



Brigham and Women's Hospital

Founding Member, Mass General Brigham

Overview of Transgender Care

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Current position: Clinician-educator, BWH

- Director of Education, Center for Transgender Health, BWH
- Endocrinology fellowship program director, BWH
- Education editor, NEJM Group

Disclosures

- No financial conflicts of interests
- None of the medications discussed have been FDA-approved for gender affirmation
- Images: The Gender Spectrum Collection (<https://genderphotos.vice.com>) unless otherwise specified

Learning Objectives

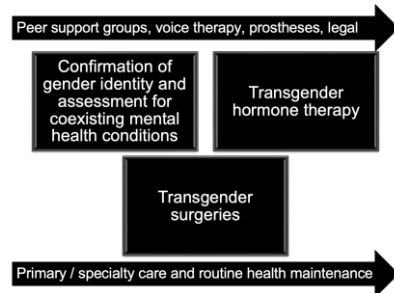
Upon completion of this activity, participants will be able to:

- Review terminology used in trans health
- List interventions to create welcoming environments for transgender and gender-diverse patients
- Discuss principles of gender-affirming hormones

Gender-affirming concepts and terms



Creation of welcoming spaces



Overview of gender-affirming care



Basic concepts in gender-affirming care

Using the correct terms helps promote precise communication

- **Gender identity:** A person's inner sense of being a man, woman, something else, or no gender
- **Sex assigned at birth:** The sex recorded at birth, generally based on appearance of external genitalia (**AFAB** / **AMAB**; ~~biological~~)
- **Transgender and gender diverse (TGD):** People whose gender identity differs from what is typically associated with their sex designated at birth (~~≠cisgender~~)
- **Gender incongruence:** ICD-11 (WHO) term (~~transsexualism, gender identity disorder, gender dysphoria~~)
- **Trans woman (~~≈MtF = Male-to-female~~ ≈ transfeminine):** AMAB whose gender identity is female
- **Trans man (~~≈FtM = Female-to-male~~ ≈ transmasculine)**
- **Nonbinary:** Gender identity falling outside of traditional binary man/woman

Why does it matter to me?

- Transgender / gender diverse people = 0.6% of the US population!
 - Hepatitis B infection: 0.4%
 - HIV infection: 0.35%
 - Rheumatoid arthritis: 0.4%
 - Korean-Americans: 0.6%
 - Nigerian-born Americans: 0.6%
- Rising prevalence
 - ≈1.5% of youth identify as transgender (>>LGBTQ+)
 - Increasing number of individuals seeking gender-affirming care

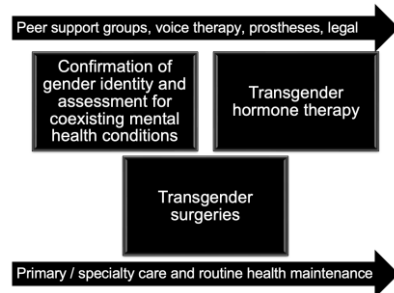
This session will review general principles of trans care



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- *I am so upset! The medical assistant called me in from the waiting room using my legal name!*

Table 7.3: Negative experiences when seeing a health care provider in the past year

| Negative experience | % of those who had seen a provider in the past year |
|--|---|
| They had to teach their health care provider about transgender people to get appropriate care | 24% |
| A health care provider asked them unnecessary or invasive questions about their transgender status that were not related to the reason for their visit | 15% |
| A health care provider refused to give them transition-related care | 8% |
| They were verbally harassed in a health care setting (such as a hospital, office, or clinic) | 6% |
| A health care provider used harsh or abusive language when treating them | 5% |
| A health care provider refused to give them care not related to gender transition (such as physicals or care for the flu or diabetes) | 3% |
| A health care provider was physically rough or abusive when treating them | 2% |
| They were physically attacked by someone during their visit in a health care setting (such as a hospital, office, or clinic) | 1% |
| They were sexually assaulted ⁹ in a health care setting (such as a hospital, office, or clinic) | 1% |
| One or more experiences listed | 33% |

- “Multiple medical professionals have misgendered me, denied to me that I was transgender or tried to persuade me that my trans identity was just a misdiagnosis of something else, have made jokes at my expense in front of me and behind my back, and have made me feel physically unsafe. I often do not seek medical attention when it is needed, because I’m afraid of what harassment or discrimination I may experience in a hospital or clinic.”
- Participant,
2015 USTS

