Beyond Gender: The Basics of Transgender Care and Parenting and Pregnancy Planning for LGBTQ Patients

Satellite Conference and Live Webcast Friday, November 18, 2016 1:00 – 3:00 p.m. Central Time

Produced by the Alabama Department of Public Health Distance Learning and Telehealth Division

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Disclosures









All medications for transgender care are off-label using national and international guidelines

Objectives

- Define current and gender affirmative terminology
- Distinguish the difference between sex and gender
- Discuss how to create safe space for LGBTQ clients in your healthcare setting using best practices

Objectives

- Describe the basics of gender affirmative medical care, including hormone treatment, basics of surgery and preventive care
- Know four online resources for providing gender affirmative care
- Identify strategies of pregnancy prevention for LGBTQ clients

Objectives

- Differentiate pathways to parenting and pregnancy within the LGBTQ community
- Describe the basics of care for transgender youth, including puberty blockers

Sex and Gender Minorities



- Federally protected status
- ACA expanded coverage
 Gender Non Discrimination





Sex and Gender Basics

• Sex



- Assigned male or female based on physical anatomy, chromosomes
- Gender Identity



- Internal, deeply felt sense of self as male to female or in between
- Gender Expression -



 The external presentation as masculine or feminine or somewhere in between - how we wear our gender

Sexual Orientation



Includes:

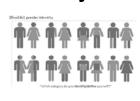
- Attraction
- Behavior
- Sexual Identity

Sexual Identity: Lesbian, Gay, Same Gender Loving, Bisexual, Heterosexual, Asexual, Pansexual, Queer ≠ who I actually have sex with (choice of partner/s)

Sexual Behavior: choice of sexual partners & Polyamory, Monagamy, Bipoly

Sexual Orientation Gender Identity



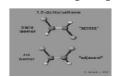


- · Erotic attraction "who I go to bed with"
- Where as gender identity is "who I go to bed as"

Gender Terminology

CISGENDER:

Identity congruent with assigned gender



STEALTH:

trans status not shared with others

Trans* Terminology



- · Trans Man / Trans masculine
 - FTM Female-to-Male (might be on testosterone)
 - Assigned Female at Birth (AFAB)
- Trans Woman / Trans feminine
 - MTF Male-to-Female (might be on estrogen)
 - Assigned Male at Birth (AMAB)

Trans* Terminology

Gender Queer

- Range of identities which lie outside binary of male and female
- -can also refer to sexuality



Language is always

evolving

The Gender Spectrum Gender Queer

- OUT OF THE BINARY
 - -Gender Smoothie
 - -Gender Bender / Gender Blender
 - Demi Gender
 - -Pan Gender
 - -Two Spirit
 - -Tri Gender



The Gender Spectrum Gender Queer

- Neutrosis
- Demigirl
- -LadiBoi
- -Androgyne
- -Agender
- Patients may request Gender Neutral Pronouns!
 - -They, hir, zir

Challenges and Discrimination

- A Report of the National Transgender Discrimination Survey in US (Grant, Mottet & Tanis, 2011)
 - Discrimination pervasive in education, employment housing, health care, public accommodations



Challenges and Discrimination

- -4 times more likely to have a household income < \$10K</p>
- -4 times the national rate of HIV
- -41% attempted suicide compared to1.6% of general population



Access to Healthcare

- -19% refused care outright
- -50% had to TEACH their own provider about basic trans* health
- -28% deferred care when sick or injured
- -48% deferred care due to inability to pay for care



Intersectionality

Interconnected bio, social and cultural categories and axes of identity



Intersections of oppression discrimination

Kimberlé Crenshaw



Health Care Reform



- · ACA Medicaid Expansion
- Many more LGBTQ, gender non-binary and gender creative people able to get care
- Section 1557 of ACA prohibits discrimination based on gender identity or expression health in care setting that receives funding from HHS

Creating a Safe Health Center

Many patients have experienced trauma in health care settings

- · Create safe and welcoming space
 - -Involve your community groups
 - Inclusive language and visuals (posters, magazines)
 - -Gender neutral bathrooms

