Medical Care for Trans and Gender Diverse Youth

Maddie Deutsch, MD, MPH
Professor of Clinical Family & Community Medicine
Medical Director, UCSF Gender Affirming Health Program
University of California – San Francisco

President, US Professional Association for Transgender Health
Chapter Lead Author, Primary Care, WPATH Standards of Care, Version 8

POLICY STATEMENT Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

PEDIATRICS Volume 142, number 4, October 2018:e20182162

Ensuring Comprehensive Care and Support for Transgender and Gender-Diverse Children and Adolescents

Jason Rafferty, MD, MPH, EdM, FAAP, COMMITTEE ON PSYCHOSOCIAL ASPECTS OF CHILD AND FAMILY HEALTH, COMMITTEE ON ADOLESCENCE, SECTION ON LESBIAN, GAY, BISEXUAL, AND TRANSGENDER HEALTH AND WELLNESS

Special Issue: Standards of Care for the Health of Transgender and Gender Diverse People, Version 8

International Journal of Transgender Health
Volume 23 Number S1 September 2022

Endocrine Treatment of Gender-Dysphoric/ Gender-Incongruent Persons: An Endocrine Society* Clinical Practice Guideline

Wylie C. Hembree,[1] Peggy T. Cohen-Kettenis,[2] Louis Gooren,[3] Sabine E. Hannema,[4] Walter J. Meyer,[5] M. Hassan Murad,[6] Stephen M. Rosenthal,[7] Joshua D. Safer,[8] Vin Tangpricha,[9] and Guy G. T'Sjoen[10]

J Clin Endocrinol Metab, November 2017, 102(11):3869–3903

American Psychiatric Association. (2013). Gender Dysphoria. In Diagnostic and statistical manual of mental disorders (5th ed.).

AMA AMERICAN MEDICAL ASSOCIATION

- https://academic.oup.com/jcem/article/102/11/3869/4157558?login=false
- https://www.wpath.org/soc8
- https://publications.aap.org/pediatrics/article/142/4/e20182162/37381/Ensuring-Comprehensive-Care-and-Support-for?autologincheck=redirected?nfToken=00000000-0000-0000-0000-000000000000

General considerations

- The management of trans and gender diverse children and adolescents with puberty-delaying medications, and gender affirming hormone therapy is medically necessary when indicated for the management of gender incongruence

- Care should be provided by qualified clinicians, operating as part of a multidisciplinary team

- Parental/guardian consent, as well as assent of the child or adolescent, is required

Approach to pre-pubertal children

- Social-emotional support (child, family)
  - Child
  - Family
  - Community
- Social transition
  - Name/pronoun
  - Clothing
  - Lived role

Pubertal staging

- “Tanner” stages
  - Various measures of genital, breast, and body hair development describe stages 1-5
- Tanner 2 is the milestone to reach to qualify for medical interventions
  - Presence of breast buds
  - Testicular volume reaches 4ml

Upon reaching Tanner 2

- Puberty – delaying medications
  - "GnRH analogs"
  - Other hormone blockers as indicated or available

- Gender affirming hormone therapy
  - Begin when appropriate case-by-case
  - GnRH analog and/or other blockers are generally continued concurrently

GnRH analogs - mechanism

- Shuts down signals from pituitary gland to gonads
- Gonads stop making estrogens or testosterone
- Generally results in regression back to Tanner 1
- Extensive experience using in children with precocious (early) puberty
  - Excellent safety record
- Primary concern is impact on bone density and development
  - In general, once hormones are started, density catches up

Sex hormones

- Children with ovaries
  - Testosterone
  - May use other agents to help stop menses
- Children with testes
  - Estradiol (an estrogen)
  - Testosterone blocking medication
    - GnRH analog
    - Spironolactone

Sex hormones - considerations

- Begin after careful consideration of indications
- Dosing is generally ramped up over 2 years to approximate typical pubertal process
- Frequent laboratory monitoring
- Assessment for co-occurring medical conditions requiring special attention
- Pubertal growth spurt will occur if begun before completion of bone development

Reproductive health considerations

- TGD youth who have gone through natural puberty
  - Egg retrieval is often possible
  - Sperm retrieval is often possible with [temporary] cessation of hormones
  - Ideally, freezing of eggs/sperm before hormones begin

Reproductive health considerations

- TGD youth who have not gone through natural puberty
  - Early data suggesting egg retrieval may be possible in some cases
  - Testes do not mature and thus sperm production does not begin

Summary

- Pubertal delay and gender affirming hormone therapy are medically necessary as recognized by numerous professional societies and guidelines
- Treatment should occur after an assessment for gender incongruence and in the context of a multidisciplinary team of experts
  - Parent/guardian consent, and patient assent are required
- Bone density generally recovers with initiation of hormone therapy

Summary

- Storing sperm or eggs prior to hormones in youth who have undergone natal puberty is ideal
- Gamete production in youth who do not undergo natal puberty likely face loss of fertility, though some new evidence is emerging.
- Risks of these treatments should be weighed in careful consideration of the known benefits of treatment