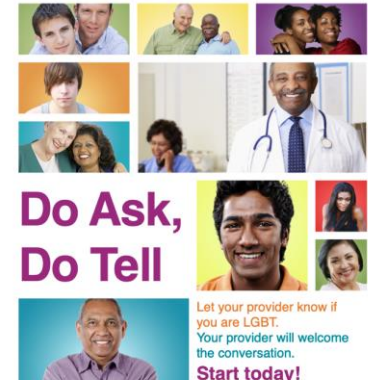
23% did not seek health care that
they needed due to fear of being
mistreated
Only 28% out to their provider

Creation of a welcoming environment is key to patients' wellbeing

- Your own behaviors:
 - Know: Basics of language, treatments
 - Ask: Pronouns, names, other important questions (without assumptions) – if needed
 - Apologize: If making errors, then move on
 - Understand: Impact of previous experiences, discomfort associated with “routine” procedures

The environment

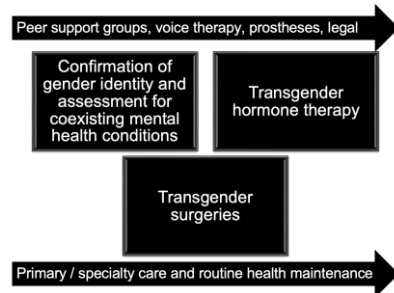
- LGBT persons tend to scan the environment for clues to acceptance:
 - ☐ Stickers on ID
 - ☐ Rainbow flag
 - ☐ Posters/brochures
- Paperwork: Avoid assumptions
 - ☐ Ask about sex recorded at birth, gender identity, pronouns (and use them)
 - ☐ “Name of parent(s)”
 - ☐ Avoid salutations in letters (Mr., Miss, Ms.) – “Dear patient”
 - ☐ Attention to templates
- Add chosen name to other documents such as:
 - ☐ Patient instructions
 - ☐ Internal labels
 - ☐ Chart summary
- Bathrooms: Gender-neutral is ideal



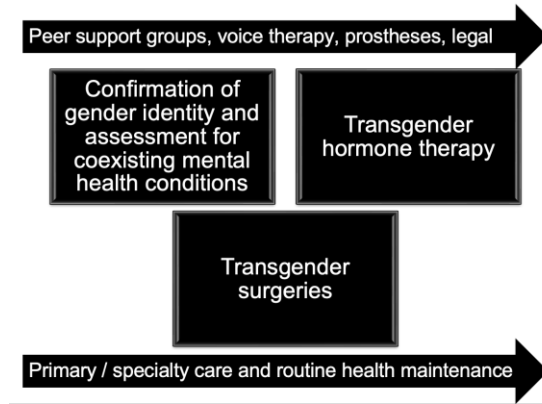
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Overview of gender-affirming care



Overview of gender-affirming care

Healthcare for TGD individuals

Peer support groups, voice therapy, prostheses, legal

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graph TD; A[Peer support groups, voice therapy, prostheses, legal] --> B[Confirmation of gender identity and assessment for coexisting mental health conditions]; A --> C[Transgender hormone therapy]; B --> D[Transgender surgeries]; C --> D; D --> E[Primary / specialty care and routine health maintenance];
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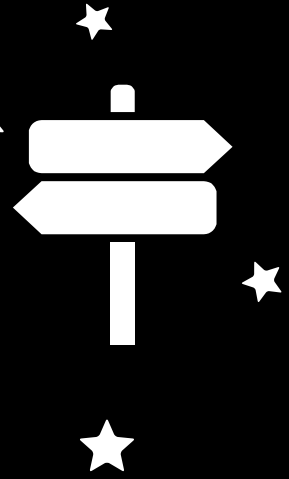
Confirmation of
gender identity and
assessment for
coexisting mental
health conditions

