FTM Transition Notes

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Current core references remain **WPATH SOC8**, the **Endocrine Society guideline**, and practical protocols such as **UCSF Transgender Care**; these all emphasise informed consent, fertility/reproductive counselling, physiologic testosterone replacement rather than supraphysiologic dosing, and structured monitoring.

1. Therapeutic frame

Domain	Specialist-level approach	Common pitfalls
Treatment goal	Induce/maintain male-range secondary sex characteristics, suppress menses where desired, reduce dysphoria, and maintain long-term bone/cardiometabolic health. Testosterone should be titrated to **physiologic adult male range**, not bodybuilding/anabolic levels.	Chasing faster virilisation with supraphysiologic testosterone; this increases adverse effects without reliable additional masculinisation once male-range levels are reached.
Consent / readiness	Confirm marked and sustained gender incongruence where diagnosis is required, capacity for informed consent, exclusion of alternative drivers, assessment of mental/physical conditions affecting outcomes, and discussion of reproductive effects. WPATH SOC8-based adult criteria include capacity, assessment of comorbidities, and fertility discussion.	Treating consent as a form rather than a documented clinical conversation; failing to discuss irreversible changes and fertility before first dose.
Irreversible / partly irreversible effects	Voice deepening, facial/body hair, clitoral growth, and androgenic alopecia may be irreversible or partly irreversible. Fat redistribution, muscle mass, libido, acne, vaginal atrophy, and menses may partly reverse after stopping.	Assuming testosterone is a “trial” with no permanent effects; conversely, assuming all effects are guaranteed or predictable.
Fertility / contraception	Testosterone may reduce fertility and suppress menses, but **does not reliably prevent ovulation or pregnancy**. CDC states testosterone has not been studied as contraception and may be teratogenic; offer contraception when pregnancy is possible and undesired.	“Amenorrhoea = contraception”; not checking pregnancy risk before dose escalation or when bleeding/pelvic pain occurs.
Scope of therapy	Testosterone is the main masculinising agent. Routine anti-oestrogen therapy is not standard. Adjuncts may be used for persistent bleeding, contraception, acne, alopecia, vaginal atrophy, or pelvic pain.	Adding aromatase inhibitors or progestogens reflexively without checking testosterone level, pregnancy risk, structural AUB causes, or adherence.

2. Baseline assessment before prescribing

Area	High-yield history / exam / tests	Why it matters
Gender goals	Desired pace and extent of masculinisation; binary vs nonbinary goals; priority effects such as voice, menses suppression, hair, body composition; tolerance for acne/alopecia/genital changes.	Dose can be conventional, slow-titrated, or intentionally lower/intermediate; counselling prevents later mismatch between expectations and physiology.
Reproductive inventory	Uterus/cervix/ovaries present? Prior hysterectomy/oophorectomy? Menses pattern, AUB, dysmenorrhoea, endometriosis, PCOS, fibroids. Sexual practices and pregnancy potential.	Determines pregnancy testing, contraception, cervical screening, AUB workup, and need for menstrual suppression. Persistent bleeding after 6–12 months of male-range testosterone warrants evaluation.
Fertility planning	Desire for genetically related children, oocyte/embryo cryopreservation, ovarian tissue options, timing, affordability, dysphoria implications of stimulation.	Fertility preservation is ideally discussed before GAHT; oocyte/embryo cryopreservation is established, though FP after testosterone is possible with limited outcome data.
Cardiometabolic risk	BP, BMI/waist, smoking/vaping, diabetes, dyslipidaemia, CAD/CVA, thrombophilia, family premature CVD, OSA symptoms.	Testosterone may worsen erythrocytosis, BP, lipids, weight, acne, and sleep apnoea; cardiovascular outcome data in trans men remain limited.
Mental health / neuro	Current mood disorder, suicidality, bipolar disorder, psychosis, trauma, eating disorder, substance use, migraine pattern.	Testosterone is not clearly causative of mental-health deterioration and may improve dysphoria-related distress, but cyclic peaks/troughs can worsen mood or migraine in some patients.

