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# Caring for transgender youth

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Seattle Children's Gender Clinic

# Disclosures

- No conflict of interest to report.
- There are no relevant financial relationships with commercial interests to disclose
- Discussing the off-label use of medications for treatment of gender dysphoria.

# Learning objectives

## AFFIRM

- Create an affirming clinical environment

## REFER

- Seattle Children's Gender Clinic

## MANAGE

- Guidelines and approach to gender-affirming medical care in primary care setting

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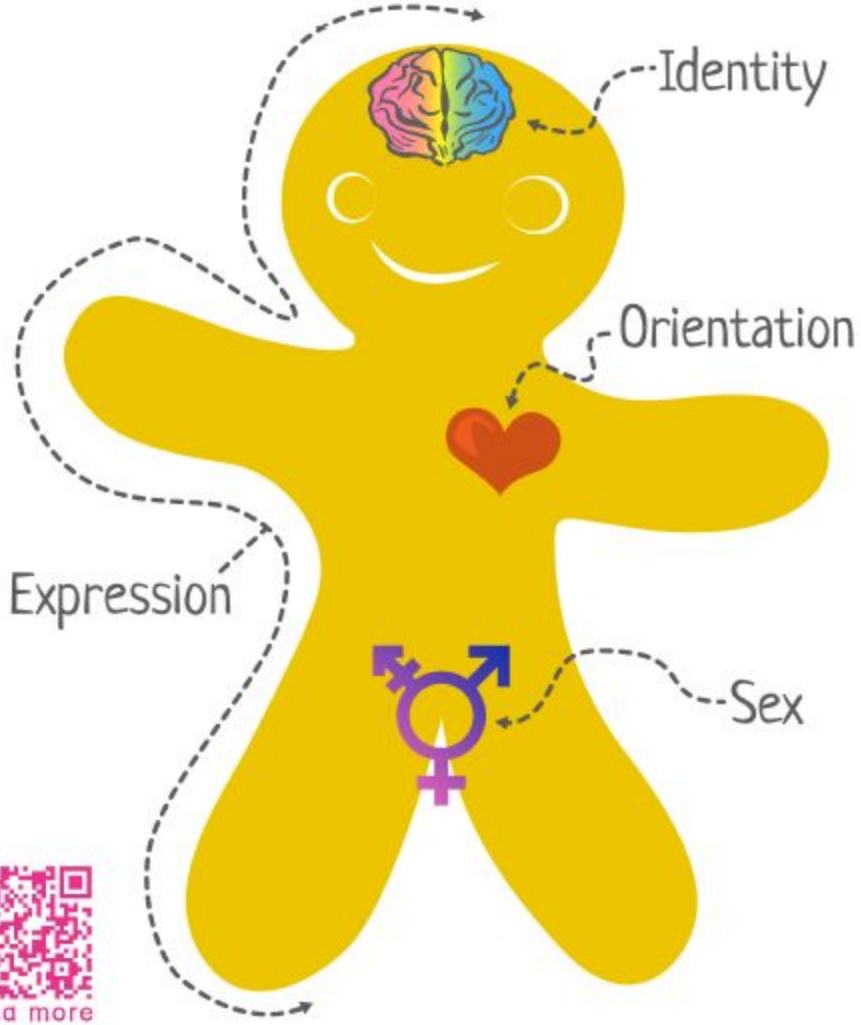
# Background

# The Genderbread Person

by www.ItsPronouncedMetrosexual.com




read more

## Gender Identity

Woman — Genderqueer — Man

Gender identity is how you, in your head, think about yourself. It's the chemistry that composes you (e.g., hormone levels) and how you interpret what that means.

## Gender Expression

Feminine — Androgynous — Masculine

Gender expression is how you demonstrate your gender (based on traditional gender roles) through the ways you act, dress, behave, and interact.

## Biological Sex

Female — Intersex — Male

Biological sex refers to the objectively measurable organs, hormones, and chromosomes. Female = vagina, ovaries, XX chromosomes; male = penis, testes, XY chromosomes; intersex = a combination of the two.

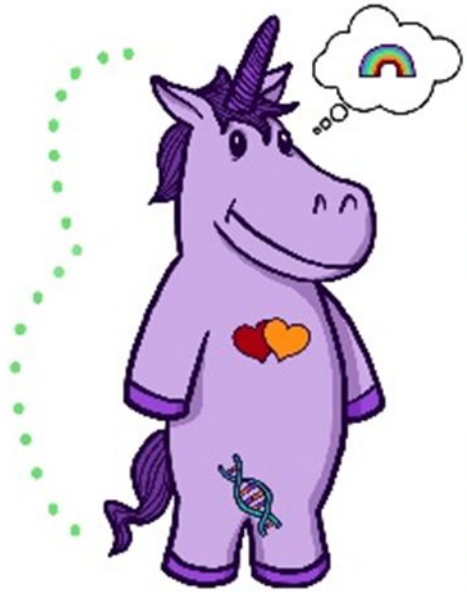
## Sexual Orientation

Heterosexual — Bisexual — Homosexual

Sexual orientation is who you are physically, spiritually, and emotionally attracted to, based on their sex/gender in relation to your own.