Creating a Safe Health Center

- · Inclusive forms / EHR
 - Names and pronouns (legal and current)
 - "What pronoun do you use (today)?"
 - Spectrum of gender and sexuality options
 - Documenting histories, exams, inclusive templates

Creating a Safe Health Center

- Train your entire staff on sex and gender spectrum
 - –10 Tips for Serving Transgender Patients
 - National LGBT Health Education Center (training resources)







Meaningful Use 3: Sexual Orientation and Gender Identity (SOGI)

Two Step Model for Intake:



- 1. What is your current gender identity?
 M, F, trans man, trans woman, gender
 queer,_____, decline to state
- 2. What sex were you assigned at birth?

 M, F, Intersex, _____, decline to state

CDC has adopted and recommends this model. More information: www.transhealth.ucsf.edu

Electronic Medical Record issues challenging

Gender Affirmative Model

- · Explore your own gender
- Strive to see the person in front of you in their gender of identity, not based on physical attributes or presentation
- You are now a trans ally - key to providing good care



Cultural Humility

... leads us to "Cultural ENGAGEMENT" and RESPECT

key components of "Cultural Competency"

Who is the person in front of you?

Diversity in Transition

- Not all people under the transgender umbrella need or want to transition
- Need not be stereotype (Ken to Barbie)
- Transition varies; no one way to transition
- · More and more out of the binary
- Increasing congruity between selfperception and external presentation
- · Takes time: identity may evolve

Transition

- Psychological Transition
 - Adjusting to changes in thinking, emotions, behavior, and relationships resulting from mental shift of accepting one's gender identity



Transition

- Social Transition
 - -Coming out to people in your life as transgender, letting people know that you identify as male / female / other, letting people know that you have a new name, etc.

Transition

- · Legal Transition
 - Changing the name and gender on identity documents
 - Birth Certificate, Driver's License,
 Passport, Social Security, etc.
- Medical and Surgical Transition
 - Accessing transition related health treatments: hormone therapy, surgery

Overview of Hormones



Trans* female spectrum:

Rx to feminize, overcome testosterone **ESTROGEN:** IM, patch, cream, or oral 17 B estradiol NOT ethinyl estradiol **ANTI-ANDROGEN:** spironolactone,

finasteride

PROGESTERONE: not always used **AIM FOR PHYSIOLOGIC LEVELS** or

desired physical response

Overview of Hormones

Trans* male spectrum:

Rx to masculinize

TESTOSTERONE:

IM, subcutaneous gel, patch, pellet never oral (although used in Europe)

 AIM FOR PHYSIOLOGIC LEVELS or desired physical response

Most Common Questions Asked...

- But are hormones safe?
 (risk / benefits of treating)
- Are we causing harm by prescribing?
- Evidence points to more harm in NOT treating

Safety / Long Term Health Outcomes

- Summary:
 - -Safe in trans men: no increase in CV events, hormone related cancer, or osteoporosis

Asscheman, et al 2011 A long term follow up study of mortality in transsexuals receiving treatment with cross sex hormones Continuation of the Gooren study: (1975-2006) Eur J Endocrinology Wierckx, K et al 2012 J Sex Med

Safety / Long Term Health Outcomes

Trans women on oral ethinyl estradiol increased CV death and other increased causes of preventable death (suicide, HIV, drug use)

Importance of lifestyle issues: exercise, smoking, drugs

How does Hormone Therapy Improve Health Outcomes?

- · Increased sense of wellbeing
- Decreased depression & suicide
 - Suicidality decreased from 30% to ~3% post tx
- Decreased victimization & homicide
- · Decreased drug & alcohol misuse

How does Hormone Therapy Improve Health Outcomes?

- Decreased HIV risk behaviors
- Decreased homelessness
- Increased access to preventive and primary care services

Guidelines for Trans* Care

- WPATH International Standards of Care (SOC) for the Health of Transsexual, Transgender and Gender Nonconforming People (Version 7 2011)
- Tom Waddell/Lyon Martin/Howard Brown/Callen Lorde/UCSF CoE for Transgender Health
- Guidelines continually revised with collective experience and research; international dialogue about guidelines



Online Resources: Great support to do this care!