Area	High-yield history / exam / tests	Why it matters
Malignancy	Personal history of breast, ovarian, endometrial, cervical cancer; family cancer syndromes; current chest/cervical screening status.	Active sex-hormone-sensitive malignancy is generally a contraindication or requires oncology input; retained organs require anatomy-based screening.
Baseline labs	FBC/Hb/Hct; total testosterone; LFTs; lipids and HbA1c/fasting glucose according to risk; pregnancy test if pregnancy possible; STI testing as indicated. Estradiol, SHBG/albumin, LH/FSH only if clinically useful.	FBC is essential because erythrocytosis is the main testosterone-specific safety signal. UCSF recommends testosterone and H/H monitoring during titration, with metabolic labs according to general preventive-care risk.
Baseline exam	BP, weight, acne/alopecia, cardiopulmonary exam if indicated, liver disease signs, OSA screen, chest/breast and pelvic exam only when clinically indicated and acceptable.	Avoid unnecessary genital exams. For pelvic pain/AUB, history is central and examination should be trauma-informed; transabdominal ultrasound may be preferable when transvaginal imaging is unacceptable.

3. Testosterone regimens

Doses below are common adult ranges; formulary availability and controlled-drug rules vary by jurisdiction. Endocrine Society lists testosterone cypionate/enanthate, undecanoate, gel, and patch options; UCSF gives practical low/typical/max titration ranges.

Medication / route	Typical adult dosing strategy	Advantages	Key risks / pitfalls
Testosterone cypionate or enanthate IM or SC	Low: ~20 mg weekly. Typical: ~50 mg weekly. Usual max: ~100 mg weekly. Alternative: 100–200 mg every 2 weeks, though weekly or split dosing is often smoother.	Cheap, effective, flexible titration. SC route often better tolerated than IM and avoids long-term IM scarring.	Peaks/troughs causing mood swings, migraine, pelvic cramping, acne, erythrocytosis. Fortnightly high-dose injections increase fluctuation. Measure level mid-cycle or use peak/trough if symptomatic.
Testosterone undecanoate long-acting IM	Endocrine Society: 1000 mg initially, 6 weeks later, then every 12 weeks; UCSF notes US AVEED regimen 750 mg, repeat at 4 weeks, then every 10 weeks.	Stable levels, less frequent dosing, useful for adherence or needle burden.	Less flexible titration; rare pulmonary oil microembolism/anaphylaxis with some formulations requiring monitored administration; not ideal early if rapid dose adjustment needed.
Testosterone gel 1% / 1.62% / axillary gel	1% gel: 12.5–25 mg daily low, 50 mg typical, 100 mg max. 1.62% gel: 20.25 mg low, 40.5–60.75 mg typical, ~103 mg max. Axillary 2%: 30 mg low, 60 mg typical, 90–120 mg max.	Smooth levels; useful for mood/migraine/erythrocytosis risk; easy to stop.	Skin transfer to partners/children; variable absorption; cost; slower amenorrhoea in some; must apply correctly and avoid contact until dry/covered.
Patch	Endocrine Society lists 2.5–7.5 mg/day.	Smooth pharmacokinetics.	Dermatitis, availability issues, often less preferred.
Low-dose / gradual masculinisation	Start with low weekly injection or low daily gel; titrate by goals, clinical response, and safety labs.	Appropriate for cautious initiation, nonbinary goals, older patients, migraines, autoimmune disease, cardiometabolic risk.	Under-dosing after gonadectomy can compromise bone health; persistent bleeding may reflect inadequate androgen effect or other pathology.
Avoid	Oral methyltestosterone, illicit anabolic steroids, supraphysiologic “stacking,” non-prescribed preparations.	—	Hepatic/toxicologic risk, uncontrolled erythrocytosis, lipid/BP effects, contamination, medicolegal risk. UCSF notes current prescribed testosterone preparations are bioidentical, unlike older oral synthetic androgens.

4. Monitoring and titration

Parameter	Schedule	Target / action	Pitfalls
Clinical review	Every ~3 months in first year; then 1–2 times yearly once stable per Endocrine Society. UCSF considers annual review reasonable once stable and in target range.	Assess virilisation, menses, adverse effects, injection/gel technique, mood, libido, acne, alopecia, BP, weight, pregnancy risk.	Lab-only management; failing to ask about cyclic symptoms relative to injection day.