# The Gender Unicorn

Graphic by: TSER



To learn more, go to:
www.transstudent.org/gender

Design by Landyn Pan and Anna Moore

## Gender Identity

- Female/Woman/Girl
- Male/Man/Boy
- Other Gender(s)

## Gender Expression

- Feminine
- Masculine
- Other

## Sex Assigned at Birth

Female | Male | Other/Intersex

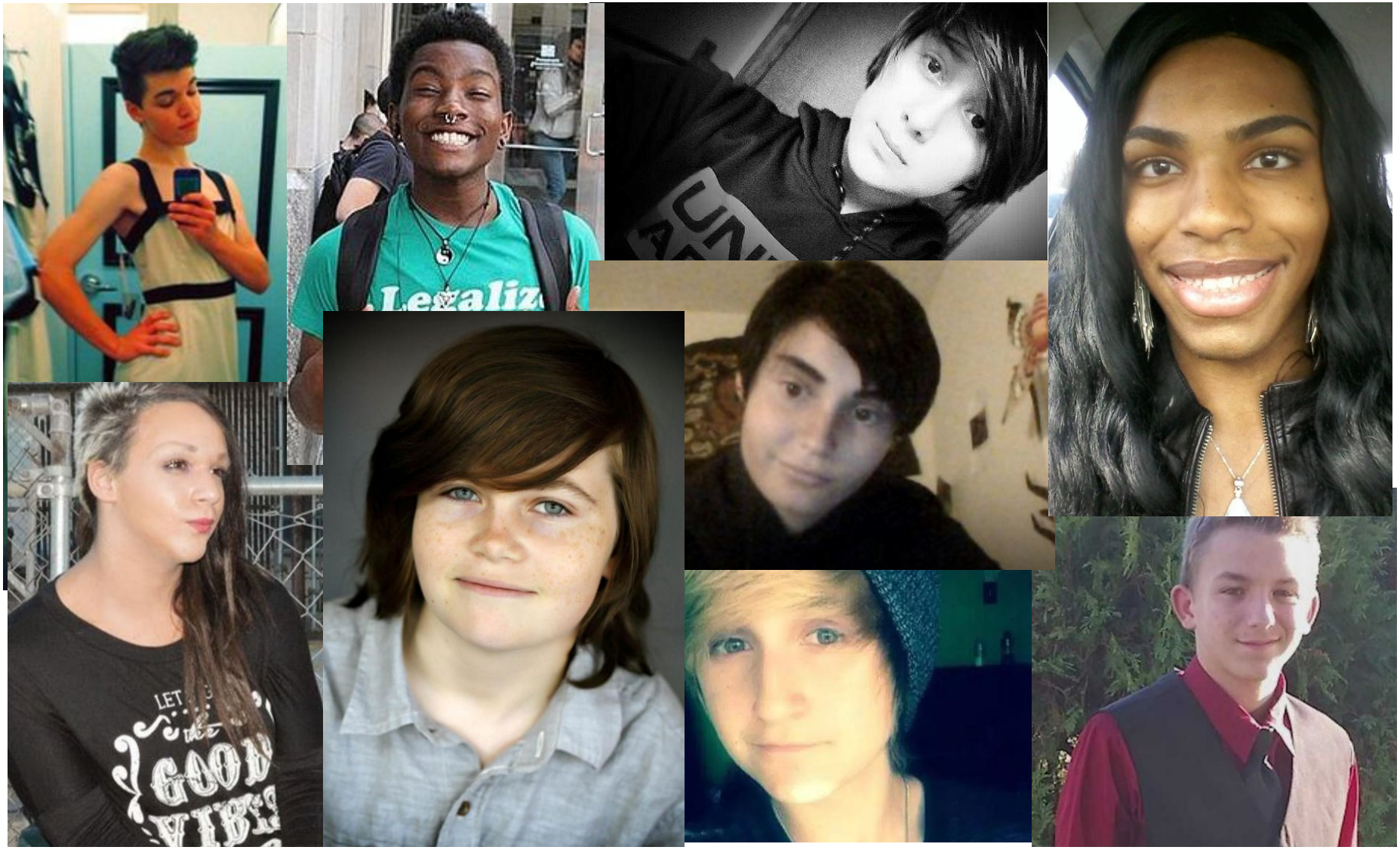
## Physically Attracted to

- Women
- Men
- Other Gender(s)

## Emotionally Attracted to

- Women
- Men
- Other Gender(s)

# Importance



# Definitions

- **Transgender:** someone whose gender identity is different from the sex they were assigned at birth. For example:
  - **Transfeminine:** Someone assigned male at birth, who now identifies their gender as female
  - **Transmasculine:** Someone assigned female at birth, who now identifies their gender as genderqueer or non-binary
- **Cisgender:** someone whose gender identity is the same as the sex they were assigned at birth.
- **Non-binary:** someone whose gender identity is not entirely male nor entirely female.

