, or symptomatic
- Begin at 25-50 BID and adjust dose. May increase to 100mg TID

FINASTERIDE

- Begin at 1mg, adjust to 5mg

FLUTAMIDE

SPIRONOLACTONE

- Possible side effects
  - mild diuresis,ataxia; gastric ulcer; GI upset; headache; hirsutism; hyperkalemia; hyponatremia; hypotension; mood changes; impotence
- Drug Interactions
  - avoid use with digoxin, ACE inhibitors, and K-sparing diuretics

ROS

- Headache
- Vision change
- N/V
- CP
- SOB
- Swelling hands or feet
- Rash
- Fever,
- Bruising/bleeding,
- ~~Vaginal Discharge or bleeding~~
- Discharge from Breasts
- Spontaneous Genital Activity
- Volume, color and thickness of ejaculate

FOLLOW UP

Q 3 months
- Testosterone level at 1 yr
  Goal ⟹ < 50 ng/dl
- Lytes if spironolactone

Q 6 months for PE, labs

Annual
- Prolactin

HEALTH DISPARITIES

5 Major Trans Health Issues

- Access to Healthcare
- Access to Healthcare
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- Access to Healthcare

5 Major Trans Health Issues

- Access to Healthcare
- Violence
- Depression
- HIV / AIDS and STD Prevention and Treatment
- Substance Abuse Prevention and Treatment

SOCIAL DETERMINANTS

- Loss of parental & familial support
  - Loss of housing, emotional & financial care
- Lack of health care
  - Loss of insurance/ability to pay
  - Access, availability of health providers
  - Concerns re confidentiality, rights to care
- Social stigma
  - Hostile or violent social environments
  - Mental health sequelae

HEALTH DISPARITIES

- BROWN 5135/15,405
- GRANT 6450/USDHHS

Procedures ->

Gender Affirming Surgeries (GRS)

- Must be 18 years
- 1 year RLE
- 1 year counseling
- 2 letters
- NOTE: Cosmetic surgery may or may not require above

GENDER AFFIRMING PROCEDURES

MASCULINIZING

- Chest reconstruction – B/L mastectomy w/nipple graft vs keyhole reduction
- TAH / BSO
- Vaginectomy
- Metaoidoplasty
- Phalloplasty – radial arm, free flap
- Scrotoplasty
- Urethroplasty
- FERTILITY??

FEMINIZING

- Breast implants
- Orchiectomy/penectomy
- Vaginoplasty
- Facial feminizing
- Vocal cord surgery
- Plastic surgery (waist, hip, buttocks)
- Rib removal (11–12)
- ELECTROLYSIS!!!
- FERTILITY??

CHEST SURGERY FTM

Questions?

National Provider Resources

Transhealth Provider Directories

- GLMA (formerly the Gay and Lesbian Medical Association) www.glma.org (all)
- World Professional Association for Transgender Health www.wpath.org (members only)
- RadRemedy www.radremedy.org (all)

Clinical Resources

- Endocrine Society www.endocrine.org
- WPATH www.wpath.org *22 pgs of references
- Center of Excellence for Transgender Health http://transhealth.ucsf.edu