GENDER-AFFIRMING HEALTH INTERVENTIONS FOR CHILDREN AND ADOLESCENTS: FROM CLINICS TO THE COMMUNITY

Annie Hoopes, MD, MPH (she/her)
The Adolescent Center
Kaiser Permanente Washington
IF YOU REMEMBER 3 THINGS

• Multidisciplinary model of care for TGD youth
• Diversity of affirmation journeys
• Positive impact of parental support and affirming environments
Gender affirmation may include:

- Psychosocial affirmation
- Puberty blockers
- Gender-affirming (cross sex) hormone therapy
  - Integrated with comprehensive and gender-affirming primary care
- Gender-affirming surgeries
- Legal affirmation
DIVERSITY OF AFFIRMATION JOURNEYS
PSYCHOSOCIAL AFFIRMATION

- Social
  - Pronouns
  - Name
  - Social gender role
- Psychological
  - Addressing psychosocial health concerns
  - Having support in transition process
  - Addressing internalized stigma and transphobia
ELICITING GENDER IDENTITY

• Kids: “Some kids tell me they think of themselves as girls, some as boys, some as part girl and boy, or something entirely different. How do you think about yourself?”
• Teens: “There are lots of ways people describe their gender identity, how do you think of yours?”
  • “Tell me what that term means to you?”
• Role of diagnostic evaluation
Puberty Blockers

- Blockers are gonadotropin releasing hormone (GnRH) agonists
- GnRH
  - Pulsatile release from the hypothalamus
  - Stimulates pituitary release of luteinizing and follicle stimulating hormones (LH and FSH)
- LH and FSH
  - Stimulate the gonads to produce sex steroids (estrogen, progesterone and testosterone)
MECHANISM OF ACTION OF BLOCKERS

- Large non-pulsatile dose of GnRH agonist floods the pituitary
- Initial release of FSH and LH
- Initial surge of sex steroid hormones
  - Menstrual bleeding 14-28 days after injection
  - Followed by amenorrhea
- End result
  - Suppression of
    - FSH and LH secretion
    - Testicular release of testosterone
    - Ovarian release of estrogen and progesterone
GNRH A TREATMENT

• When?
  • At least Tanner (sexual maturity rating) stage 2
    • Mean age for the first signs of puberty
    • 10.5 years in ovary-bodied people, range 8 to 12 yrs
    • 11.5 years in testicle-bodied people, range 9 to 13 yrs

• What
  • Intramuscular leuprolide acetate (Lupron)
  • Histrelin Implant (Supprelin LA or Vantas)
CLINICAL EFFECTS OF GNRHA

• Will slow down
  • Pubertal development
  • Bony changes of puberty
  • Androgen-dependent hair growth
  • Deeping of the voice, enlargement of larynx
  • BMD does not increase as expected but is believed to catch up with subsequent sex steroid administration

• Completely reversible
  • If immediately followed by cross-sex hormones patient will be not be fertile
  • No effect on fertility if discontinued

Devries et al 2011 J Sex Med
CLINICAL EFFECTS OF GNRHA

• May
  • Improve psychological function
    • But has not been found to improve gender dysphoria
  • Increase adult height in affirmed males
  • Decrease adult height in affirmed females

De Vries et al; Pediatrics 2014
De Vries et al; J Sex Med 2010
WHY USE PUBERTY BLOCKERS?

- Provide time to explore gender incongruence

- Prevent sex characteristics that are difficult or impossible to reverse
  - Adam’s apple
  - Male pattern hair growth
  - Voice deepening
  - Breast development
BLOCKERS AFTER PUBERTY

- Prevent menstruation
- Prevent further androgen effects
- Give parents a chance to catch up
- Used post puberty will NOT cause regression in
  - Penis, beard, body hair, Adam's apple, shoulders, jaw
  - Breast or hips
- Allows use of lower doses of affirming hormones
GENDER AFFIRMING HORMONES

• Typically initiated between age 14-16 (widely variable)
  • Number of years living stably in affirmed gender role
  • Number of years of pubertal suppression
  • Degree of dysphoria
  • Distress because physical development is out of sync with peers

  ‣ Puberty is 2-3 year process – mimic this in patients who started blockers in early puberty
    • Those who present later in adolescence have already experienced near-full puberty so hormone regimens may be increased to full replacement doses over a shorter interval
    • Ideally continue blockers until gonadectomy
MASCULINIZING HORMONES

Testosterone injections, patch, or gel

Partially reversible effects
- Increased lean muscle mass / decreased subcutaneous fat
- Masculine pattern hair growth
- Chest tissue atrophy possible

Irreversible effects
- Deepened voice
- Clitoromegaly

Adverse effects
- Acne
- Polycythemia, transaminitis
- Dyslipidemia, weight gain, hypertension
- Mood lability

Hembree. Endocrine Society Clinical Practice Guideline 2017
Olson J. LGBT Health 2014

Video from Seattle Children’s: https://www.youtube.com/watch?v=dmjSEf2og1A
**Feminizing Hormones**

**Androgen blockade**
- Continuing blockers
  - Allows lower doses of estrogen; even higher doses may not block effects of testosterone
- Spironolactone
- Bicalutamide

**Decreased height possible**
- With administration of estrogen growth plates will close

Video from Seattle Children’s: https://www.youtube.com/watch?v=8_gdLCXKj5Y
Feminizing Hormones