# Health disparities

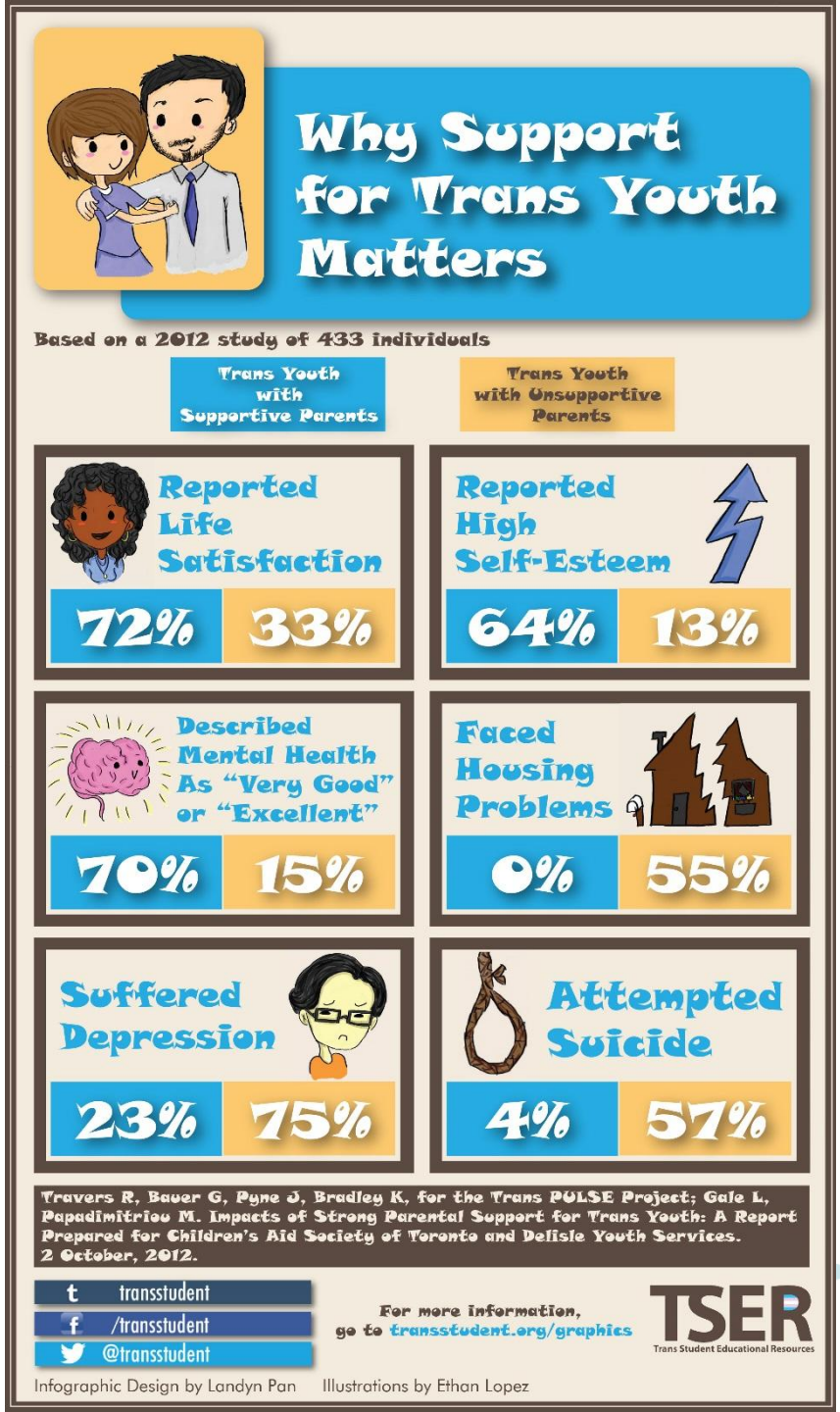
- Transgender youth experience higher levels of bullying, discrimination, violence, family and peer rejection, and homelessness.
- Increased risk of issues including substance abuse, depression, and anxiety.
- Nine-fold increased risk of eating disorders.
- More than 40% of transgender young people attempt suicide.

Olson J et al. 2011. Arch Pediatr Adolesc Med.
Spack NP et al. 2012. Pediatrics.
Diemer et al. 2015. J Adolesc Health.

# Protective factors

- Importance of support from family, schools, & providers
- Trans youth who are supported by their families have similar levels of anxiety and depression compared to their cisgender siblings and peers
- Reduced depression and suicidality among trans youth who were able to use their chosen name in various settings

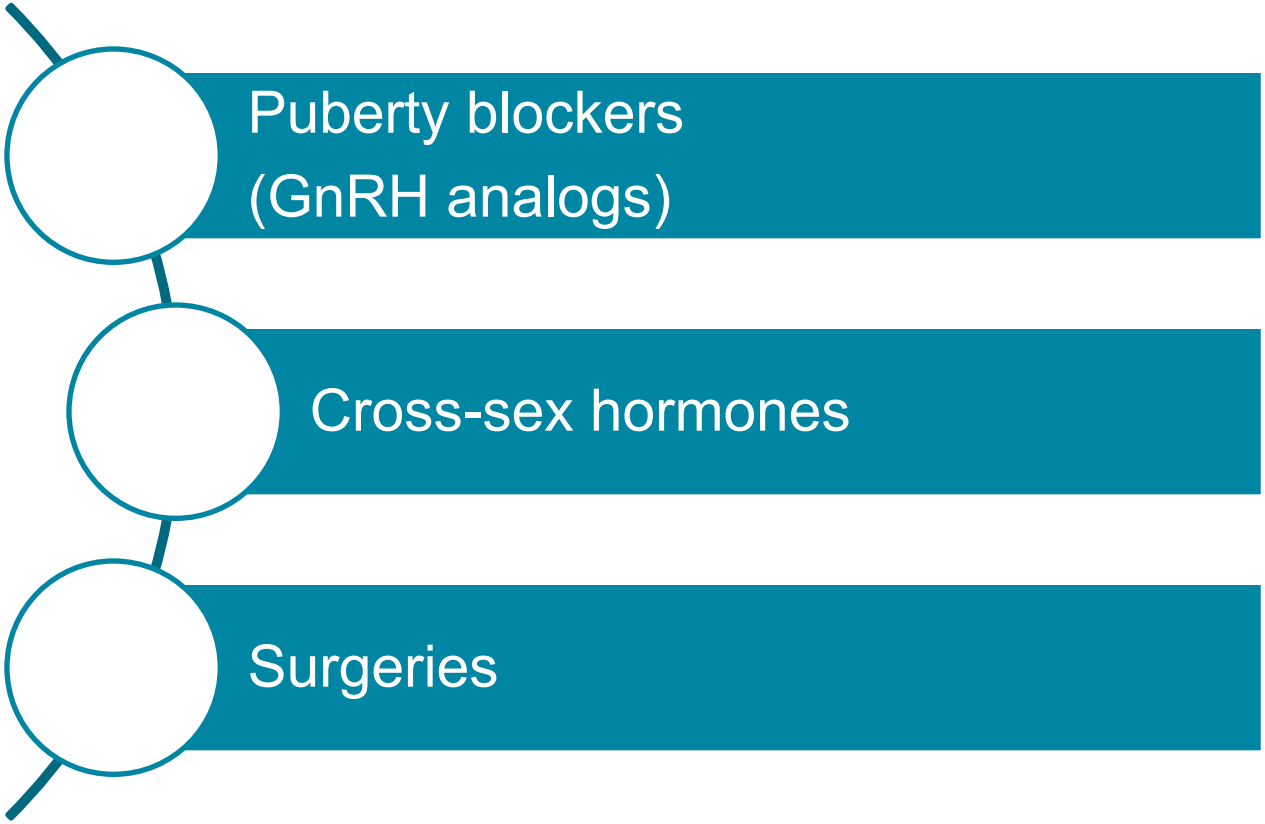
Olson KR et al. “Mental Health of Transgender Children Who Are Supported in Their Identities. 2016. Pediatrics.
Russel ST et al. “Chosen Name Use Is Linked to Reduced Depressive Symptoms, Suicidal Ideation, and Suicidal Behavior Among Transgender Youth. 2018. Journal of Adolescent Health.