Parameter	Schedule	Target / action	Pitfalls
Total testosterone	During titration at ~3 and 6 months; Endocrine Society suggests every 3 months until in range.	Aim physiologic adult male range. Endocrine Society gives mid-injection target around **400–700 ng/dL** for cypionate/enanthate; interpret using local lab range and timing.	Drawing a random level and overcorrecting; increasing dose above male range for “slow changes”; ignoring low trough symptoms.
Timing of testosterone level	Cypionate/enanthate: mid-cycle usually sufficient; peak/trough if cyclic symptoms. Undecanoate: just before next injection. Gel: after at least 1 week of daily use, at least 2 hours after application.	Adjust dose, interval, or route.	Misinterpreting a peak as steady-state; missing poor absorption with gel.
Hb/Hct	Baseline; 3, 6, 12 months; then yearly or 1–2 times yearly depending protocol/risk.	Use male upper reference range once amenorrhoeic and on male-range testosterone. Investigate true erythrocytosis; consider dose reduction, shorter interval, switch to transdermal, OSA/smoking evaluation.	Treating female-range “high” flags as pathology when within male range; missing true Hct elevation because lab flags are sex-marker dependent.
Hct thresholds	Endocrine transgender guideline flags Hct >50% as very high-risk context; general testosterone guidelines commonly intervene at Hct ≥54% by holding/reducing testosterone and evaluating hypoxia/OSA.	If Hct ≥54%: hold or reduce testosterone, evaluate OSA/hypoxia/smoking/dehydration, consider phlebotomy when clinically appropriate, restart lower/smoother regimen.	Repeated phlebotomy without correcting supraphysiologic peaks or OSA.
BP, weight, lipids, HbA1c	Baseline and according to general cardiometabolic risk; Endocrine recommends BP, weight, and lipids at regular intervals.	Manage by standard CVD/diabetes guidelines.	Attributing all weight/BP/lipid changes to testosterone while missing lifestyle, OSA, diabetes, thyroid disease, antipsychotics.
LFTs	Baseline and if risk, symptoms, high dose, liver disease, or nonstandard androgen use.	Significant transaminitis should prompt review of dose, formulation, alcohol, viral hepatitis, fatty liver, anabolic steroid exposure.	Overstating hepatic risk of standard injectable/transdermal testosterone; understating risk of oral/illicit anabolic steroids.
Bone health	DXA if hypogonadal state, stopped testosterone after gonadectomy, poor adherence, prolonged amenorrhoea without adequate sex steroid, eating disorder, glucocorticoids, or other osteoporosis risk. Endocrine recommends osteoporosis screening in those who stop or are nonadherent to testosterone or have bone-loss risk.	Maintain adequate sex steroid after oophorectomy.	Assuming no ovarian function + no testosterone is safe long term.
Cancer screening	Anatomy-based: cervix if present; breast/chest tissue according to surgical status and residual tissue; uterus/ovaries if present and symptomatic/risk-based. Endocrine notes cervical monitoring if cervical tissue is present and breast/chest screening depending mastectomy status.	Use trauma-informed, affirming pathways.	Removing patients from cervical/breast recall solely because gender marker is male.

5. Expected masculinising effects

Effect	Usual onset	Maximum / plateau	Reversibility / notes
Skin oiliness / acne	1–6 months	1–2 years	Often peaks in first year; manage as acne vulgaris, but first check testosterone peaks.
Cessation of menses	1–6 months	Variable	Expected within ~6 months on physiologic dosing; persistent bleeding requires pregnancy risk assessment, testosterone level review, and AUB differential.
Libido increase	1–6 months	Variable	May fluctuate with injection peaks/troughs.
Fat redistribution	1–6 months	2–5 years	Partly reversible if testosterone stopped.
Muscle mass / strength	6–12 months	2–5 years	Training/nutrition strongly modify effect.
Facial/body hair	6–12 months	4–5 years	Genetics dominate; partly irreversible.
Voice deepening	6–12 months	1–2 years	Usually irreversible; voice therapy may help resonance/strain but not reliably reverse pitch.

Effect	Usual onset	Maximum / plateau	Reversibility / notes
Clitoral growth	1–6 months	1–2 years	Often irreversible or partly irreversible.
Vaginal/genital atrophy	1–6 months	1–2 years	Can cause dryness, dyspareunia, urinary/vaginal symptoms; local oestrogen has minimal systemic absorption and generally should not block masculinisation.
Scalp hair loss	6–12 months	Variable	Androgenetic; genetic risk. Finasteride/minoxidil may help but 5-alpha-reductase blockade early in transition may blunt some DHT-mediated effects.

