



2007
Valley AIDS Update



HIV and Transgender Medicine



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Transgender Medicine: **OUTLINE**

- Transgender “Definitions”
- Barriers to Care
- Transgender People and HIV
- Hormone Treatment and Management
- Special Treatment Considerations
- Resources



Transgender “Definition”

- A person born with the genetic traits of one gender ~ but the internalized identity of another gender
- The term may not be universally accepted. Multiple terms exist that vary based on culture, age, and class

Transgender Terminology



MTF: Male **T**o **F**emale
Born male, living as a female
Transgender woman



FTM: Female **T**o **M**ale
Born female, living as a male
Transgender man

Pre-Op or Post Op:
Gender confirmation surgery



Diagnostic Codes

- **DSM-IV:** **Gender Identity Disorder**

- **ICD-9:** **Gender Disorder, NOS**
Hypogonadism
Endocrine Disorder, NOS



DSM-IV: Gender Identity Disorder

- A strong and persistent cross-gender identification
- Manifested by symptoms such as the desire to be and be treated as the other sex, frequent passing as the other sex, the conviction that he or she has the typical feelings and reactions of the other sex
- Persistent discomfort with his or her sex or sense of inappropriateness in the gender role



DSM-IV: Gender Identity Disorder

- The disturbance is not concurrent with a physical intersex condition
- The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning
- NOT a mental illness
- Cannot be objectively proven or confirmed