Transgender
hormone therapy

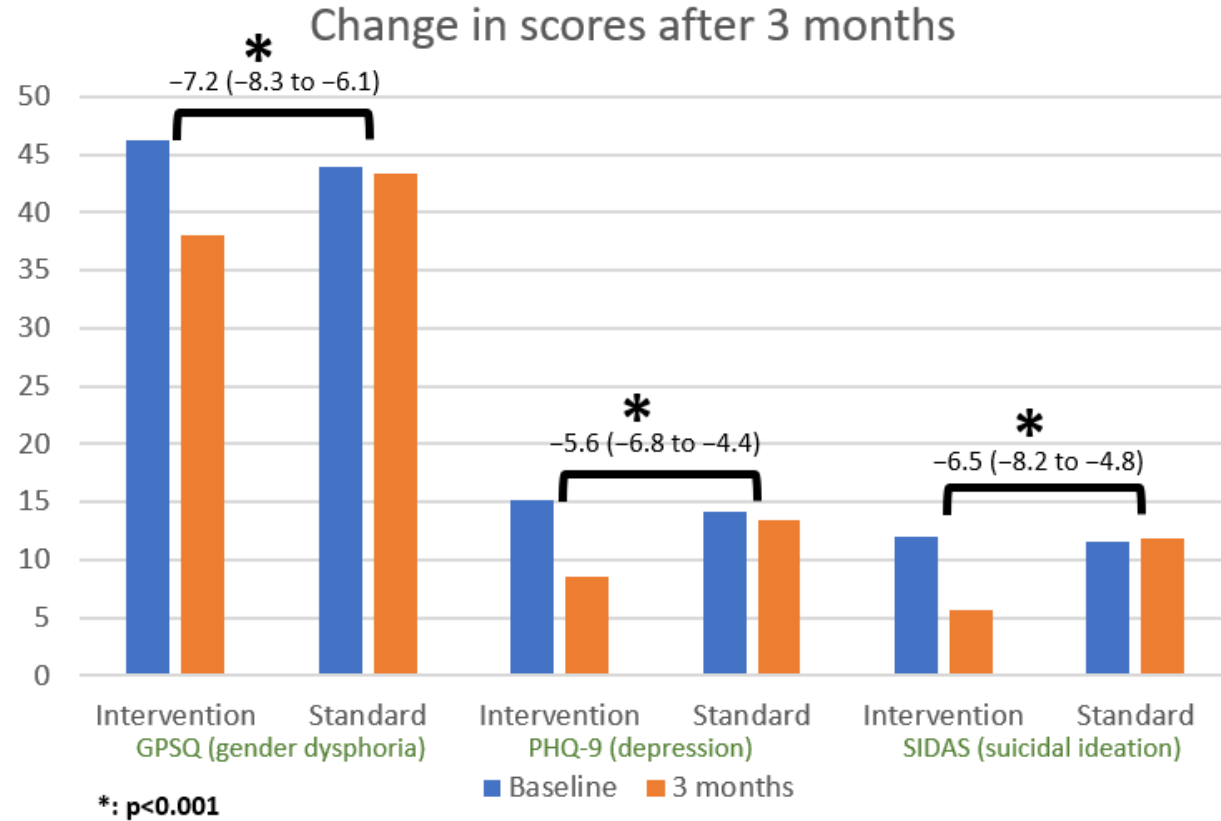
Transgender
surgeries

Primary / specialty care and routine health maintenance

Goal of transgender hormone therapy:



Help the patient affirm their gender identity
by promoting a physical appearance that is
more congruent with gender identity