6. Risks, complications, and management

Complication	Risk factors / presentation	Specialist management	Pitfalls
Erythrocytosis / polycythaemia	Injectable regimens, high peaks, smoking, OSA, COPD, dehydration, supraphysiologic dosing. Headache, flushing, pruritus, thrombosis symptoms rarely.	Check testosterone level including peak if injectable; reduce dose, shorten interval, switch transdermal, treat OSA/smoking; consider venesection/phlebotomy acutely if high-risk or markedly elevated.	Using repeated phlebotomy as the only strategy; ignoring sleep apnoea.
Acne	First year, high peaks, adolescent history, occlusion/binding.	Benzoyl peroxide/topical retinoid/topical antibiotic; oral doxycycline; isotretinoin for severe cystic acne with pregnancy prevention where relevant. Consider smoother testosterone delivery.	Reducing testosterone prematurely when standard acne therapy would suffice; missing pregnancy precautions for isotretinoin.
Androgenic alopecia	Family history, higher DHT sensitivity.	Topical minoxidil; finasteride 1 mg/day may be considered after counselling.	Starting high-dose finasteride/dutasteride early may reduce DHT-mediated masculinisation and libido.
Mood lability / irritability	Peaks/troughs, bipolar disorder, trauma, substance use, sleep disturbance.	Evaluate broad differential; reduce injection interval, lower peak dose, or switch gel; treat psychiatric comorbidity.	Assuming testosterone “causes aggression”; missing bipolar activation, PTSD, substance use, or sleep apnoea.
Migraine	Hormonal fluctuation, oestrogen sensitivity, injection peaks/troughs.	Slow titration; prefer transdermal or shorter injection interval; standard migraine prophylaxis if needed.	Fortnightly high-dose injections in hormonally sensitive migraine.
Hypertension / lipid changes / weight gain	Baseline obesity, insulin resistance, smoking, OSA, family risk.	Standard ASCVD risk management; BP treatment, lipid therapy when indicated, sleep and lifestyle interventions.	Stopping GAHT instead of treating modifiable cardiometabolic risk unless severe/unstable disease.
OSA	Weight gain, snoring, witnessed apnoea, erythrocytosis, morning headache.	Screen before and during therapy; sleep study and CPAP when indicated.	Treating Hct only while missing OSA driver.
Pelvic pain / cramping	Testosterone-induced atrophy, cyclic ovarian activity, endometriosis, pelvic floor dysfunction, infection/STI, adhesions, pregnancy/ectopic.	History-led, anatomy-based differential; pregnancy test if possible; STI/urine testing; ultrasound if needed; pelvic floor PT, NSAIDs, lubricants, local oestrogen, adjust testosterone, progestin/IUD, gyn referral.	Forcing pelvic exam; failing to assess ectopic pregnancy risk; assuming hysterectomy cures all pelvic pain.
Persistent menses / AUB	Subtherapeutic T, missed doses, gel nonabsorption, obesity/aromatisation, PCOS, fibroid/polyp, adenomyosis, hyperplasia, malignancy, pregnancy.	Confirm T level/timing/adherence; pregnancy test if relevant; consider dose/interval change; progestin, LNG-IUD, implant, DMPA; evaluate PALM-COEIN causes if bleeding persists after 6–12 months of male-range T.	Escalating testosterone indefinitely without AUB workup.
Vaginal atrophy / dyspareunia / urinary symptoms	Hypo-oestrogenic genital tissue, friction, infection, BV, cystitis.	Lubricants/moisturisers; STI/BV/urine evaluation; short-course or maintenance local oestrogen if acceptable; pelvic floor therapy.	Assuming local oestrogen will reverse masculinisation; failing to offer it because of dysphoria without discussing external application options.
Liver dysfunction	Pre-existing liver disease, alcohol, viral hepatitis, fatty liver, oral/illicit androgens.	Avoid oral methyltestosterone/anabolic steroids; investigate transaminitis conventionally; hepatology input if severe.	Blaming standard testosterone before excluding common liver disease.
Reproductive organ cancer concerns	Retained cervix/uterus/ovaries; abnormal bleeding; family syndromes.	Anatomy-based screening and symptom-driven evaluation. Endocrine notes limited evidence of increased reproductive tract cancers but screening remains organ-based.	Routine hysterectomy solely for cancer prevention is not automatically required; ignoring bleeding because patient is on testosterone.