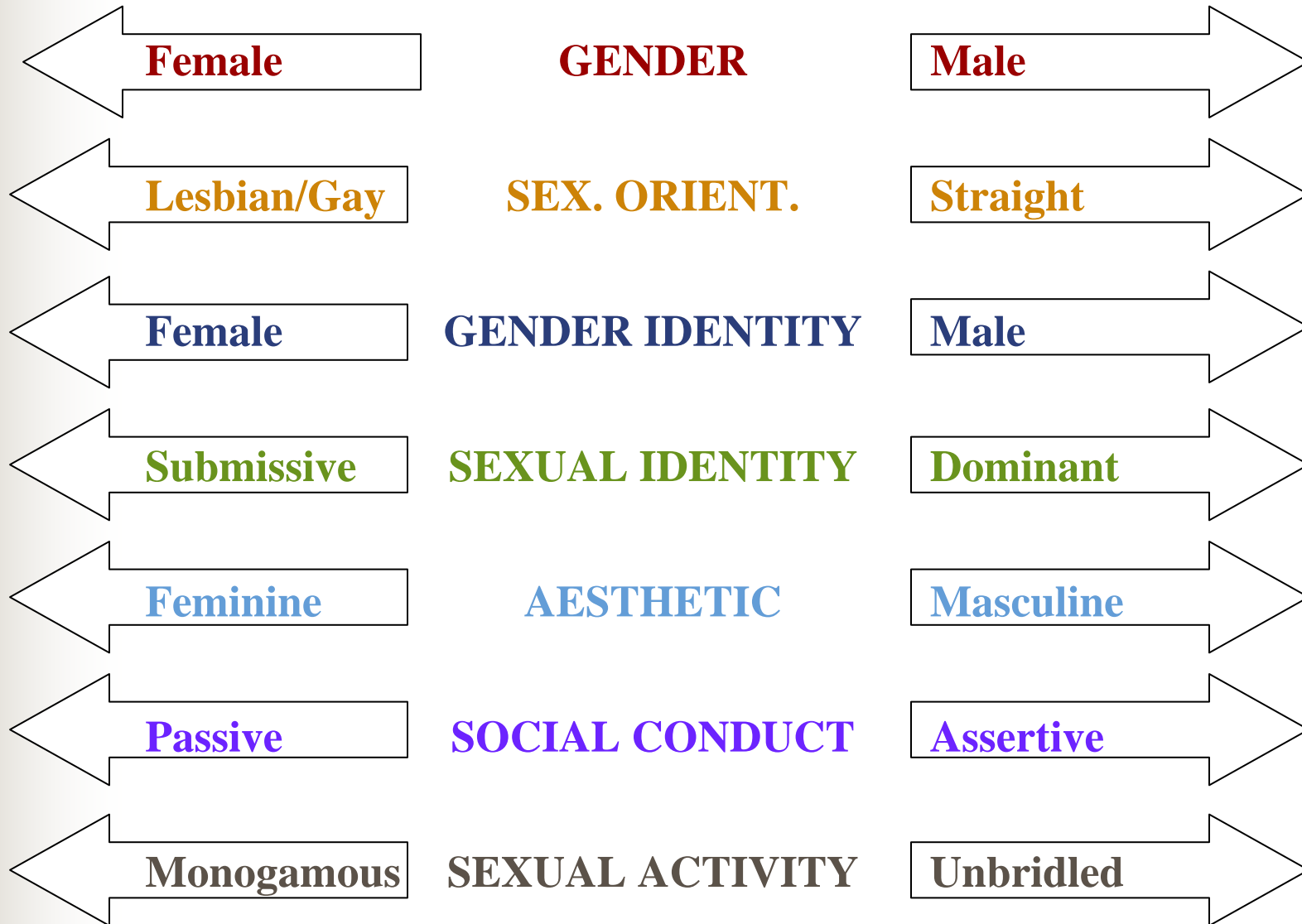


The ICD-10 (F64)

1. 1. The desire to live and be accepted as a member of the opposite sex, usually accompanied by the wish to make his or her body as congruent as possible with the preferred sex through surgery and hormone treatment
2. 2. The transsexual identity has been present persistently for at least two years;
3. 3. The disorder is **NOT** a symptom of another mental disorder or a chromosomal abnormality



GENDER AND SEXUAL EXPRESSION







Barriers to Medical Care

- Geographic Isolation
- Social Isolation
- Fear of Exposure / Avoidance
- Denial of Insurance Coverage
- Stigma of Gender Clinics
- Lack of Clinical Research
Medical Literature



Barriers to Care and Prevention

- **Discrimination**
 - Real or perceived in medical settings
- **Poverty / Competing Priorities**
- **Substance use/Mental Illness**

***PROVIDER IGNORANCE
LIMITS ACCESS TO CARE!!***



Epidemiology

- “Transsexuality” estimated prevalence:
 - MTF = 1:13-15,000; FTM = 1:30,000
 - Netherlands = 1:12,000 males, 1:30,000 females
 - Belgium = 1:13,000, 1:34,000



Increasing Urban Transgenders

- Due to:
 - Natural migration from smaller communities
 - Earlier awareness and self-identity as transgender



Urban Transgenders

Studies have demonstrated that transgender wo/men are at especially high risk for:

- Poverty
- HIV Disease
- Addiction
- Incarceration
- Sex work



HIV prevalence (MTF)

- San Francisco* urban sample 35% Clements-Nolle 2001
- Rome prostitutes 38.2% Spizzichino 2001
- Los Angeles 22% Simon 2000
- Jakarta sex workers 22% Pisani 2004
 - Much higher than: fe/male sex workers, or MSM's
- Tel Aviv prostitutes 11% Modan 1992
 - Much higher than female prostitutes “working side by side”



HIV Prevalence

- * San Francisco details: 1997
 - MTF 137/392 (35%) HIV+
 - 65% aware of status prior to study, 20% learned their status through study, 15% failed to return
 - 50% were not receiving HIV related medical care
 - 65/104 (63%) African Americans HIV+
 - FTM 2/123 (2%) HIV+
- FTM unaware of risks and prevention needs
 - FTM rate of unprotected RAI higher than MTF rate in 1 study Kenagy, 2005, AIDS Care



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THE STANDARDS OF CARE FOR GENDER IDENTITY DISORDERS - Sixth Version 2001

World Profess. Assoc. for Transgender Health (WPATH) / aka
Harry Benjamin International Gender Dysphoria Association (HBIGDA)

ELIGIBILITY CRITERIA FOR HORMONE THERAPY

1. Age 18 years
2. Knowledge of hormones medical and their social effects and risks
3. Documented real-life **experience** of at least three months
~ *OR* ~
Psychotherapy (usually a minimum of three months)



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READINESS CRITERIA FOR HORMONE THERAPY

1. Further consolidation of gender **identity** during the real-life experience or psychotherapy
2. Made some progress in mastering other identified problems -> improving or stable **mental health**
3. Hormones therapy likely to be taken in a **responsibly**



“Real Life Experience” (HBIGDA)

- Employment, student, volunteer
- New legal gender-appropriate first name
- Documentation that persons other than the therapist know the patient in their new gender role



Tom Waddell Approach

1. Psychosocial evaluation
 2. Acceptance of Transgender Spectrum
 - Not “binary” concept of gender
 3. Informed consent
 4. Engagement in Primary Care and willingness to address general health issues
- Website for protocols:
- <http://www.dph.sf.ca.us/chn/HlthCtrs/HlthCtrDocs/TransGendprotocols122006.pdf>



Access to Cross-Gender Hormone Therapy Can:

- Improve adherence to treatment of chronic illness (**e.g. HIV!**)
- Increase opportunities for preventive health care (**e.g. HIV!**)
- Improve self-esteem
 - Assess/prevent depression & violence
- Prevent suffering and risk-taking (**e.g. HIV!**)



Initial Visits

- Review history of gender experience
- Document prior hormone experience
- Review patient goals for transition
- Address safety concerns
- Assess social support system
- Assess readiness for gender transition
- Physical exam – problem oriented only



Hormone Therapy

- Heredity limits tissue response to hormones
 - More is not always better
- HIV and gender hormone therapy:
 - No significant drug interactions / toxicities
 - Estrogen levels changed by some PI's
 - No contraindications to gender hormone therapy at any stage of HIV disease



Male To Female Treatment Options

- No hormones
- Estrogens
- Anti-androgens
- Progesterones



Estrogens

- **Conjugated Estrogens (e.g. premarin)**
 - 1.25 – 10.0 mg daily (or divided doses)
- **Ethinyl Estradiol**
 - 0.1 – 1.0 mg daily
- **Estradiol**
 - 1.0 – 5.0 mg daily
- **Estradiol Patch**
 - 0.1 – 0.3 mg every 3-7 days
- **Estradiol Valerate Injection**
 - 20-60 mg IM every 2 weeks



Estrogen Therapy Effects

- Breast Development
- Redistribution of body fat
- Softening of skin
- Loss of erections
- Testicular atrophy
- Decreased upper body strength
- Slowing of scalp hair loss





Estrogen Therapy Risks

- Blood clots (PO Rx):
 - *Quit smoking, add ASA daily (esp. @ >40 yr)*
 - *Minimize maintenance dose*
- Hypertriglyceridemia (PO Rx)
- Weight gain
- Decreased libido (*Rx testosterone prn*)
- Elevated blood pressure
- Decreased glucose tolerance
- Gallbladder disease
- Benign pituitary prolactinoma ? (rare)
- Breast cancer ?



Anti-androgen Therapy

- **Spironolactone**
 - 50-150 mg PO twice daily
 - *Anti-hypertensive, potassium retention*

- **Propecia / Proscar or Avodart**
 - Male-pattern baldness / BPH treatment



Anti-androgen: Benefits & Risks

- Modest breast development (gynecomastia)
- Softening / reduced facial and body hair
- Reduced male-pattern baldness
(thicker scalp hair)
- Treatment of BPH



Drug Interactions

Ethinyl / Estradiol levels are **INCREASED** by:

Nefazodone

Fluvoxamine

Indinavir

Sertraline

Diltiazem

Cimetidine

Itraconazole

Fluconazole

Clarithromycin

Grapefruit

Amprenavir

Atazanavir

Isoniazid

Fluoxetine

Efavirenz

Paroxetine

Verapamil

Astemizole

Ketoconazole

Miconazole

Erythromycin

Triacetyloleandomycin

Fosamprenavir

Drug	Trade Name	Interaction
Non-Nucleoside Reverse Transcriptase Inhibitors		
Delavirdine	<i>Rescriptor</i>	Levels of ethinyl estradiol may increase. Clinical significance is unknown.
Efavirenz	<i>Sustiva</i>	Ethinyl estradiol levels increase 37%. No data on other component.
Nevirapine	<i>Viramune</i>	Ethinyl estradiol levels decrease approximately 20%.
Protease Inhibitors		
Amprenavir	<i>Agenerase</i>	An increase in Ethinyl estradiol and norethindrone levels occurred with amprenavir, and amprenavir levels decrease 20%.
Atazanavir	<i>Reyataz</i>	Ethinyl estradiol AUC increases 48%; norethindrone AUC increases 110%.
Fosamprenavir	<i>Lexiva</i>	An increase in ethinyl estradiol and norethindrone levels occur with amprenavir, and amprenavir levels decrease 20%.
Indinavir	<i>Crixivan</i>	Levels of ethinylestradiol increase by 24%. Levels of norethindrone increase 26%.
Lopinavir-Ritonavir	<i>Kaletra</i>	Levels of ethinyl estradiol decrease 42%.
Nelfinavir	<i>Viracept</i>	Ethinyl estradiol levels decrease 47%. Norethindrone levels decrease 18%.
Ritonavir	<i>Norvir</i>	Levels of ethinyl estradiol decrease 40%.
Saquinavir (hard gel)	<i>Invirase</i>	Insufficient data.
Tipranavir	<i>Aptivus</i>	Ethinyl estradiol Cmax and AUC decreases by approximately 50%. Women using estrogen may have an increased risk of non-serious rash.