# Gender affirming care

Social and emotional support

Affirming care environment



# Settings for gender affirming care

- Multidisciplinary gender clinics
  - Increasing number around the country
  - An effective way to provide coordinated care for transgender youth
- Primary care
  - Also an appropriate setting for trans care
  - More common for PCP to provide adult trans care vs. pediatric
  - Pediatricians can do this as well!

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# Creating safe and affirming clinical spaces

# Barrier to care: Preferred name and pronouns not used

"…the doctor said, 'her, her, her' and [my son], who's 10, said, 'him, him, him!' and the doctor got mad and started being dismissive and irritated, and kept saying 'Her!'…" -Parent

"…Situations like that, I will never forget them 'cause I always feel like everyone turns and looks at me right away. you're just sitting in a room and everyone's eyes on you and you're hot and nervous." -19 year old

**Recommendation: Recording of preferred name and pronoun in the electronic medical record.**

Gridley S et al 2016. "Youth and Caregiver Perspectives on Barriers to Gender-Affirming Health Care for Transgender Youth." Journal of Adolescent Health.

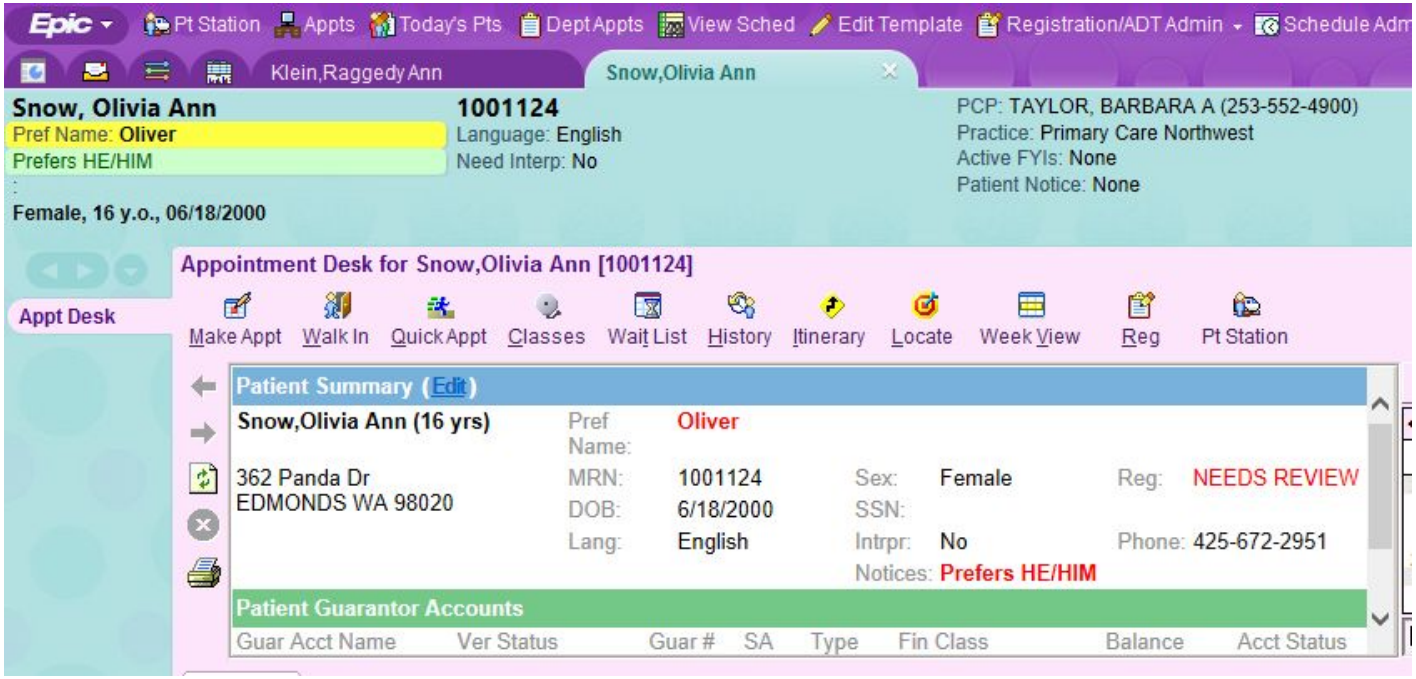
# A welcoming and trusting environment

What changes can your clinic/organization make to ensure that chosen names and pronouns are collected, communicated, displayed?

- Intake forms/process
- EMR banner
- ID bands, stickers
- Other printed materials

# EMR banner

- A patient's preferred name (and pronoun) appears in the Epic banner at Seattle Children's



# Ways to ask about name and pronoun

- Keep it simple and respectful:
  - “What name do you go by?”
  - “What pronouns do you use?”
- Normalize it by:
  - Asking all patients these questions.
  - Introducing yourself to patients with your name and pronoun.
- If you make a mistake, apologize as soon as possible and then move on.

# Pronouns

| Subjective | Objective | Possessive | Example |
|---|---|---|---|
| He | Him | His | He is in the waiting room.<br>The doctor is ready to see him.<br>That chart is his. |
| She | Her | Hers | She is in the waiting room.<br>The doctor is ready to see her.<br>That chart is hers. |
| **They** | **Them** | **Theirs** | **They are in the waiting room.**<br>**They doctor is ready to see them.**<br>**That chart is theirs.** |
| Ze | Hir | Hirs | Ze is in the waiting room.<br>The doctor is ready to see hir.<br>That chart is hirs. |

Source: Fenway Institute's "Providing Affirmative Care for Patients with Non-binary Gender Identities"

# They/them pronouns

Don’t worry…
You already know how to use the singular “they”:

“Oh no, someone left *their* cell phone.”