Complication	Risk factors / presentation	Specialist management	Pitfalls
Pregnancy exposure	Uterus/ovaries present, sperm exposure, missed doses, amenorrhoea masking pregnancy.	Counsel that testosterone is not contraception; stop testosterone when attempting conception or pregnant; offer contraception/EC/abortion care per patient goals.	Late pregnancy diagnosis due to amenorrhoea; not offering contraception because patient identifies as male.

7. Adjunctive therapies

Indication	Options	Specialist cautions
Menstrual suppression before or during testosterone	Norethisterone/norethindrone, medroxyprogesterone, DMPA, etonogestrel implant, LNG-IUD, continuous combined hormonal contraception, GnRH agonist in select cases.	Progestins can be very useful; LNG-IUD adds contraception. Combined oestrogen-containing contraception is not automatically contraindicated by testosterone, but may be dysphoria-provoking and requires usual VTE risk assessment.
Contraception	Copper IUD, LNG-IUD, implant, DMPA, progestin-only pill, combined hormonal contraception, barrier methods, sterilisation where appropriate.	Testosterone is not contraceptive and is potentially teratogenic. CDC recommends contraceptive counselling for patients using testosterone who are at pregnancy risk and do not desire pregnancy.
Acne	Topical retinoids, benzoyl peroxide, topical/oral antibiotics, hormonal-independent acne care, isotretinoin for severe disease.	Isotretinoin requires strict pregnancy-prevention systems where pregnancy possible.
Alopecia	Minoxidil; finasteride 1 mg/day; hair transplantation later.	Finasteride may reduce DHT-mediated genital growth/body hair/libido, especially early.
Vaginal/genital atrophy	Lubricants, moisturisers, topical lidocaine, local vaginal/external oestrogen, pelvic floor therapy.	Explain minimal systemic absorption; use trauma-informed route and language.
Persistent bleeding despite male-range T	Progestin, LNG-IUD, DMPA, implant; short-term aromatase inhibitor in select cases; endometrial ablation if no future fertility; hysterectomy if desired/indicated.	Aromatase inhibitors can induce ovulation and menopausal symptoms; ensure contraception and bone-risk consideration.

8. High-risk situations

Situation	Approach
Baseline Hct high	Do not simply start full-dose injectable testosterone. Evaluate smoking, OSA, hypoxia, dehydration, cardiopulmonary disease, myeloproliferative disease if indicated. Consider transdermal/low-dose start only after risk assessment.
Active pregnancy or attempting conception	Testosterone should not be used while attempting conception or during pregnancy.
Active hormone-sensitive cancer	Avoid or defer testosterone pending oncology input; prior breast cancer requires individualised oncology/endocrine discussion.
Severe unstable CAD/CVA / uncontrolled hypertension / severe untreated OSA	Optimise disease first where possible; if proceeding, use shared decision-making, lower/slower titration, transdermal route, and close monitoring.
Post-oophorectomy	Testosterone usually continues at physiologic male replacement doses; avoid prolonged sex-steroid deficiency to protect bone, vasomotor symptoms, sexual function, and wellbeing.
Older age	No automatic upper age limit, but reassess CVD, OSA, erythrocytosis, polypharmacy, malignancy screening, falls/bone health, and patient goals.
Nonbinary / partial masculinisation goals	Use lower-dose or slower titration; explicitly document desired irreversible vs reversible effects. Avoid assuming standard full masculinisation is the goal.

9. Practical “do not miss” checklist

Before first prescription	During first year	Long-term
Document informed consent, goals, fertility discussion, contraception/pregnancy risk, organ inventory, baseline FBC/Hct, BP/weight, relevant metabolic risk, cancer-screening status.	Titrate by goals + testosterone level + Hct. Ask specifically about bleeding, pelvic pain, mood cycling, migraine, acne, alopecia, libido, sleep apnoea symptoms, injection/gel technique.	Annual or semiannual review once stable; FBC/Hct, testosterone if clinically needed or per protocol, BP/weight/metabolic risk, anatomy-based screening, bone health if gonadectomy/nonadherence/stopping testosterone.

Most common specialist pitfalls: supraphysiologic dosing, mis-timed testosterone levels, ignoring pregnancy risk, interpreting labs using the wrong sex-specific range, reflex hysterectomy for pelvic pain, failing to investigate persistent bleeding, and treating erythrocytosis with phlebotomy alone rather than correcting dose peaks/OSA/smoking.