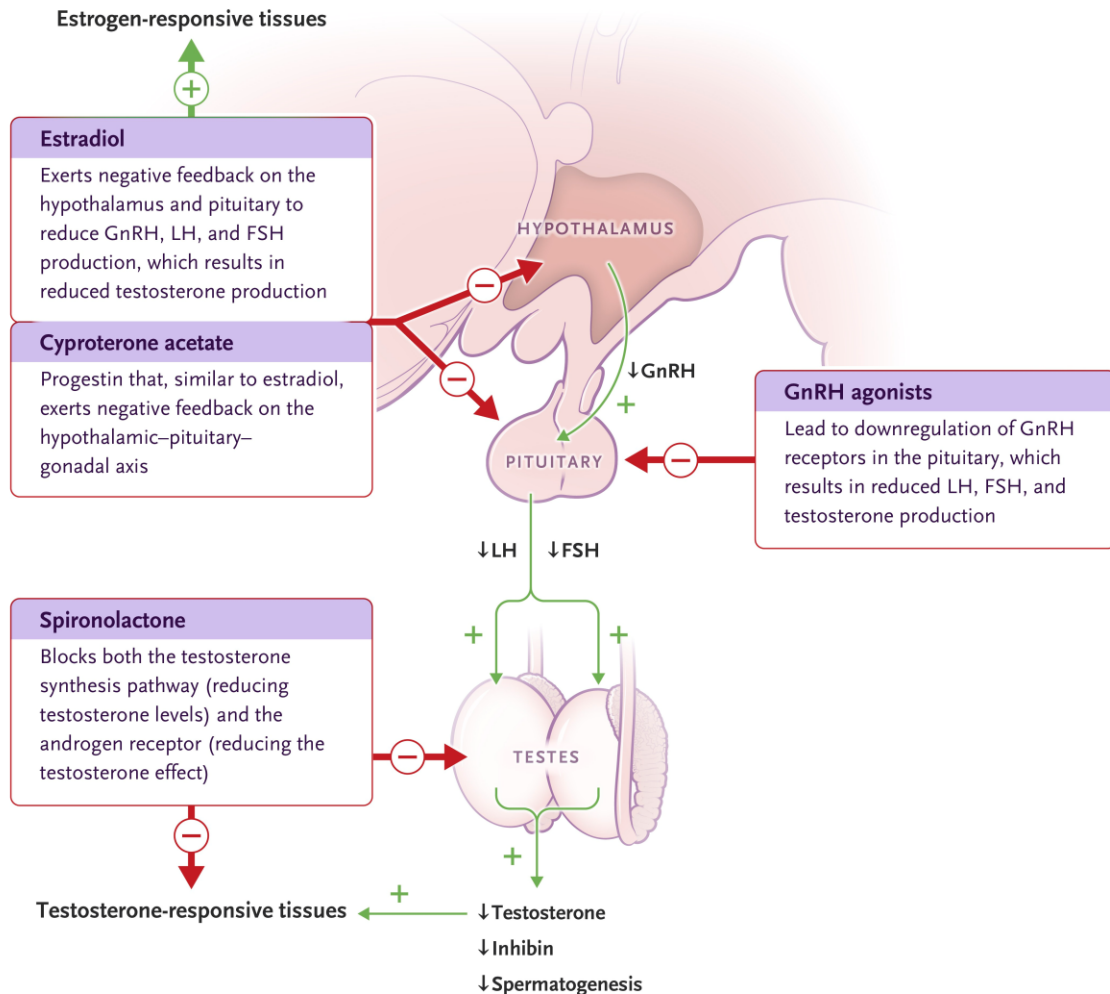
Pre-hormone medical evaluation

- Medical history for contraindications / risks
- Baseline labs
 - ☐ None?
 - ☐ My practice: CBC w/diff, CMP, phos, Mg, estradiol, testosterone, SHBG, 25-D, HIV, A1c, lipids, PSA (if prostate and age >40), hCG (if ovary/uterus)
- Obtain informed consent

Estradiol forms the foundation of hormone therapy for AMAB

- Tablet (1-2 mg BID), patches (100 mcg BIW), IM/SC (4 mg weekly) [gel/spray]
- Advantage over other estrogens (OCP): Can measure level, lower VTE risk
- Titrate to achieve target estradiol level - 150-300 pg/mL [some controversy / limitations]

