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Transgender Care 101: A "Primer" for the Primary Care Physician

Who we are…

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- Rita Lee, MD, Associate Professor, University of Colorado Denver, Associate Director for Community & Public Health/Epidemiology, Mentored Scholarly Activity Program, Course Director, LEADS Graduate Level Advocacy Elective

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Workshop format

- Getting on the same page
- Videos and small group breakout #1
- The “basics” of transgender care
- Cases, small group breakout #2
- Action plan

Some definitions…

Sex: biological and physiological characteristics that define "men" and "women" without regard to one's own identity

Gender identity: inherent sense of being male or female regardless of sex

Gender dysphoria: discomfort or distress caused by a discrepancy between gender identity and natal sex (DSM-V diagnosis)

Sexual orientation : the sex that a person is physically attracted to

Gender identity ≠ Sexual orientation

Unger, CA. Am J Obstet Gynecol 2014; 210(1): 16-26

Some definitions….

- Transgender
  - Individual who identify with the opposite sex rather than natal sex, who have not achieved reassignment to the desired sex

- Transsexual
  - Individual who desire reassignment and have committed to transitioning to the desired sex

Transition: a <u>process</u> that <u>some</u> transgender people undertake to live as a gender different from the one they were assigned at birth

Male to Female (MTF) - transgender women

Female to Male (FTM) - transgender men

Unger, CA. Am J Obstet Gynecol 2014; 210(1): 16-26
Grant JM. et al. National Transgender Discrimination Survey Report on Health and Health Care

Transgender care: Mental health

- Higher rates of depression, anxiety, suicidality
  - Rates of suicide are even higher in the veteran population
- Increased risk for substance abuse disorders
- Consider screening at regular visits

Clements-Nolle, K. et al. American Journal of Public Health, 91, 915-921

Transgender hormone therapy: principles

- Hormonal therapy improves quality of life and mental well-being

- Two main goals:
  - ***Reduce endogenous hormone levels*** and their associated sex characteristics
  - ***Replace with hormones of the preferred sex*** using doses and therapies typical for hypogonadal treatment

Hembree WC. et al J Clin Endocrinol Metab. 2009: 94(9):3132-3154.

Transgender hormone therapy: consent

- WPATH and Endocrine Society Guidelines
  - Diagnosis of gender dysphoria
  - Assessment and clearance by mental health professional
  - Real life experience
  - Informed consent – risks/benefits

- Informed Consent Model
  - Real-life experience and mental health assessment NOT necessary
  - Informed consent – risks/benefits

Only absolute contraindication: estrogen- or testosterone-sensitive cancer

Coleman E. et al. International Journal of Transgenderism, 13:165–232, 2011

Transgender hormone therapy

- Before starting:
  - Assess interest in child-bearing
  - Address medical conditions that can be exacerbated by hormonal depletion/therapy

Risk of adverse outcomes	Estrogen: Male to Female	Testosterone: Female to Male
Very high	Venous thromboemoblic disease	Breast or uterine cancer
		Erythrocytosis
Moderate to high	Macroprolactinoma	Severe liver dysfunction
	Severe liver dysfunction	
	Breast cancer	
	Coronary artery disease	
	Cerebrovascular disease	
	Severe migraine headaches	

Remember: The presence of these conditions does not preclude access to hormone therapy!

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Coleman E. et al. International Journal of Transgenderism, 13:165–232, 2011

Transgender hormone therapy: Male to Female

- What products and doses do I use?
  - *Reduce* endogenous hormones
    - Spironolactone 100-200mg/day
    - GnRH agonist 3.75mg sc monthly

Goal testosterone < 55ng/dL

  - *Replace* using doses typical for hypogonadism
    - Oral estradiol 2.0-6.0 mg/day
    - Transdermal estradiol patch: 0.1-0.4mg/24 h twice weekly
    - Parenteral estradiol valerate: 5-20mg IM every two weeks

Goal estrogen <200pg/mL

✓ Transdermal estrogen may be preferred in patients at increased risk of VTE
✓ Injectable estrogen may cause cyclical fluctuations in hormone levels
✓ Avoid supra-physiologic dosing!
✓ Progesterone not indicated

Hembree WC. et al J Clin Endocrinol Metab. 2009: 94(9):3132-3154.

