Transgender and Gender Diverse Hormone Therapy

By the primary care provider

Checklist for starting gender-affirming hormones

FIRST 1-2 VISITS

May combine into one visit depending on provider/patient factors

[ ] Collect **gender history**; make diagnosis of gender dysphoria[1]
- [ ] **Ask patient goals**: What do they hope to achieve w/GAHT? e.g. interest in binary vs. nonbinary vs. genderfluid presentation
- [ ] Interest in surgery for gender affirmation? Refer as appropriate
- [ ] Fertility goals? Refer for preservation if desired
- [ ] Contraceptive needs? (GAHT is NOT birth control)[2]
- [ ] Interest in hair removal, speech therapy? Refer[3]

[ ] Complete a full **history & physical**
- [ ] Assess health conditions which might be influenced by GAHT: e.g. smoking (VTE risk for AMAB), DM, HTN, HLD, CAD, polycythemia, OSA
- [ ] Review meds for interactions
- [ ] Collect social and sexual health history; test & refer PRN
- [ ] Assess mental health needs and refer if appropriate

[ ] Obtain baseline labs (see Table: Labs)

[ ] Assess capacity for consent, and start informed consent process:
- [ ] Review risks and benefits, expected effects of GAHT
- [ ] Consent may be verbal or written (e.g. with a consent form).

[ ] Write first prescription (3-6 month supply) & needles (if needed)

FOLLOW-UP VISITS

***Suggested schedule:* FIRST year q3m, SECOND year q6m, then YEARLY**

[ ] Ask about physical changes & mood, patient experience with changes so far

See page 2 for expected time course of physical changes

[ ] Assess side effects. E.g. injection site reactions, and
- [ ] AFAB: acne, hair loss, genital dryness 2/2 atrophy (consider topical E)
- [ ] AMAB: dizziness/hypotension from spiro (consider alternate blocker)

[ ] Check blood pressure, labs (see Table: Labs)

[ ] Adjust GAHT dosing as needed (see Table: Hormone dosing)

Routine primary care
- [ ] Assess health conditions which might be influenced by GAHT: e.g. smoking (VTE risk for AMAB), DM, HTN, HLD, CAD, polycythemia, OSA
- [ ] Interest in surgery for gender affirmation? Refer PRN
- [ ] Fertility goals? Refer for preservation PRN
- [ ] Contraceptive needs? (GAHT is NOT birth control)[2]
- [ ] Interest in hair removal, speech therapy? Refer[3]
- [ ] Health maintenance (screen organs that are present; see Table: HM)

Quick Guide: Gender Affirming Hormone Therapy

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Labs. Check at midcycle (halfway b/t injections - if using injectable GAHT)

Baseline: CBC, CMP, estradiol, total Testosterone, lipids, a1c

Follow-up: CBC, CMP, estradiol, total Testosterone. (Lipids and a1c per USPSTF)

FEMINIZING: goal E 100-200pg/mL; T < 55. **MASCULINIZING:** goal T 400-700ng/dL

Reference ranges from Endocrine Society. Some guidelines list higher targets.
Lower targets may be appropriate depending on individual patient goals.

Feminizing doses: AMAB

Lower doses may be appropriate based on individual patient goals.

ANTI-ANDROGEN:

Spironolactone (most common)
50mg bid to start. Titrate up by 50 mg q3 months PRN. Max dose 200mg bid

Alternatives:
finasteride (adjuvant only), leuprolide (expensive), bicalutamide (rarely 2/2 hepatotoxicity risk)

+ FEMINIZING

Estradiol: *Topical has lowest VTE risk.*
PO: 2 mg daily to start. Max 6-8 mg/day. Split bid for 4+ mg. Titrate by 2 mg q3m.
Topical: patch 0.1mg 2x/week. Titrate 0.1mg q3m. Max 0.4mg 2x/week.
Injectable (IM or sub Q): E cypionate or E valerate 2-10 mg/wk or 5-30 mg/ 2 weeks
***(optional)* Progesterone** for breast development; mixed evidence. May add-on at 1-2 yrs. Prometrium 100-200 mg daily.

Masculinizing doses: AFAB

Lower doses may be appropriate based on individual patient goals.