Estrogen alone is usually not adequate therapy for AMAB



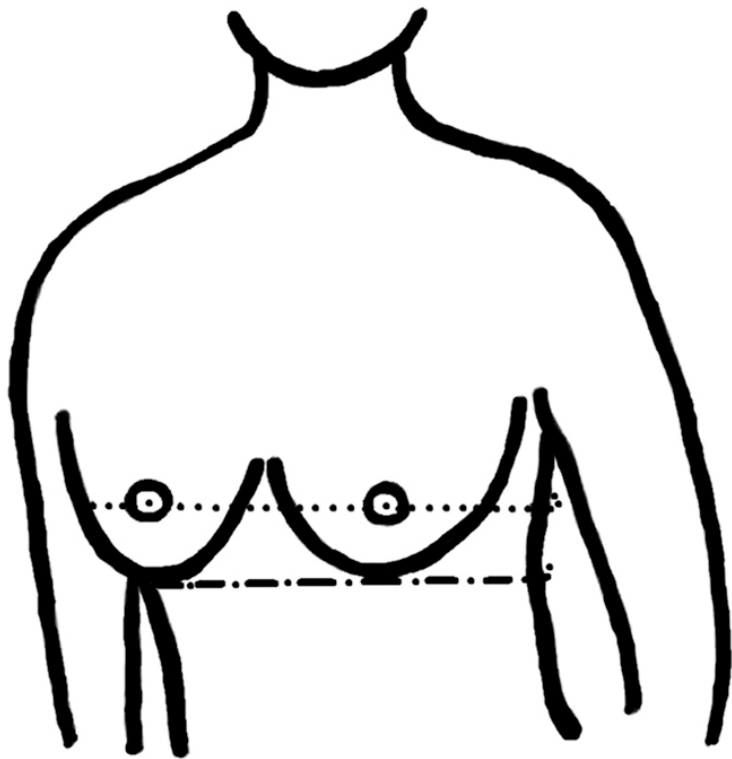
| Effect | | Onset | Maximum effect |
|---|----------------|-----------------------|---------------------|
| <u>Reversible</u> changes | | | |
| Body fat redistribution | | 3-6 months | 2-3 years |
| Decreased muscle mass / strength | | 3-6 months | 1-2 years |
| Softening of skin / decreased oiliness | | 3-6 months | Unknown |
| Decreased libido | | 1-3 months | 3-6 months |
| Decreased spontaneous erections | | 1-3 months | 3-6 months |
| Thinning and slowed growth of body / facial hair | | 6-12 months | > 3 years |
| Fully or partially <u>irreversible</u> changes | | | |
| Breast growth | | 3-6 months | 2-3 years |
| Decreased testicular volume | | 3-6 months | 2-3 years |
| Decreased sperm production | | Variable | > 3 years |
| Minimal / no change | | | |
| Androgenic alopecia | Stature/height | Facial bone structure | |
| Voice | Phallus | | |

Question:

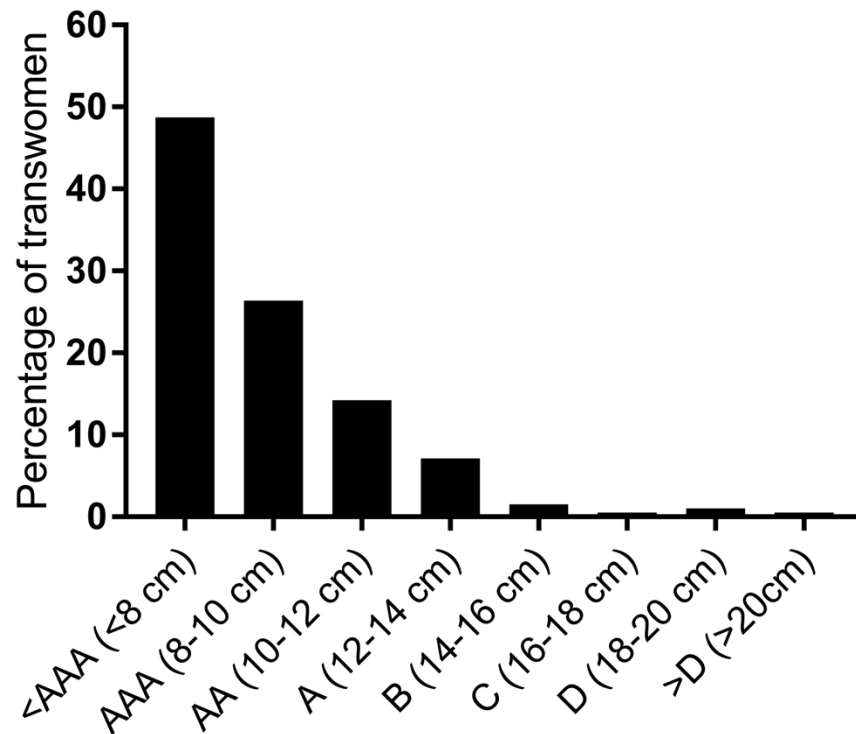
- A transgender woman you are following asks you what to expect regarding breast development after starting estrogen. Which one of the following statements is true regarding breast development in trans women after 1 year of estrogen therapy?
- a) Most women will have a B cup or larger breast size
- b) Pre-treatment normal BMI is associated with better breast development
- c) Higher achieved estradiol levels is associated with more breast development
- d) Adding progesterone will lead to larger breast size
- e) Surgical breast augmentation is usually needed to achieve desired breast size