- UCSF Center of Excellence for Transgender Health Primary Care Protocol
 - -transhealth.ucsf.edu
- National LGBT Health Education Center: Fenway Boston
 - -Igbthealtheducation.org

Online Resources: Great support to do this care!

 WPATH Standards of Care, 7th Version - wpath.org



- Lyon-Martin Health Center
 Consult Line
 - project-health.org/transline
- Howard Brown Health Center, Chicago
 - -howardbrown.org

Trans* feminine





HORMONAL THERAPY

Estrogen and anti-androgen, progesterone

Feminization, a slow process... What are the patient's goals?

(Genetics play a role)

Feminizing Effects Take TIME - Months to Years

- √ Skin softens
- ✓ Decreased hair growth
- ✓ Muscle mass diminishes, fat redistributes to hips
- ✓ Breast development:
 - Unpredictable / genetics are not predictors
 - -Permanent develop

Feminizing Effects Take TIME - Months to Years

Maximum effect usually after 2-3 years

- √ Sexuality: (typical but not universal)
 - Decrease in libido, ejaculate, spontaneous erections
- √ Testicular Atrophy
- ✓ Emotional changes noted by many
 - Easier access to tears, feelings, multi-tasking

Informed Consent – Estrogen and Spironolactone

Being aware of rare risks in context of benefits

- Blood Clots (rare)
- · Liver / Gallbladder (rare)
- · High Prolactin (rare)
- Weight gain
- Increase BP (more common – treat as with COC)
- · Risks of Spironolactone: high K, low BP

Limitations of Feminizing Hormones

- Feminizing Hormones CANNOT:
 - Thin thickened vocal cords to increase pitch of voice
 - Change shape, size or structure of bones
 - -Reduce or eliminate Adam's apple
 - Eliminate facial hair follicles

Limitations of Feminizing Hormones

 THUS the interest and importance of blockers for youth to prevent these secondary sex changes



Trans* Masculine Testosterone

- · Intramuscular, subcutaneous, topical
- · What are patient's goals?





Effects of Masculinizing Hormones Effects Depend on Dose, Route, Genetics

Action	Onset	Max
Male pattern facial/body hair	6–12 mo	4-5+ yrs
Acne	1-6 mo	1-2 yrs
Voice deepening	1-3 mo	1-2 yrs
Clitoromegaly	3–6 mo	1-2 yrs
Vaginal atrophy	2-6 mo	1-2 yrs
Amenorrhea	2–6 mo	
Emotional changes/ ↑ libido		
Increased muscle mass	6–12 mo	2-5+ yrs
Fat distribution	1–6 mo	2–5+ yrs 2–5 yrs

Informed Consent: Reversibility

- Irreversible
 - Thickening of vocal chords
 - Facial and body hair
 - Adam's apple
 - Male-pattern balding

Informed Consent: Reversibility

- · Somewhat Reversible
 - Clitoral enlargement
- Reversible
 - Menses
 - Libido
 - Fat / muscle distribution

Informed Consent: Discuss Risks

- · Weight gain
- · Male pattern baldness
- · RBC increase
- · Acne vulgaris
- Mood changes
- Increase in LDL

Informed Consent: Discuss Risks

- Liver dysfunction (extremely rare)
- · Possible blood pressure increase
- Teratogen

Pregnancy and Testosterone

- Testosterone does NOT prevent ovulation
 - -Discuss contraception
- Testosterone MAY affect fertility
 - -Discuss egg banking
- Testosterone IS excreted into breast milk



Additional Considerations

- Binding
 - Prolonged binding can cause skin irritation / breakdown, breast pain, fungal infection





- Screening is based on anatomy
- If you have one, screen it!