TESTOSTERONE cypionate[4]
Injectable (IM or subQ): typical starting: 50 mg/wk. Low dose (nonbinary): 25 mg/wk. Max dose 100 mg/wk

OR

Transdermal gel **Androgel** 50 mg daily to start (low dose 25 mg daily)
other options: fortesta 2%, axiron, testim

OR

Transdermal patch **Androderm** 2-4 mg daily to start (1-2x2mg patches). Titrate by 2mg q3m. Max 8mg/day

needles: 18G 1 ½" to draw up & 1 mL 25G 5/8" to inject (subQ) OR 3 mL 23G 1-1.5" to inject (IM)

Health Maintenance		Indication
Mammogram	AMAB	If > 50 yo & 5+ yrs feminizing hormones
	AFAB	If > 50 and no prior mastectomy
Prostate Ca	AMAB	50-69 yo: PSA w/informed consent discussion (nL <1.0)
Cervical Pap	AFAB	21-65 yo: If no hysterectomy
DEXA (bone density)	Trans+	- At 65 yo in everyone. - At 50-64 yo if risk factors - At any age if 5+yrs without GAHT & h/o gonadectomy
Vaccines	Trans+	Based on detailed discussion of sexual practices + anatomy of patient & partners
STI screening		
PrEP		

GAHT = Gender Affirming Hormone Therapy. AMAB = assigned male at birth. AFAB = assigned female at birth. T = testosterone. E = estradiol. [1] In many countries gender incongruence is considered sufficient for initiation of GAHT, rather than a diagnosis of gender dysphoria. [2]Birth control options that won't interfere with masculinization for AFAB people include progesterone-based options such as IUD (intrauterine devices) or depot injections. [3]Insurance coverage is variable. [4]Injectable testosterone is often most affordable option.

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Definition of Gender Dysphoria

A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months' duration, as manifested by at least 2 of the following:

1. Marked incongruence b/t one's experienced/expressed gender and 1°, 2° sex characteristics
2. Strong desire to be rid of one's 1°, 2° sex characteristics bc of marked incongruence
3. Strong desire for the 1°, 2° sex characteristics of another gender
4. Strong desire to be of another gender
5. Strong desire to be treated as another gender
6. Strong conviction that one has the typical feelings and reactions of another gender

Condition is associated with clinically significant distress or impairment in social, occupation, or other important areas of functioning

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Arlington, VA, American Psychiatric Association, 2013.

This guide is for use in the day-to-day practice of a primary care provider. It does NOT cover every scenario. We recommend the following in-depth resources for gender-affirming primary care.

Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People. UCSF. *Comprehensive guidelines for a variety of primary care scenarios, including hormone dosing, management of common post-operative complications.*

Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline. Endocrine Society. *Comprehensive guidelines for hormone management and titration.*

Protocols for the Provision of Hormone Therapy. Callen-Lourde. *Step-by-step instructions for beginning hormone therapy. Includes common hormone dosing*

TransLine Hormone Therapy Prescriber Guidelines. TransLine. *Quick reference for common hormone doses and forms of administration.*

Standards of Care for the Health of Transgender and Gender Diverse People, Version 8. WPATH SOC8. *Overarching discussion of the scope of gender-affirming care, and establishes standards for readiness for hormones and surgery. Many insurance companies follow these guidelines to determine coverage requirements*

Transline: Transgender Medical Consultation Service

Clinician-facing consultation line for care of transgender patients. Providers can submit questions about transgender care which are answered by experts.

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Expected time course of ESTRADIOL (+ androgen blockade)

Effect	Expected onset	Expected maximum effect
Body fat redistribution	3-6 months	2-5 years
Decreased muscle mass/strength	3-6 months	1-2 years
Softening of skin/decreased oiliness	3-6 months	Unknown
Decreased sexual desire	1-3 months	Unknown
Decreased spontaneous erection	1-3 months	3-6 months
Decreased sperm production	Unknown	2 years
Breast growth	3-6 months	2-5 years
Decreased testicular volume	3-6 months	Variable
Decreased terminal hair growth	6-12 months	> 3 years
Increased scalp hair	Variable	Variable
Voice changes	None	None

Source: Standards of Care for the Health of Transgender and Gender Diverse People, Version 8.

Expected time course of TESTOSTERONE

Effect	Expected onset	Expected maximum effect
Skin oiliness/acne	1-6 months	1-2 years
Facial/body hair growth	6-12 months	>5 years
Scalp hair loss	6-12 months	>5 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	1-2 years
Clitoral enlargement	1-6 months	1-2 years
Vaginal atrophy	1-6 months	1-2 years
Deepening of voice	1-6 months	1-2 years

Source: Standards of Care for the Health of Transgender and Gender Diverse People, Version 8.

Quick Guide to GAHT is available at: https://bit.ly/GAHT-QUICK-GUIDE

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