“Shoot, I wonder if *they’ll* miss it?”

“Of course *they* will.  It’s *their* phone.”

# Notes example

- Legal name: Rod Ztest
  Preferred name: Roberta Ztest.
  Note: Rod (Roberta) Ztest is a 14 year old transgender female, assigned male at birth. Patient will be referred to as Roberta and she/her in notes. She is being treated for…

- Legal name: Kathleen Ztest
  Preferred name: Chase Ztest
  Note: Kathleen (Chase) Ztest is a 16 year old non-binary person, assigned female at birth. Patient will be referred to as Chase and they/them in notes. They present to appointment with mother and father. Patient is attending intensive outpatient program; parents are attending weekly group therapy.

# Case example

- Kai's legal name Kaia is listed on his chart, and his gender marker is listed as female.
- Kai tells you he goes by the name Kai, and asks if you can make sure everyone at your clinic knows this.
- You enter "Kai" in the preferred name field (or note it in some other way, depending on your clinic's system).
- You ask "And what pronouns do you go by, Kai?"
- Kai says "male pronouns" so you indicate that in the chart as well.
- Because Kai's legal gender marker is still female, you leave the sex field as female (unless your system has a separate field for birth sex vs. legal sex).

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# Seattle Children's Gender Clinic

# Seattle Children's Gender Clinic

- About 900 families have contacted us since we opened in October 2016
- Located in Seattle Children's Adolescent Medicine Division, Springbrook Building next to main hospital
- Patients up to 21 years old

# Multidisciplinary approach

- Case conferences weekly
- Care Navigator
  - Lara Hayden, MSW LICSW
- Mental health support and readiness assessments
  - Seattle Children's psychiatry/psychology colleagues and community mental health therapists
- Puberty blockers
  - Endocrinologists Dr. Salehi, Dr. Hodax, Dr. DiVall
- Gender-affirming hormones
  - Adolescent Medicine specialist Dr. Inwards-Breland, Katie Sumerwell, ARNP, Dr. Arafa, Dr. Golub, and fellows Dr. Cuellar, Dr. Pham, Dr. Schroeder

# Referring a patient

Patients/families can self-refer or PCP can place a referral:

Adolescent Medicine scheduling

206-987-2028

Care Navigator

206-987-8319

Fax a referral (NARF)

206-985-3121

## 1 Call us

Refer yourself directly or have your provider refer you by calling 206-987-2028.

## 2 We will call you

Once we have your referral, we will schedule a 30-minute intake phone call with our care navigator.

## 3 Get connected to mental health support

We will help you get connected before starting treatment.

## 4 Meet the Gender Clinic Team

When you are ready, we will call you to schedule your first medical appointment. Here we will talk about your medical history, do a brief exam and talk about treatment options.

## 5 Begin gender-affirming treatment

See back for details.

- Puberty blockers
- Monitoring
- Cross-sex hormones

## 6 Continue adult care

We can treat you until age 21. After that, we can refer you to:

- An adult trans healthcare provider
- A surgeon for gender-affirming surgery

**Ready for treatment** = Mental Health Readiness + Medical Readiness + Family Readiness

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# Patient management

# Scarlett

- A 13 year-old AMAB Caucasian trans female brought in by  mom for consultation
- Identifies as female but gender expression is still male
- Is distressed by onset of puberty; desires to transition to female

- What do you do next?

# Jeremey

- 16 year old AFAB transgender African American male
- This patient would like to transition and has significant distress about menses (menarche at 11)
- PMH of depression/anxiety on medication and has therapist
- How would you proceed?

# Initial Assessment

- **What age?**
  - No “right answer.” Gender identity begins forming around age 2 or 3.
- **What questions?**
  - Can you tell me what pronouns and name you prefer?
  - Do you think of yourself more as a boy, girl, neither, both, something else?
  - Do you identify as male, female, neither, both, something else?
  - How do you identify your gender?
- **Alone or with parent?**
  - Use your judgment!
  - Explain boundaries of confidentiality
  - General HEADSS assessment

# Beginning treatment

- Assess readiness for treatment
  - Physical (Tanner stage)
  - Psychological
  - Social / family
- Medical history
- Review risks and benefits of pubertal suppression and hormone therapy
  - Irreversible physical changes (cross-sex hormones)
  - Fertility
  - Metabolic changes
- Mental health readiness evaluations
  - < 18 years old
  - > 18 years old- Informed Consent

# Approaches to care*

1. Refer to multidisciplinary clinic for comprehensive management
2. Refer for initial management, with ongoing shared management
3. Contact us with questions
4. Manage patient independently

* Depends on your comfort and patient's individual situation

# Professional guidelines

- Endocrine Society
  - 2017: Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline
  - 2009: Endocrine Treatment of Transsexual Persons
- World Professional Association of Transgender Health
  - [in progress]: Standards of Care v8
  - 2012: Standards of Care v7
- UCSF's Center of Excellence for Transgender Health
  - Guidelines for Primary and Gender-Affirming Care

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# Readiness assessments

# Gender Dysphoria

What happens when one's gender identity is incongruent with one's biological sex?

Slide used by permission from
Dr. Laura Edwards-Leeper

# Psychological Profile of Children and Adolescents with Gender Dysphoria

- Symptoms of depression and anxiety
- Social isolation and rejection
- Low self-esteem/self-worth
- Self-harming behaviors
- Suicidality
- Perception of being completely misunderstood and alone
- Autism Spectrum Disorders?