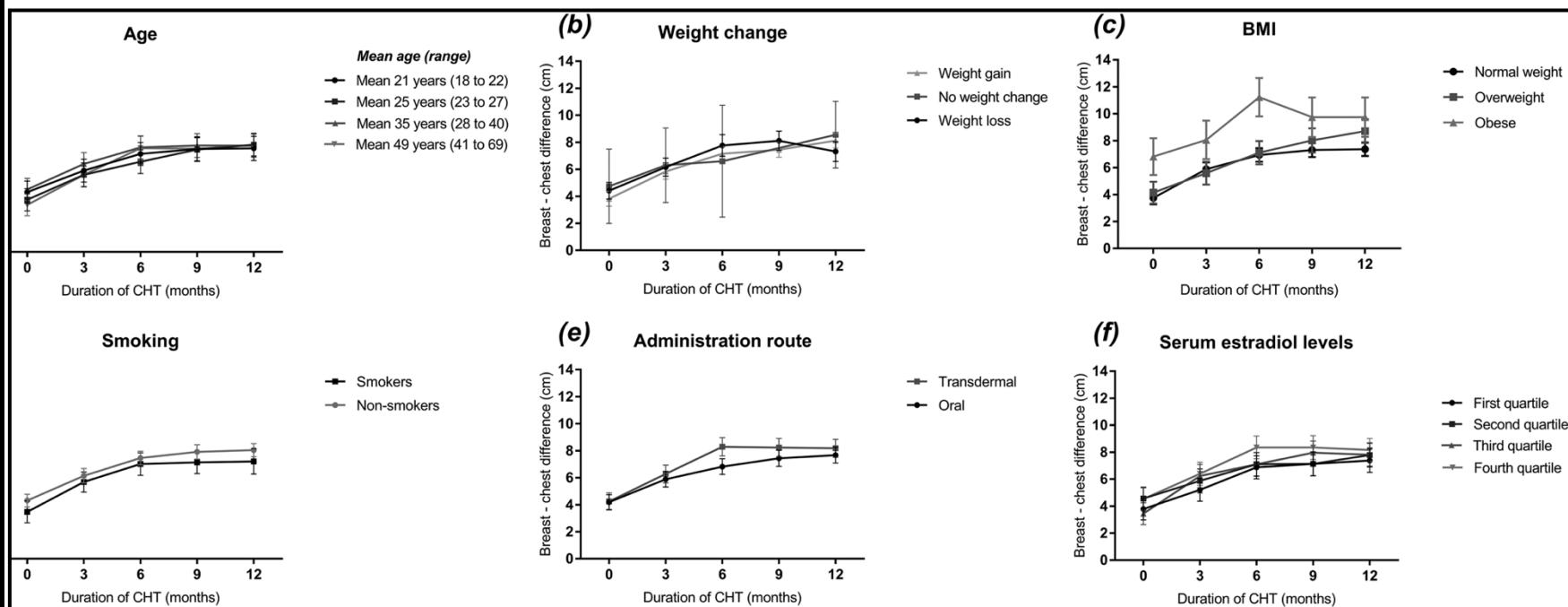
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Dotted line → fullest part of the breast
Dashed-dotted line → inframammary fold





No clinical or laboratory parameters can predict breast development

Side effects of estrogen-based hormone therapy are rare

- Estradiol: VTE, breast cancer.
- Spironolactone: Creatinine elevation, high K
- Leuprolide: Hypoandrogenic: Low libido, motivation

Testosterone is the mainstay of hormone treatment for AFAB

- Gel: [20.25-] 40.5 mg of 1.62% qAM
- IM/SC: 40 mg SC weekly
- Titrate dose to achieve levels in male reference range (400-700 ng/dL) – lower if less-than-complete masculinization is desired

| Effect | Expected onset | Maximum effect |
|---|-------------------|------------------|
| <u>Reversible</u> changes | | |
| Skin oiliness / acne | 1-6 months | 1-2 years |
| Increased muscle mass / strength | 6-12 months | 2-5 years |
| Body fat redistribution | 1-6 months | 2-5 years |
| Cessation of menses | 1-6 months | n/a |
| Vaginal atrophy | 1-6 months | 1-2 years |
| Fully or partially <u>irreversible</u> changes | | |
| Clitoral enlargement | 1-6 months | 1-2 years |
| Deepened voice | 6-12 months | 1-2 years |
| Facial / body hair growth | 6-12 months | 4-5 years |
| Scalp hair loss | 6-12 months | Variable |
| Minimal / no change | | |
| Breast size | Stature / height | |