Transgender hormone therapy: Male to Female

- How soon will the patient see changes?

Decreased libido
Decreased spontaneous erections

Initiation | 3 months | 6 months | 9 months | 12months

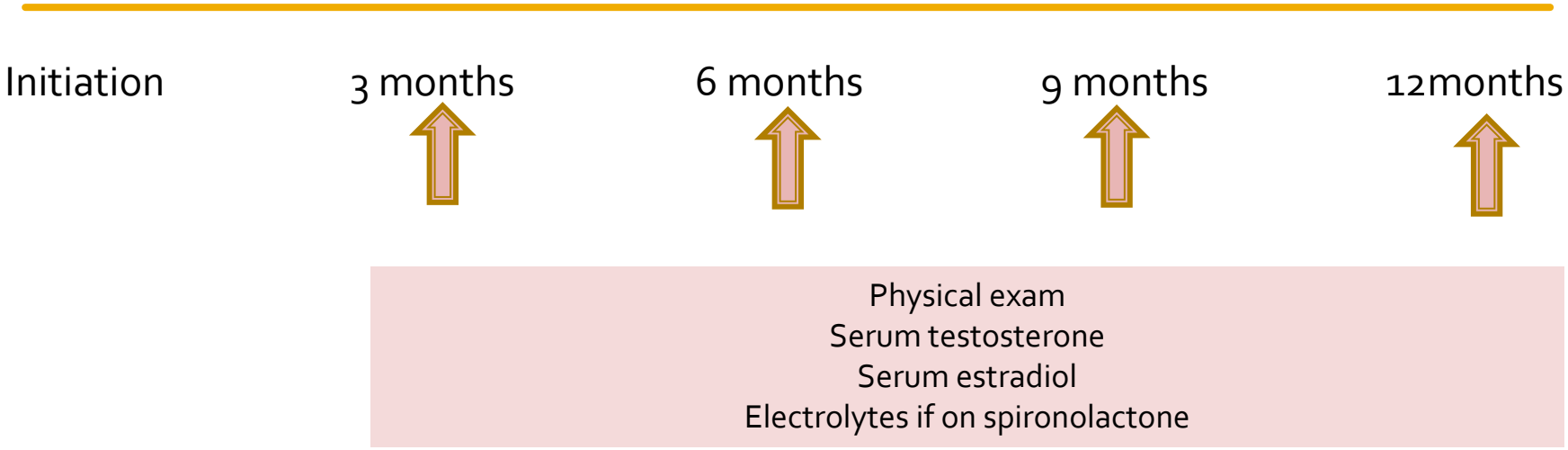
Redistribution of body fat
Decrease in muscle mass, strength
Softening of skin
Breast growth
Decreased testicular volume

Decreased terminal hair growth

Hembree WC. et al J Clin Endocrinol Metab. 2009: 94(9):3132-3154.

Transgender hormone therapy: Male to Female

- What should I monitor and how frequently?



Hembree WC. et al J Clin Endocrinol Metab. 2009: 94(9):3132-3154.

Transgender Hormone Therapy: Female to Male

- What products and doses do I use?
  - *Reduce* endogenous hormones and *replace* using doses typical for hypogonadism
    - Oral testosterone 160-240mg/d
    - Parenteral testosterone 100-300mg IM every 2 weeks
    - Transdermal gel 1% 2.5-10g/d
    - Testosterone patch 2.5-7.5mg/d
    - GnRH agonist 3.75mg sc monthly

Goal testosterone 350-700ng/dL

Goal estrogen <50pg/mL

✓ Transdermal products produce more consistent hormone levels

✓ Avoid supra-physiologic dosing!

Hembree WC. et al J Clin Endocrinol Metab. 2009: 94(9):3132-3154.

Transgender hormone therapy: Female to Male

- How soon will the patient see changes?