Well Person Care

- Primary care provider who is willing to learn and CARES
- Awareness of Trauma and Trauma Informed Care
- Discuss Sexuality, Fertility,
 Pregnancy and Parenting Planning

Preventive Screening

This is not too complicated!

If you have 'an organ,' it must be screened according to current guidelines...

(of course, EHR and insurance may not agree that a 'male' needs a PAP...)

USPTF Cancer Risk and Screening

- Breast
 - -Trans Man
 (no mammogram indicated if has had chest surgery)
 - Trans Woman (no data, but later exposure to estrogen changes risk and onset of screening; at least 5-10 yrs on HT)

USPTF Cancer Risk and Screening

- Cervix and Anus- PAP intervals same if on hormones
- Ovarian and Uterus
 - No data to support increase in cancer risk with testosterone
- Prostate same guidelines if on estrogen

Referrals

- **Contact** the office ahead of time to ensure respect for name, gender, trans status
- **Discuss** with radiology tech ahead of time so that there is respect and understanding
- **Strategize** with patient about how to handle inappropriate care





Surgery: Every Person Decides Which (If Any)

- Trans* female spectrum:
 - Orchiectomy: removal of testicles
 - Vaginoplasty: creation of vagina
 - Labioplasty: creation of labia
 - Breast augmentation
 - Facial feminization
 - Tracheal shave (removal of Adam's apple)



Surgery: Every Person Decides Which (If Any)

- Trans* male spectrum:
 - Chest reconstruction surgery
 - Hysterectomy, oophorectomy
 - Metoidioplasty (penis and testicles with local tissue)
 - Phalloplasty (penis and testicles with grafting)



Silicone

Significance of Silicone

 Trans men: pectoral, gluteal and calf areas



- Trans women: lips, cheekbones, thighs, hips, breasts
- "Pumping Parties" becoming more common



Silicone

- · Risks:
 - -Local and systemic infection
 - -Embolization (PE can be fatal)
 - -Granuloma
 - Systemic inflammatory syndrome that can be fatal

Sexuality and Gender

- Sexual identities, attractions, and behaviors may shift, change, or evolve with transition
- 40% of 605 trans men recruited online from 19 different countries who had begun using testosterone reported a shift in their sexual orientation (Meier 2013)

Conversations About Sexuality
Find Comfortable
and Inclusive Language

Safer Sex

- · What does this look like?
- · How do we talk about sex?
- Sharing fluids? Sperm? Ovulation?
- Open minds, open hearts, open discussions

Prevention of HIV Trans* Community

- Increased awareness has led to data collection recommendations so that trans population will be counted
- We now have trans specific interventions with increased awareness of high risk and specific needs

Prevention of HIV Trans* Community

- · PREP AND PEP are lifesaving
- Strategies that you can integrate into your work with the transgender populations you serve
- Trans youth have the highest rate of HIV acquisition

Conversations About Sexuality

- · Gender neutral language
 - -"What are the gender identities of your sexual partners?"
- Direct questions on specific sexual activities:
 - -"Knowing about your sexuality can help me take better care of you"

Conversations About Sexuality

- "Do you have sex with someone with ovaries / testes?"
- -"What parts of your body do you use when you are sexual?"

Family Creation Options

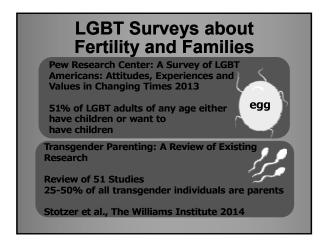
 Historically, LGBTQ individuals' reproductive choices have not been recognized...

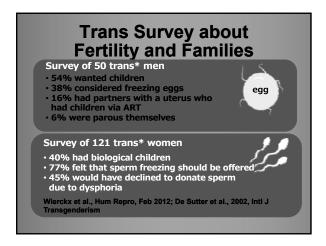


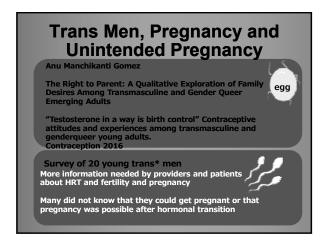


Family Creation Options

- "...it was assumed that trans women would forgo the ability to 'father' a child, that trans men would forgo the ability to 'mother' a child, and that 'true transexuals' would be uninterested in doing so"
 - "Family Creation Options for Transgender and Nonconforming People," I dickey, K Duchamps, R Ehrbar, Psychology of Sexual Orientation and Gender Diversity 2016







Family Planning Pregnancy and LGBTQ

 "Are you or any of your sensual or sexual partners planning to get pregnant in the next 12 months?