Side effects of testosterone-based hormone therapy are rare

- Polycythemia, acne
- Aromatization to estrogen – concern if ER+ breast cancer, endometrial cancer

| Assessment | Estrogen-based therapy | Testosterone-based therapy |
|------------------------|--|--|
| Physical examination | Phenotypic changes, blood pressure, weight | Phenotypic changes, blood pressure, weight |
| Testosterone | If GnRHa: Female range (<50 ng/mL) | Mid-male range (400-700 ng/mL) |
| Estradiol | Mid-female range (150-300 pg/mL) | Consider – goal is male range (<55 pg/mL) |
| Side effect monitoring | Electrolytes if on spironolactone Prolactin every 1-2 years | CBC for erythrocytosis |
| | Consider lipid panel, HbA _{1c} | Consider lipid panel, HbA _{1c} |

Question

- A 22-year-old gender non-binary patient, assigned female at birth, asks you about medical options for gender affirmation. They are seeking a deeper voice and some redistribution of fat and muscle, not necessarily any hair growth, and overall aim for an androgynous appearance.
- Which one of the following interventions could be recommended to the patient?
 - A. Progestin-only IUD
 - B. Testosterone gel
 - C. Spironolactone
 - D. Tamoxifen
 - E. Micronized progesterone

Question

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Gender nonbinary patients can be offered similar interventions to gender binary individuals

- May need no medical intervention to express gender identity – rely on non-medical interventions
 - ☐ Clothing, hair style
 - ☐ Body hair (shaving vs. not)
 - ☐ Body building
 - ☐ “Packing” groin region
 - ☐ Make-up, jewelry
 - ☐ Gait, body language

Medical interventions in gender nonbinary individuals rely on principles from other conditions

- For AFAB:
 - ☐ IUD, continuous progestin to induce amenorrhea
 - ☐ Testosterone at lower doses, intermittent dosage?
- For AMAB:
 - ☐ Estrogen at lower doses, intermittent dosage?
 - ☐ Spironolactone?
 - ☐ Usually not GnRH analog (absolute suppression)
 - ☐ Consider “block and replace”

Healthcare for TGD individuals

Peer support groups, voice therapy, prostheses, legal

Confirmation of
gender identity and
assessment for
coexisting mental
health conditions

Transgender
hormone therapy

Transgender
surgeries

Primary / specialty care and routine health maintenance

Embodiment goals may require transgender surgeries

- For AFAB:
 - ☐ Mastectomy
 - ☐ Hysterectomy / oophorectomy
 - ☐ Reconstructive: Metoidioplasty, phalloplasty
- For AMAB:
 - ☐ Facial feminizing surgery
 - ☐ Breast augmentation
 - ☐ Orchiectomy
 - ☐ Reconstructive: Vaginoplasty, vulvoplasty
- Other procedures as indicated

Summary / Reflective statements

- Ensuring that spaces are welcoming and safe is the first step in ensuring that we as health care providers address the healthcare needs of transgender and gender-diverse patients
- Gender-affirming hormone therapy improves patient outcomes by aligning the patient's body to their gender identity
- Most of primary care to TGD people is similar to that provided to cis people, but awareness of the specific health needs of trans people is important to ensure that these are met

References

- **Hormone treatment:**
Endocrine Treatment of Gender-Dysphoric / Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline. Hembree et al, JCEM Nov 2017, 102(11):1-35.
- **Broader overview of transgender care:**
Standards of Care for the Health of Transgender and Gender Diverse People, Version 8, World Professional Association for Transgender Health
- <https://www.tandfonline.com/doi/pdf/10.1080/26895269.2022.2100644>
- **Additional training:**
<https://www.wpath.org/gei>
- **Primary care for transgender individuals:**
UCSF Center of Excellence for Transgender Health (<http://transhealth.ucsf.edu/>)
- **Creating an inclusive environment for LGBT patients:** The National LGBT Health Education Center (<https://www.lgbthealtheducation.org>)

Thank you!