Acne
Fat redistribution
Cessation of menses

Initiation | 3 months | 6 months | 9 months | 12months

Clitoral enlargement
Vaginal atrophy

Facial/body hair growth
Scalp hair loss
Increased muscle mass/strength
Deepening of voice

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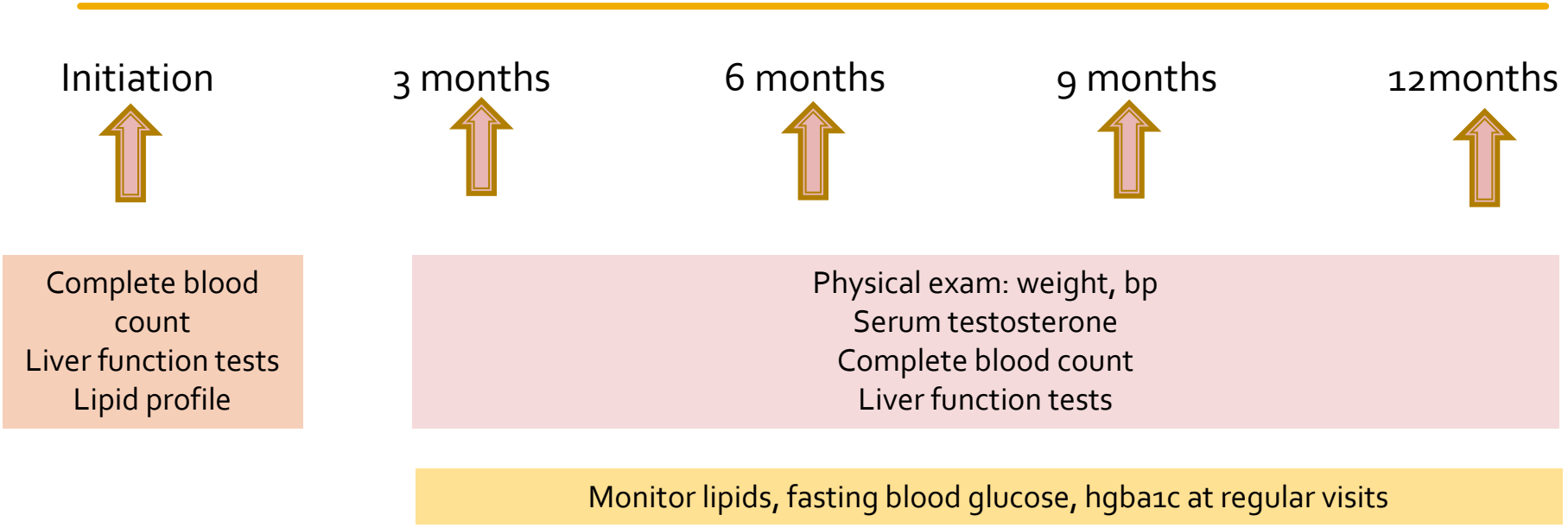
Transgender hormone therapy: Female to Male

- What should I monitor and how frequently?



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Transgender care: Surgical options

MALE TO FEMALE

- Breast augmentation
- Genital surgery
  - Penectomy
  - Orchiectomy
  - Vaginoplasty
  - Clitoroplasty
  - Vulvoplasty
- Feminizing procedures
  - Facial feminization
  - Voice surgery
  - Thyroid cartilage reduction

FEMALE TO MALE

- Mastectomy
- Genital surgery
  - Hysterectomy and salpingoopherectomy
  - Phalloplasty, scrotoplasty
  - Implantation of penile/scrotal prostheses
  - Vaginectomy
- Virilizing procedures
  - Voice surgery
  - Pectoral implants

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Transgender preventive care: Cancer screening

- "Screen what you have"
  - Cancer screening should be based on the patient's anatomy
  - Be aware that cervical and prostate cancer screening may cause significant anxiety
    - Emotional conflict between self-perception and physical anatomy may be heightened

J Gen Intern Med 2014: 29(5): 778-84

Transgender preventive care

Preventive care service	Male to Female	Female to Male
Breast cancer screening	If patient is at average risk, follow screening guidelines for biological women	If patient is at average risk, follow screening guidelines for biological women
Cervical cancer screening	NA	If patient is at average risk, follow screening guidelines for biological women
Prostate cancer screening	If patient is at average risk, follow screening guidelines for biological men	NA
Bone density testing	Consider if risk factors for osteoporotic fracture are present Screen low-risk patients at age 6o or if not consistently compliant with hormone therapy	Consider if risk factors for osteoporotic fracture are present Screen low-risk patients at age 6o or if not consistently compliant with hormone therapy

Hembree WC. et al J Clin Endocrinol Metab. 2009: 94(9):3132-3154.