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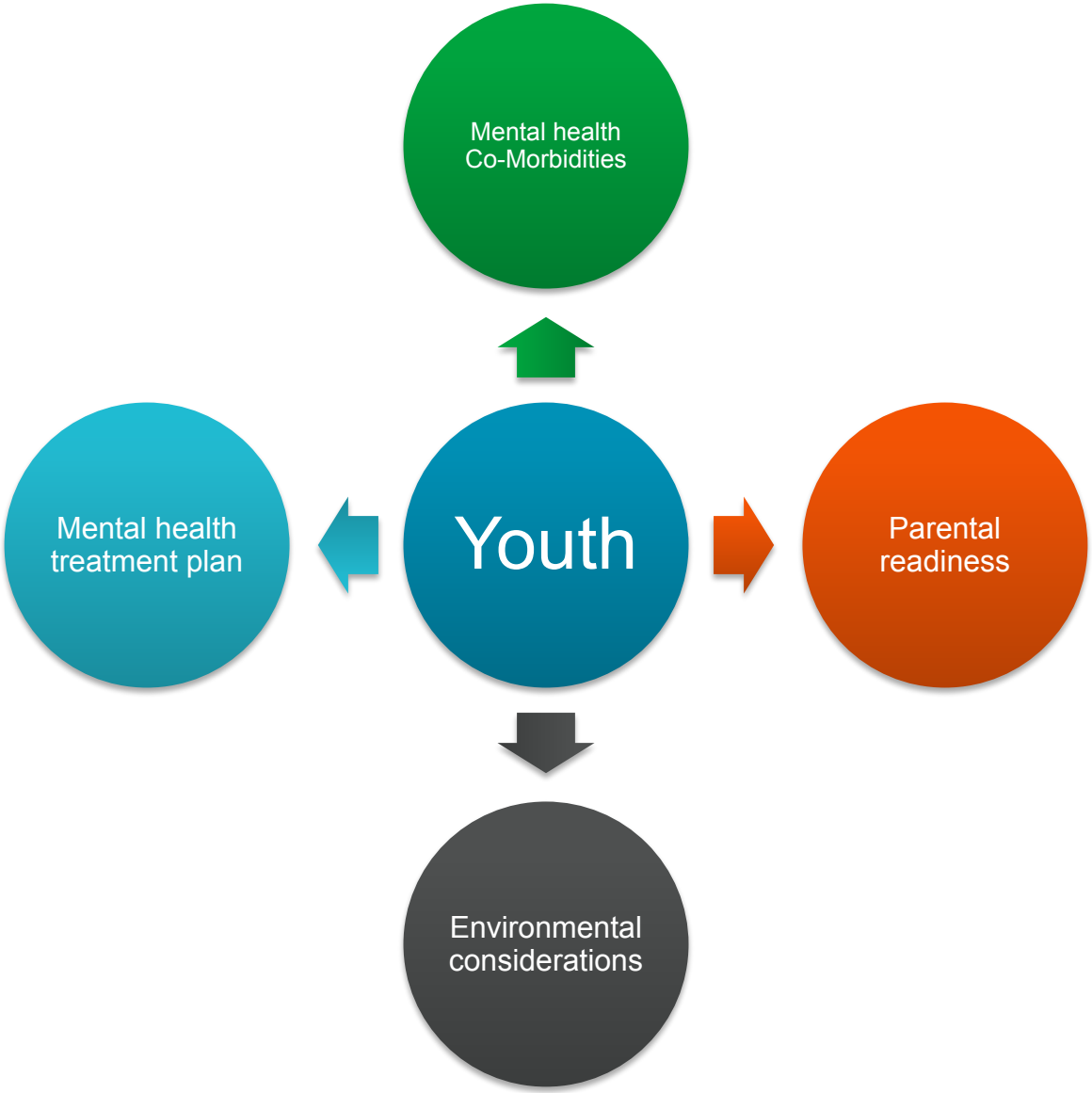
Photo credit: http://choosingdemocracy.blogspot.com/2015/05/these-students-want-education.html

# Readiness assessments



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# Pubertal suppression

# Pubertal suppression: GnRH analogs

- GnRHa
  - Leuprolide
    - Initiate with 22.5 mg IM q 3 months and (**initially check with ultrasensitive LH with LH < 1.0 mIU/mL)** titrate as needed to keep LH **(non-ultrasensitive)** < 4.5 mIU/mL
  - Histrelin LA **(pediatric-↑$$)** / Histrelin **(adult-↓$$)**
    - Surgical (**or clinic procedure**) consult to discuss risks and benefits  and plan placement
    - SQ implant placed q 1-1.5 years
  - Triptorelin
    - 3.75 mg SQ q 4 weeks with **same monitoring as above**

# Puberty Suppression

**Baseline and Follow up Protocol During Pubertal Suppression**

Every 3-6 months
- Height, weight, sitting height, blood pressure, tanner stages

Every 6-12 months
- LH, FSH, estradiol, testosterone, 25OH Vitamin D

Every 1-2 years
- Bone Density using DXA
- Bone age on X-ray of left hand (if clinically indicated)

# Starting cross sex-hormones after pubertal suppression

- Depending on the age of patient
  - Younger patients can follow the protocol presented (for slower onset of puberty)
  - Older patients can go faster than the protocol presented (for faster onset of puberty)
  - Ultimate goal is to strive for peer congruence.

# Induction of Puberty

## Baseline and Follow-up Protocol During Induction of Puberty

Every 3-6 months
- Height, weight, sitting height, blood pressure, Tanner stages

Every 6-12 months
- Transgender males: H/H, lipids, testosterone, 25OH vitamin D
- Transgender females: prolactin, estradiol, 25OH vitamin D

Every 1-2 years
- BMD using DXA
- Bone age on X-ray of the left hand (if clinically indicated)

BMD should be monitored into adulthood (until the age of 25-30 years or until peak bone mass has been reached)

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# Feminizing hormones

# Treatment options for trans female patients

- Estrogen for feminization
  - Estrogen patches or 17-β estradiol at increasing doses
- Spironolactone to reduce testosterone levels
  - Fully reversible, inexpensive
  - Some side effects, including gynecomastia
- GnRH agonist- block and replace
- Monitoring
  - 2-3 months in first year, then 1-2 times a year