Drug Interactions

Estrogen levels are

DECREASED

INCREASED

- Smoking cigarettes
- Nelfinavir
- Nevirapine
- Ritonavir
- Vitamin C



Screening Labs: **MTFs**

Screening

- CBC
- Lipid profile
- Liver enzymes
- Kidney panel
- Fasting glucose
- Prolactin level
- Testosterone level?

Follow-Up

@ 3, 6, 12mo, & q12mo

- CBC (↓ H/H)
- Lipids (↑ LDL/↓HDL)
- Liver (if on PO Est.)
- Kidney & K⁺ (if spirono.)
- Fasting glucose
- Prolactin (q yr x 3yr)



MTF: Treatment Considerations

- **Post-Castration Testosterone Therapy**
 - Libido
 - Osteoporosis
 - General sense of well-being
- **Hair loss: finasteride, minoxidil**
- **Hgb / Hct: decrease to female range**
- **Hyperpigmentation: hydroquinone 3-4% topical**
- **Hair removal:**
 - Eflornithine cream
 - Electrolysis
 - Laser





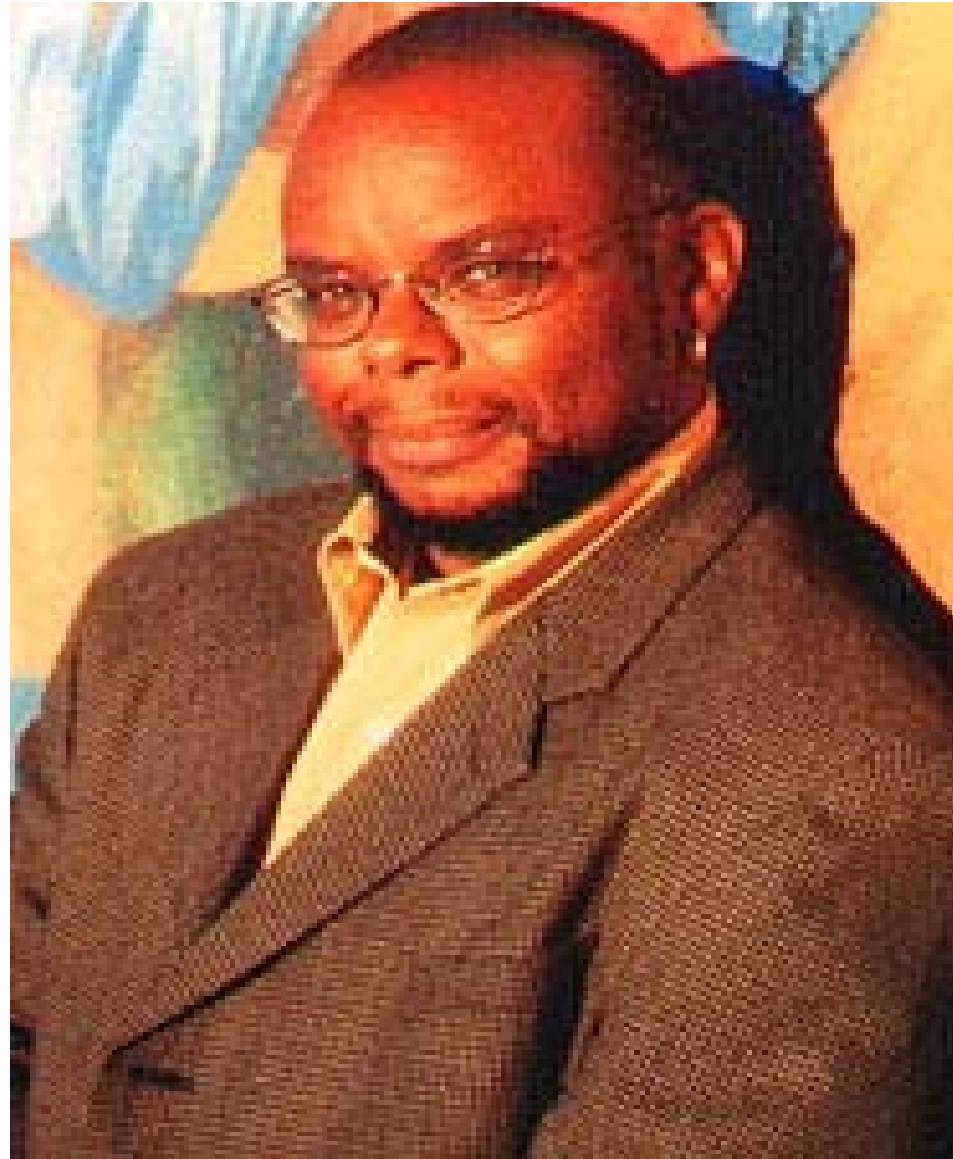
MTF: Treatment Considerations

■ Surgical Options:

- Orchiectomy (castration)
- Vaginoplasty (dilation & lubrication)
- Breast augmentation
- Tracheal shave
- Face reconstruction

■ Health Maintenance:

- Prostate screening?
- SBE & mammograms (after 10+ yrs)
- Silicone injection risks





Female To Male Treatment Options

- No hormones
- Testosterone:
 - Intramuscular: Enanthate or Cypionate
100-200 mg every 2 wks
 - Patches: 2.5-10 mg daily
 - Gel: 50-100 mg daily



Testosterone Therapy: *PERMANENT Changes*

- Increased facial and body hair
- Deeper voice
- Male pattern baldness
- Clitoral enlargement



Testosterone Therapy: *REVERSIBLE* Changes

- Cessation of menses
- Increased libido, changes in sexual behavior
- Increased muscle mass / upper body strength
- Redistribution of fat
- Increased sweating / change in body odor
- Weight gain / fluid retention
- Prominence of veins / coarser skin
- Acne
- Mild breast atrophy
- Emotional changes



Testosterone Therapy *RISKS*

- Lower HDL cholesterol
- Elevated triglycerides
- Increased homocysteine levels
- Liver toxicity (only with PO Rx)
- Polycythemia
- Unknown effects on breast, endometrial, and ovarian tissues
- Potential of sleep apnea



Testosterone Interactions

- Warfarin: ↑ anticoagulant effect
- Propranalol: ↑ clearance / ↓ efficacy
- Blood Glucose: ↓ levels / ↓ medications



FTM: Treatment Considerations

- Clitoral enlargement: testosterone cream
- Vaginal atrophy / incontinence: estrogen vaginal cream
- Hair Loss: minoxidil or finasteride
- Lower dose of testosterone
- Surgery: hysterectomy / oophorectomy / mastectomy (continue SBE) / genital recon. / “queer eye” consult
- Health Maintenance:
 - Pap smears, ovary exams, mammograms



**“Wanting to have
a child
is neither a male
nor female desire,
but a human
desire.”**

Thomas Beatie



- **Wife endometriosis/
hysterectomy 20 yr prior**
- **8 yr s/p last menses**
- **4 mo s/p d/c bimonthly
IM testosterone**
- **No estrogen or fertility
treatments**
- **Home artificial
insemination**
- **1st pregnancy ectopic
triplets**
- **2nd pregnancy due 7/08**



Lab Monitoring: **FTMs**

Screening

- CBC
- Lipid profile
- Liver enzymes
- Kidney panel
- Fasting glucose

Follow-Up

@ 3mo & q6-12mo

- CBC (↑ H/H)
- Lipids (↑ LDL/↓HDL)



Follow-Up Care: **MTF & FTM**

- Status / satisfaction w/ physical changes
- Monitor medication / hormone / drug use
- Assess patient comfort with transition
- Assess psycho/social impact of transition
- Discuss mood cycles
- Counsel regarding sexual activity / prevention
- Discuss legal issues / name change
- Discuss relationship / violence / fertility issues
- Beauty tips



Transgender Care Etiquette

- Using appropriate pronouns and **language**
 - Ask straightforwardly what patient prefers if unsure
 - Change chart names and gender and or train front office staff
 - Avoid terms pre-op/post-op, confusing and assumes surgery is norm
- **Acknowledge** “years of isolation and struggle”
 - Daily stress of living in a stigmatized and marginalized status
 - Recognition of this in patient care has been reported to be more important than “transgender expertise” Lombardi 2001



Transgender Care Etiquette

- Be **mindful** in physical exam of previous trauma and abuse
 - Avoid genital and rectal exams on 1st visit if possible
- Unisex **bathrooms** are preferred solution to BR problems



Resources

- Website for protocols:
 - <http://www.dph.sf.ca.us/chn/HlthCtrs/HlthCtrDocs/TransGendprotocols122006.pdf>
- TG “Expert”: Lori Kohler MD
 - <http://hivinsite.ucsf.edu/InSite?page=cftgcare-09-00>
 - Email: lkohler@fcm.ucsf.edu
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