17 beta estradiol pills, patch or injections

- Partially reversible
  - Decreased facial and body hair
  - Fat redistribution
  - Decreased spontaneous erections
  - Softened skin
- Irreversible
  - Breast tissue growth
  - Closure of growth plates
- Adverse effects
  - Thromboembolic disease
  - Liver dysfunction, cholelithiasis
  - Hyperprolactinemia, hypertension

Video from Seattle Children’s: https://www.youtube.com/watch?v=8_gdLCXKj5Y

Hembree. Endocrine Society Clinical Practice Guideline 2017
FOLLOW-UP

• Ongoing mental health support
• Medical follow-up
  • Assess clinical response
  • Monitor for undesired side effects
  • Monitor labs
• Affirming primary care and specialty services
• Voice training
BINDERS, PACKERS & STP DEVICES
GENDER-AFFIRMING SURGERIES

• "Top" surgery
  • To create a masculine chest shape or enhance breasts
• “Bottom” surgery
  • Surgery on genitals or reproductive organs
• Facial feminization
• Hair removal
A NOTE ABOUT CONSENT
• Suicide rates among TGD youth are significantly lower among those with strongly supportive parents (4% vs 60%)

• TGD youth who describe at least 1 supportive person in their life report significantly less distress than those who only experience rejection

• In communities with high levels of support, non-supportive families tended to increase support over time, leading to dramatic improvement in mental health outcomes

Ryan 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
COMMON PARENTAL CONCERNS THAT MAY DELAY ACCESS TO GENDER-AFFIRMING TREATMENT

• Fear of harassment
• Fear of rejection by peers or other family
• Fear of physical harm
• Worry about preservation of fertility options
• Worry about appropriate timing of transition
• Grief/loss of “former” identity
• Fear of regret regarding transition
  • How do I know they are actually transgender?
  • What if this is just a phase?
  • Why can’t we wait until they have finished puberty or they are an adult before we talk about medical transition? What if my child regrets this?

COMMUNITY SUPPORT

- School policies to support and affirm TGD students
- Community support groups and advocacy efforts
- Inclusive insurance policies
- Anti-discrimination laws
PROMOTING SEXUAL HEALTH OF GENDER DIVERSE ADOLESCENTS

- Welcoming environments
- Visual cues
- All-gender restrooms
- Confidentiality
- Inclusive health education curricula
The Q Card is a tri-fold pocket communication resource designed to simultaneously empower LGBTQ youth to advocate for themselves and educate healthcare providers.

It allows youth to fill in their sexual orientation, gender identity, personal gender pronouns, and any specific concerns.

http://www.qcardproject.com
INCLUSIVE LANGUAGE

- Affirmation vs. transition
- Sex assigned at birth vs. biological/natal/real sex
- A person with ovaries/uterus/cervix vs. woman
- A person with penis/testicles vs. man
- Chest vs. breasts
- Genitals or front hole vs. penis/vagina/vulva
- Bleeding vs. menstruation
- People who menstruate/have a period vs. women
- Personal gender pronouns vs. preferred pronouns
HEARING FROM YOUTH

• AHI Video (7:43m) https://www.youtube.com/watch?v=CHN3YhMi-5A
IF YOU REMEMBER 3 THINGS

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- Positive impact of parental support and affirming environments
• https://www.genderspectrum.org
• https://www.umhs-adolescenthealth.org/improving-care/spark-trainings/lgbtq-youth-series/
• Guidelines
  • AAP: https://pediatrics.aappublications.org/content/142/4/e20182162
  • WPATH Standards of Care: https://www.wpath.org/publications/soc
  • UCSF: https://transcare.ucsf.edu/guidelines
• Trans Youth Project: http://depts.washington.edu/scdlab/research/transyouth-project-gender-development/
THANK YOU!

Andrea.J.1.Hoopes@kp.org
MEDICAL TRANSITION FOR YOUTH IS COMPLICATED: PARENTAL CONCERNS

• How do I know they are actually transgender?

• What if this is just a phase?

• Why can’t we wait until they have finished puberty or they are an adult before we talk about medical transition? What if my child regrets this?
• Many transgender youth lead normal, productive lives
• Usually develop resilient adaptations to social biases and mistreatment
• Many develop and possess remarkable strength and self-determination
EVALUATION AND MONITORING

- Height / weight / blood pressure / Tanner stage
  - baseline and every 3-6 months thereafter

- Ultrasensitive fsh / lh / testosterone / estradiol
  - baseline, 8 weeks, one year. After first year, every 6 mo and if any signs of re-emerging puberty

- Bone age / vitamin D
  - baseline and annually

- Dexe scan
  - baseline and every other year; in all patients ensure adequate calcium intake, and weight bearing activity

- Replace implant after 3 years

2017 Guidelines endorsed by Pediatric Endocrine Society
MASCULINIZING HORMONES WITH BLOCKERS

- In postpubertal patients
  - increase more rapidly up to 75 mg/2 wk for 1st 6 mo
  - then increase up to 125 mg/2 wk
- Adult dose - most patients reach normal male range of total testosterone and good clinical results at
  - 50-75mg SC Q week or
  - 50-100mg IM Q week or 100-200mg IM Q 2 weeks
  - Adjust dose to mimic physiologic testosterone levels 400-700ng/dl

Hembree. Endocrine Society Clinical Practice Guideline 2017
Olson J. LGBT Health 2014
MEDICAL MONITORING

• Every 3-6 months: ht/ wt / BP / Tanner stage
• Every 6-12 months: hemoglobin/hematocrit, lipids, testosterone, vitamin D
• Every 1-2 years bone age and DEXA (latter until 25-30 yo)

Hembree. Endocrine Society Clinical Practice Guideline 2017