# Cross-sex Hormones: Feminizing

| Estrogen | Dosage |
|---|---|
| Oral: estradiol | 2.0-6.0 mg/d |
| Transdermal: estradiol patch (New patch placed every 3-5 d) | 0.025-0.2 mg/d |
| Parenteral: estradiol valerate or cypionate | 5-30 mg IM every 2 wks<br>2-10 mg IM every week |
| **Androgens** | |
| Spironolactone | 100-300 mg/d |
| Cyproterone acetate [a] | 25-50 mg/d |

[a] **Not available in the United States**

**Hembree et al J Clin Endocrinol Metab. July 2017**

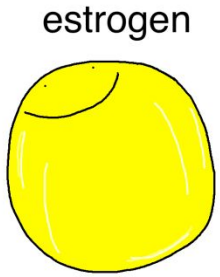
# Starting cross sex-hormones after pubertal suppression- Feminizing

## Estrogen Patches

- 6.25 mcg (1/4 of a 25 mcg patch) for 2 months
- 12.5 mcg (1/2 of a 25 mcg patch) for 2 months
- 25 mcg for 4 months
- 37.5 mcg for 4 months
- 50 mcg for 4 months
- 75 mcg for 4 months
- 100 mcg for 4 months
- Increase dose as needed to target serum estradiol level
- GnRHa should be continued until serum estradiol is >40 pg/mL

## 17-β estradiol

- increasing the dose every 4-6 months
  - 5 µg/kg/d
  - 10 µg/kg/d
  - 15 µg/kg/d
  - 20 µg/kg/d
  - Post-pub- 1mg/d for 6 mo
  - Adult dose 2 mg/d

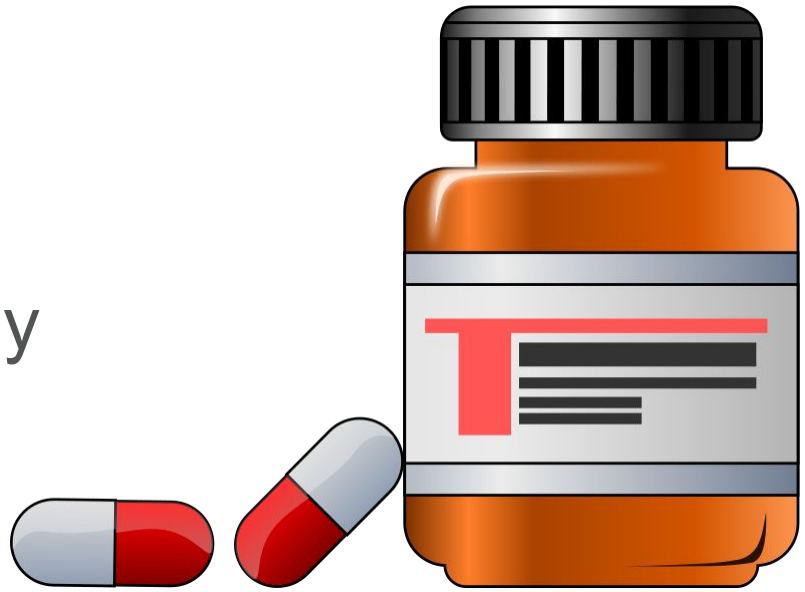


# Feminizing hormones - dosing

| Hormone | Initial–low[b] | Initial | Maximum[c] | Comments |
|---|---|---|---|---|
| **Estrogen** | | | | |
| Estradiol oral/sublingual | 1mg/day | 2-4mg/day | 8mg/day | if > 2mg recommend divided bid dosing |
| Estradiol transdermal | 50mcg | 100mcg | 100-400 mcg | Max single patch dose available is 100mcg. Frequency of change is brand/product dependent. More than 2 patches at a time may be cumbersome for patients |
| Estradiol valerate IM[a] | <20mg IM q 2 wk | 20mg IM q 2 wk | 40mg IM q 2wk | May divide dose into weekly injections for cyclical symptoms |
| Estradiol cypionate IM | <2mg q 2wk | 2mg IM q 2 wk | 5mg IM q 2 wk | May divide dose into weekly injections for cyclical symptoms |
| **Progestagen** | | | | |
| Medroxyprogesterone acetate (Provera) | 2.5mg qhs | | 5-10mg qhs | |
| Micronized progesterone | | | 100-200mg qhs | |
| **Androgen blocker** | | | | |
| Spironolactone | 25mg qd | 50mg bid | 200mg bid | |
| Finasteride | 1mg qd | | 5mg qd | |
| Dutasteride | | | 0.5mg qd | |

Deutsch MB, Guidelines for the primary and gender-affirming care of transgender and gender nonbinary people. UCSF Center of Excellence for Transgender Health, June 2016.

# Spironolactone



- Fully reversible
- Dose: 100 mg -200 mg/day
- Cost: $15/month
- Gynecomastia!!!!!
- Can cause hyperkalemia
- Patients must be counselled about d/c with vomiting
- Obtain electrolytes, BUN, Creatinine 4 weeks after initiations and every 6 months thereafter

# Feminizing monitoring

1) Evaluate every 3 mo in first year the 1-2 times year
2) Measure testosterone and estradiol every 3 mo
    a. Testosterone  should be close to 50 ng/dL
    b. Estradiol should not exceed peak physicologic range- 100-200 pg/mL
3) If on spironolactone measure lytes every 3 mon first year then annually
4) Routine cancer screening
5) Consider BMD at baseline (if low risk- screening at age 60 or in those non-compliant with hormone therapy)

# Scarlett

- A 13 year-old AMAB Caucasian trans female brought in by mom for consultation
- Identifies as female but gende expression is still male
- Is distressed by onset of puberty; desires to transition to female


- What do you do next?