 Does your patient feel safe to share and answer openly?

Pregnancy Prevention and LGBTQ

- "Are you or any of your sensual or sexual partners planning to get pregnant in the next 12 months?
- NO:
 - Pregnancy prevention programs
 MUST SPECIFICALLY ADDRESS
 LGBTQ identities and issues to be effective!

Pregnancy Prevention and LGBTQ Youth

- LGBTQ youth use contraception less frequently
- Currently, LGBTQ youth at increased risk of unintended pregnancy or involvement with pregnancy

Pregnancy Prevention and Trans*

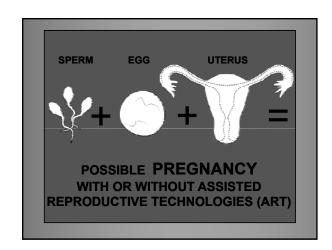
- "Are you or any of your sensual or sexual partners planning to get pregnant in the next 12 months?
- · NO:
 - Testosterone ≠ Contraception: ovulation can occur
 - -Sperm can still be present with estrogen

Pregnancy Prevention and Trans*

- If pregnancy not desired: Discuss contraception
- · For trans men:
 - -IUD, Implant, DMPA,
 - -typically non estrogen based

Pregnancy and LGBTQ

- "Are you or any of your sensual or sexual partners planning to get pregnant in the next 12 months?
- · YES:
 - Does the person you are talking to have ovaries or testes?
 - Discussion of sex/fertility and partner(s)
 - Many family building options and not much research yet



Pathways to Pregnancy → How the Sperm Gets to Egg

- Donor sperm
- Donor egg
- Preservation options:
 - -Freezing of egg or sperm
- IVF / In Vitro Fertilization
- Intravaginal or intracervical insemination

Pathways to Pregnancy → How the Sperm Gets to Egg

- · Intrauterine insemination
- Traditional surrogacy
- Gestational surrogate with egg donor
- Sexual intercourse, planned or unplanned

ISSUES: age, cost, legal rights, parenting contracts, health concerns, privacy, homophobia, internalized homophobia, transphobia

Family Building Options

- Pregnancy: self, partner / spouse / surrogate / with or without Assisted Reproductive Technologies (ART)
- · Adoption- public, private
- · Extended families, step children
- · Foster children
- · Single parenting
- · Blended families
- · Chosen families



Fertility Options for LGBTQ

- · Lesbian Identified where one partner has uterus and ovaries:
 - -Find sperm (friend, relative, donation, purchase)
 - Egg from one, uterus from another
 - -Adoption, Fostering, Assisted Reproduction

Fertility Options for LGBTQ

- · Gay and one partner has sperm
 - Inseminate (friend, relative, surrogacy for uterus, eggs)
 - -Adoption, Fostering, Assisted Reproduction
- · Many ways to make a family

Pregnancy Fertility for Trans*



- Unknown future fertility BUT successes
- consider banking for eggs and sperm (expensive)

Pregnancy Fertility for Trans*



- · Pregnancy in trans men stop testosterone
 - -Oocyte/embryo preservation
 - -Preserve one ovary at time of hysterectomy
 - -Keep ovaries and/or uterus with genital surgery

Pregnancy Fertility for Trans*



- · Viable sperm count in trans women
 - Stop estrogen if desiring fertility
 - Sperm cryopreservation

Barriers for Fertility Preservation for Transgender Patients

- Lack of knowledge about pregnancy and fertility preservation by both providers and patients
- · Invasiveness of procedures
- Expense
- Unknown success of fertility procedures after long term use of hormones

