University of California, Santa Barbara

Student Health

Masculinizing Hormone Therapy Checklist

UCSB Student Health policy is to optimize accessibility of transition care without sacrificing quality of care. The following checklist is intended to guide the prescription process to ensure that the patient is well-informed about their personal risk, the options and resources available to them, and how the process of medical transition works. This advising process is intended to empower patients to make the best decision for themselves and assess the patient's ability to provide informed consent (UCSF's standards are "able to understand risks, benefits, alternatives, unknown, limitations, and risks of no treatment"); the process should be as transparent as possible.

- ☐ Answer any questions the patient has about medical transition. FAQ handouts are available. The informed consent form can also be a useful tool for initial counseling.
- ☐ Take a baseline metabolic panel. This will make it possible to evaluate risk to kidneys and liver, and to track hormone levels—metabolic panels are typically reassessed at 3 months, 6 months, and annually thereafter.
  Patient is usually asked to fast 10-12 hours before collection.
- ☐ Screen for contraindicating factors:
  - **Pregnancy**
  - **Uncontrolled coronary artery disease**
  - Acne
  - Smokes cigarettes
  - Blood clots
  - High cholesterol
  - Liver disease
  - High red blood cell count
  - Allergies to sesame seed or cotton seed
- ☐ Discuss complicating social factors:
  - Is the patient out to family, friends, partner, employer, or instructors? Is there a plan to come out? How does the patient think people will respond to the news?
  - Does the patient depend on parents financially? Is there a fear of financial support diminishing as a result of transition? Does the patient have a plan in this case?
  - Is the patient seeing a therapist? This is not required but if no, recommend short-term therapy during medical transition.
  - Does the patient have any fears or worries associated with transitioning or beginning hormones?
- ☐ Review informed consent document with patient, incorporating evaluation from metabolic panel, family history, and any other relevant screenings. This document does not have to be signed, but should be reviewed carefully prior to starting hormones to

ensure that the patient has an accurate sense of what hormone therapy entails. The patient should receive a copy of the informed consent form.

- ☐ Discuss delivery options:
    - Injection: this is the most common option. It is inexpensive and avoids some of the concerns of creams and gels. Usually administered every week or every other week. The relatively long periods between doses can lead to mood swings. Switching to a more frequent injection schedule (with lower doses each injection) can help.
    - Transdermal Cream/Gel: the most common option for people who are inclined to avoid needles. However, cream and gel are more expensive than injectable testosterone and must be used more often, usually daily. Can be transferred to partners or pets via direct skin contact, so care must be taken to avoid this.
    - Transdermal patches: usually changed once or twice a week, must be worn all the time
    - Injection: inexpensive, but harder to keep estrogen levels stable (which can increase certain side effects)
    - Less-common options include sublingual/buccal tablets, subcutaneous pellets, and oral testosterone. Testosterone undecanoate is the only oral testosterone safe for use in transition care; methyltestosterone should never be used due to the high rate of liver damage.
- ☐ Begin prescribing. UCSF dosing recommendations attached.
- ☐ Follow-up appointments (3mo, 6mo, then annual):
    - Evaluate changes in testosterone and estrogen levels
    - Monitor risk factors identified in previous appointments
    - Inquire about ongoing social risk factors and recommend resources as appropriate
    - UCSF follow-up guidelines attached.

More information on masculinizing therapy can be found in the UCSF Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People:

http://transhealth.ucsf.edu/trans?page=guidelines-masculinizing-therapy

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]

a. Available as standard U.S. Pharmacopia (USP) as well as compounded products.

b. Initial - low dose recommended for genderqueer and nonbinary dosing.

c. Maximum dosing does not mean maximal effect. Furthermore, these dosage ranges do not necessarily represent a target or ideal dose. Dose increases should be based on patient response and/or monitored hormone levels. Some patients may require less than this amount, and some may require more.

d. Doses of less than 20.25mg with 1.62% gel, or less than 30mg with 2% axillary gel may be difficult, since measuring one-half of a pump or packet can present a challenge. Patients requiring doses lower than 20.25mg and whose insurance does not cover 1% gel may require prior authorization or an appeal.

e. Testosterone creams are prepared by individual compounding pharmacies. Specific absorption and activity varies and consultation with the individual compounding pharmacist is recommended.

f. Testosterone undecanoate has been used extensively for transgender care outside of the U.S. for many years.[2,3] It has recently become available in the U.S. Testosterone undecanoate has been associated with rare cases of pulmonary oil microembolism and anaphylaxis. As such in the United States, the drug is available only through a restricted program called the AVEED Risk Evaluation and Mitigation Strategy (REMS) Program. All injections must be administered in an office or hospital setting by a trained and registered health care provider and monitored for 30 minutes afterwards for adverse reactions.

Therapy	Comments	Baseline	3 months*	6 months*	12 months*	Yearly	PRN
Lipids	No evidence to support lipid monitoring at any time; use clinician discretion	Based on USPSTF guidelines					X
A1c or fasting glucose	No evidence to support lipid monitoring at any time; use clinician discretion	Based on USPSTF guidelines					X
Estradiol							X
Total Testosterone			X	X	X		X
Sex Hormone Binding Globulin (SHBG)**			X	X	X		X
Albumin**			X	X	X		X
Hemoglobin & Hematocrit		X	X	X	X	X	X

* In first year of therapy only;

** is optional and may be helpful in complex cases (see text) Used to calculate bioavailable testosterone; monitoring bioavailable testosterone