# Scarlett

- Option 1: You refer Scarlett to a mental health provider for a readiness evaluation and a health care provider that has expertise in gender care

- Option 2: You still refer them to a mental health provider but there is no providers with expertise in transgender care. What do you do?
  - Tanner stage
  - Labs

# Scarlett

- Tanner stage 2 testis
- AM ultra sensitive LH is 5 mIU/ml
- Mental health provider, parents and patient onboard to start pubertal suppression
- Discuss options, insurance considerations
  - Leuprolide 22.2 mg IM q 3 months (goal LH <4.4 mIU/mL
  - Histrelin
  - Triptorelin 3.75 mg SQ q 4weeks (same goal)
- Informed consent and assent

# Scarlett

- Alternative: Spironolactone 25-50 mg/day
- Continue mental health therapy
- Block up to 4 years or gonadectomy
- Baseline and follow-up protocol

# What if Scarlett is 17 yrs old

- Tanner stage 5 testis
- Voice has not dropped, very sparse facial hair
- Discuss options, insurance considerations
  - Pubertal blockers
  - Spironolactone
  - Estradiol

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# Masculinizing hormones

# Treatment options for trans masculine patients

- Testosterone for masculinization
  - Induction of male puberty with IM or SQ testosterone, increasing the dose (peer congruent)
- Menstrual suppression
  - For patients who are distressed by their periods
  - Can use IUD, implant, continuous or extended-cycle OCPs, etc.
  - Benefits compared to using GnRHa for this purpose:
    - Much cheaper
    - No menopausal symptoms
- Monitoring
  - 2-3 months in first year
  - Then 1-2 times per year

# Starting cross sex-hormones after pubertal suppression- Masculinizing

- Induction of male puberty with IM or SQ testosterone, increasing the dose every 6 months
  - 25 mg/m$^2$ per 2 week IM/SQ
  - 50 mg/m$^2$ per 2 week IM/SQ
  - 75 mg/m$^2$ per 2 week IM/SQ
  - 100 mg/m$^2$ per 2 week IM/SQ
  - Post-pub- 75 mg/2 weeks for 60 mo
  - Adult dose- 100-200 every 2 weeks
  - GnRHa should be continued until serum testosterone > 100 ng/dL

# Masculinizing Hormones - Dosing

| Androgen | Initial – low dose[b] | Initial - typical | Maximum - typical[c] | Comment |
|---|---|---|---|---|
| Testosterone Cypionate[a] | 20 mg/week IM/SQ | 50mg/week IM/SQ | 100mg/week IM/SQ | For q 2 wk dosing, double each dose |
| Testosterone Enthanate[a] | 20mg/week IM/SQ | 50mg/week IM/SQ | 100mg/week IM/SQ | " |
| Testosterone topical gel 1% | 12.5-25 mg Q AM | 50mg Q AM | 100mg Q AM | May come in pump or packet form |
| Testosterone topical gel 1.62%[d] | 20.25mg Q AM | 40.5 – 60.75mg Q AM | 103.25mg Q AM | " |
| Testosterone patch | 1-2mg Q PM | 4mg Q PM | 8mg Q PM | Patches come in 2mg and 4mg size. For lower doses, may cut patch |
| Testosterone cream[e] | 10mg | 50mg | 100mg | |
| Testosterone axillary gel 2% | 30mg Q AM | 60mg Q AM | 90-120mg Q AM | Comes in pump only, one pump = 30mg |
| Testosterone Undecanoate[f] | N/A | 750mg IM, repeat in 4 weeks, then q 10 weeks ongoing | N/A | Requires participation in manufacturer monitored program[f] |



Deutsch MB, Guidelines for the primary and gender-affirming care of transgender and gender nonbinary people. UCSF Center of Excellence for Transgender Health, June 2016.

# Menstrual suppression

- Done when periods are major stressor
- Much cheaper than Depot Lupron
- No menopausal symptoms
- Can use:
  - LARC (IUD or Implant)
  - Continuous OCPs
  - Extended-cycle OCPs
  - Depot medroxyprogesterone
  - Medroxyprogesterone

# Masculinizing monitoring

1) Evaluate every 3 month first year then 1-2 times a yr
2) Measure testosterone every 3 moths until in normal physiologic male range (400-700 ng/dL)
   a) Injections- measure midway between injections
   b) Transdermal- measure no sooner than 1 wk daily application (at least 2 h after application)
3) Measure H/H at baseline then every 3 months for first year then 1-2 times a yr. Wt, BP and lipids
4) Screen for osteoporosis in those who stop T or not compliant or risk for bone loss
5) PAP and breast examination

# Jeremey

- 16 year old AFAB transgender African American male
- This patient would like to transition and has significant distress about menses (menarche at 11)
- PMH of depression/anxiety on medication and has therapist
- How would you proceed?

# Jeremey

- Readiness assessment done
- Discuss options
  - Block and replace
  - Menstrual suppress
  - Testosterone 50 mg SQ weekly or q 2 weeks
- Continue mental health therapy
- Informed consent and assent

# Cross-sex hormones short-term metabolic outcomes

- Jarin et al. Cross-Sex Hormones and Metabolic Parameters in Adolescents With Gender Dysphoria. Pediatrics, 2017 Vol 139 (5):e20163173
  - 14- 25 years old with GD
  - 116 trans adolescents
  - Study adds- testosterone ↑ H/H and BMI and ↓ HDL; estrogen ↓ testosterone and ALT. Overall, finding support short-term safety of cross-hormones in trans adolescents

# Evolving controversies

- Age minimums for hormones and surgeries
- When parents disagree / consent and assent issues
- Mental health professionals seen as gatekeepers

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# Resources

# Education/resources for providers

- Webinars and information
  - Cardea Services
  - UCSF's Center of Excellence for Transgender Health
  - Human Rights Campaign
  - National LGBT Health Education Center
- Ingersoll Consult Group listserv
- Gender Odyssey Conference

# Resources for families

- Seattle Children's Gender Clinic
- Gender Diversity support groups
- Camp Ten Trees
- Q Card project

# The Q Card


- The Q Card is 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, preferred gender pronouns, and any specific concerns.



**Seattle Children's Gender Clinic**
Referrals: lara.hayden@seattlechildrens.org
General: scgc@seattlechildrens.org