CA Jones, L Reiter, E Greenblatt (2016) Fertility preservation in transgender patients, International Journal of Transgenderism

Trans* Men and Pregnancy

- N = 41
- Used testosterone pre-pregnancy

 649/
- · Median age was 28
- Used own eggs 88%
- Delivered in a hospital 78%

Transgender Men Who Experience Pregnancy After Female-to-Male Gender Transition. AD Light, J Obedin-Maliver, JM Sevelius, JL Kerns, Obstetrics & Gynecology 124 (6), 1120-1127, 2014

Trans* Fertility for Youth

- · Counseling about future fertility
 - Fertility options are limited for youth who start puberty blockers at onset of puberty
 - Parent and child may present different priorities

Trans* Fertility for Youth

Post-pubertal youth have option of fertility

- If have uterus, ovaries can carry or contribute to pregnancy
- If testicles, can contribute sperm

Trans* Fertility for Youth on Puberty Blockers

Pediatric reproductive oncologists harvest pre-pubertal gonadal tissue:

maturing eggs and sperm in-vitro (experimental at this time)

The Gender Journey

- Supporting gender expansive youth
- The child displays distress that is alleviated by expression of gender identity



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But, you can never know for sure and you need to listen to and follow the child.

Diane Ehrensaft, PhD, Developmental Psychologist

What We Know: Family **Acceptance Saves Lives**

- · Higher rates of family rejection = poor outcomes in LGBT kids
 - -8.4x increased attempted suicide
 - -5.9x increased depression
 - -3.4x more likely to use illegal drugs
 - -3.4x more likely to engage in unprotected sex

What We Know: Family **Acceptance Saves Lives**

 Family Acceptance Project shows that LGBT kids do better with even small amounts of acceptance



Ryan, C., Huebner, D. et al. "Family Rejection as a predictor of negative health outcomes in white and Latino lesbian, gay, and bisexual young adults." Pediatrics 123/1 (2009): 346-352.

Key Concepts

- · Gender ≠ choice
- · Gender is a spectrum
- · Acceptance is key to health
- · There are medical interventions that support gender identity
- Pregnancy and Parenting planning are possible for LGBTQ individuals!

Gender Terminology

- Transgender or Trans*: Umbrella term
- People whose gender identity or gender expression is different from the sex











Assigned Sex

- · "Biological sex," chromosomes, anatomy
- · Usually based on external genitalia



Gender Identity

- · A person's internal, deeply felt sense of being male, female, something other or in between
- · Independent of assigned sex: can be fluid





Gender Expression

- · External expression of gender identity, also fluid
- · "How I do gender in the world"



Gender

 The complex interrelationship between an individual's



- -Sex (gender biology)
- -Internal sense of self as male, female, both or neither
- -Outward presentations and behaviors



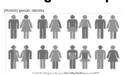
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Sexual Orientation

- · Includes:
 - Attraction
 - Behavior
 - Sexual Identity
- SEPARATE from gender identity and gender expression

Sexual Orientation and Gender Identity

- Erotic attraction "who I go to bed with"
- · Where as gender identity is "who I go to sleep as"





Basic Concepts of Gender Care

- · Genitals do not determine gender
- Gender is on a spectrum rather than being binary: male or female
- Transgender identity is not pathology or mental illness



- · Access to hormones improves health
- · Exploring our own gender journey is central to patient centered care

Building Cultural Fluency Immerse yourself... many more excellent books, blogs, films

- **BOOKS and BLOGS:**
 - Trans Bodies, Trans Selves, Ed. Erickson-Schroth
 - The Gender Creative Child, Diane Ehrensaft
 - Gender Born, Gender Made Diane Ehrensaft
 - Transgender 101, Nicholas Teich
 - She's Not There, A Life in Two Genders, Jennifer Boylan
 - Neutrois.me/Non Binary Transition Micah

Building Cultural Fluency

Immerse yourself... many more excellent books, blogs, films

- Second Son, Ryan Sallans
- The Transgender Child, Stephanie Brill,
 Rachel Pepper
- The Transgender Teen, Stephanie Brill,
 Lisa Kenney





Building Cultural Fluency

Immerse yourself... many more excellent books, blogs, films

- FILMS DOCUMENTARIES TV SHOWS:
 - Straightlaced- How Gender's Got Us All Tied Up
 - Trans, The Movie
 - From Three to Infinity
 - I'm Just Anneke
 - No Dumb Questions
 - I am Jazz
 - TransParent, HerStory

On Line Resources

- UCSF Center of Excellence for Transgender Health Primary Care Protocol - transhealth.ucsf.edu
- National LGBT Health Education Center: Fenway Boston Igbthealtheducation.org
- WPATH Standards of Care, 7th Version
 - -wpath.org



On Line Resources

- Lyon-Martin Health Center Consult Line
 - project-health.org/transline
- Howard Brown Health Center, Chicago
 - -howardbrown.org

Building Knowledge CONFERENCES:

genderspectrum

- · Philadelphia Trans-Health Conference
 - Mazzoni Center
- Gender Odyssey
 - Seattle and this year LA
- Gender Spectrum- focus on youth
 - Bay Area, annually Summer
- National Transgender Health Summit, UCSF
 - April, every other year in Oakland
- · WPATH International 2 years

Resources – General and Youth

- National Center for Transgender Equality: Injustice at Every Turn: National Transgender Discrimination Study; 2011
 - www.transequality.org



- Physicians for Reproductive Health (PRH), part of the Adolescent Reproductive and Sexual Health Education Program (ARSHEP): http://prh.org/new-updatededucational-modules-available/
- California Family Health Council brochures on Trans Sexual Health and Fertility in English and Spanish
 - http://www.crc.org/programs-and-services/resourcelibrary/clinicalguidelines-and-research

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Addendum

- Slides to augment understanding and for Q&A:
 - How puberty blockers work
 - -Cases
 - Dosing details of feminizing and masculinizing hormones

Medications for Feminization

Estrogen	Start	Average	Max
Estradiol Generic estrace	0.5 mg oral tab Sublingual sl bid	2 mg sl bid	4 mg sl bid
Estradiol valerate	5 mg IM q week	5 mg IM q week	40 mg IM q o week
Estrogen Patch	50-200 mcg/d (1-2 50-100 mcg patches, change twice weekly)	200 mcg/d (apply #2 100mcg patches, change twice weekly)	400 mcg/d (apply #4 100 mcg patches, change twice weekly)

Anti-androgens	Start	Average	Max
Spironolactone blocks Testosterone receptors and decreases production of T	25 mg po bid Increase by 25 mg bid weekly	100 mg po bid	150 mg po bid Rarely get increased benefit over 100mg bid
5a-reductase inhibitors			
Finasteride	¼ of generic 5 mg tab po	1/2-1 tab of 5 mg po	5 mg po q day
Dutasteride	0.5 mg po every day		
	** consider estrogen initially then titrate spiro	Baseline labs: CBC, CMP, Lipids, consider TSH	Follow up Labs: K if on spiro Lipids, Consider hormone levels

Progestins	Start	Average	Max
Micronized Progesterone	100 mg po every day	100 mg po every day	200 mg po every day
Medroxyprogester one	2.5-5 mg po every day	5-10 mg po every day	10 mg po every day
FOR MALE PATTERN BALDING			
Minoxidil 5%	Apply to scalp every day		

Testosterone	Initial	Typical	Maximum
Testosterone Cypionate	20 mg IM/SQ q wk	50 mg IM/SQ q wk	100 mg IM/SQ q wk
200mg/cc			Higher doses may aromatize to estrogen
Testosterone topical gel 1%, 1.62% and compounded	12.5-25 mg QAM	50 mg QAM	100 mg QAM
Testosterone Patch (brands very slightly in dosing)	1-2 mg QPM	4 mg QPM	8 mg QPM May be difficult to get insurance coverage