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DHA-IPM 26-007
September 2, 2026

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Clinical Guidance for Health and Human Performance Optimization

References: See Attachment 1

This Defense Health Agency Implementation Procedures Memorandum (DHA-IPM), based on the authority of References (a) and (b), and in accordance with (IAW) the guidance of References (c) through (ggg), establishes the Defense Health Agency's (DHA) procedures to operationalize the Secretary of War's July 15, 2026, memorandum, "*Health and Human Performance Optimization to Enhance Military Readiness,"* (Reference (d)). This policy standardizes proactive screenings and specialized care to sustain Warfighter capability.

This DHA-IPM applies to the DHA Enterprise (including all components, activities, and assigned, attached, allotted, or detailed personnel), Virtually Integrated Patient Readiness and Remote Program (VIPRR) clinics, and military medical treatment facilities (MTFs) where Periodic Health Assessments (PHAs) are administered. To the extent specified in their respective contracts, this guidance also applies to the Reserve Health Readiness Program (RHRP) and to TRICARE contractors (the TRICARE overseas contractor and TRICARE East and West Managed Care Support Contractors (MCSCs) and their network and non-network providers delivering medical and dental readiness services to Warfighters enrolled in TRICARE Prime Remote (TPR)).

To ensure optimal readiness, effective immediately, all MTFs, VIPRR clinics, DHA healthcare personnel, and contracted entities administering the PHA must implement the guidance and clinical protocols contained in the Attachments. The screening protocols apply to the PHA program and all personnel responsible for PHA administration (Reference (e)). Primary care providers and medical specialists will utilize the clinical assessment and management algorithms as clinically indicated. Training is available for all Military Health System (MHS) primary care providers including MTF primary care providers supervising Independent Duty Corpsmen and Independent Duty Medical Technicians who perform PHAs in MTFs (Reference (f)).

This DHA-IPM is **Cleared for public release.** This DHA-IPM is available at: https://militaryhealth.sharepoint-mil.us/sites/RPI-J1-AMP-PUBS/Lists/DHA%20Library%20Signed%20Publications/AllItems.aspx?viewid=cee5512c%2D1a36%2D4faf%2D9ce5%2D618a3b3e1a0e.

This DHA-IPM is effective upon signature. It will expire 1 year from the date of signature if it has not been reissued or canceled before this date IAW Reference (c). The point of contact for clinical matters is Dr. Paul R. Cordts, Chief Medical Officer, DHA, who can be reached at paul.r.cordts.civ@health.mil or (703) 681-3305.

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Attachments:
1. References
2. Clinical Guidance: Testosterone Deficiency in Male Warfighters
3. Clinical Guidance: Female Warfighter Hormonal Optimization
4. Algorithms: Male Warfighter
5. Algorithms: Female Warfighter

Glossary

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ATTACHMENT 1

REFERENCES

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(b) DoD Directive 5136.13, "Defense Health Agency (DHA)," September 30, 2013, as amended
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ATTACHMENT 2

MALE WARFIGHTER CLINICAL GUIDANCE: TESTOSTERONE DEFICIENCY

1. OVERVIEW. This readiness initiative focuses on the identification and management of male Warfighter hormonal dysregulation, specifically testosterone deficiency, to support performance and endurance. Testosterone regulates critical physiological systems beyond reproduction, including muscle mass, bone mineral density, erythropoiesis, metabolic function, and cognitive health (Reference (m)). Accordingly, this DHA-IPM establishes standardized clinical protocols to address testosterone deficiency, thereby supporting physical strength, bone density, metabolic resilience, performance and endurance in male Warfighters.

2. BACKGROUND. The hypothalamus regulates gonadal secretion of testosterone through the secretion of Gonadotropin-Releasing Hormone (GnRH). GnRH signals the anterior pituitary to release the gonadotropins Luteinizing Hormone (LH) and Follicle-Stimulating Hormone (FSH). LH stimulates the Leydig cells of the testes to produce testosterone, while FSH supports spermatogenesis. The hypothalamic-pituitary-gonadal (HPG) axis is regulated by negative feedback loops (References (g) through (j)).

a. Male Hypogonadism Overview

(1) Male hypogonadism is a clinical syndrome resulting from testicular failure to produce physiological levels of testosterone or normal sperm counts. Testosterone serves as a critical biological marker for Warfighter readiness, directly impacting physical strength, bone density, aerobic fitness, depressive symptoms, and cardiovascular health (Reference (g), (k) through (m)).

(2) The prevalence of biochemical hypogonadism in the general population ranges from 10 to 40 percent and increases with age (References (i) and (j)), while military personnel exposed to cumulative operational stress exhibit significantly higher rates of endocrine suppression. This presentation is a core component of "Operator Syndrome," a complex condition of endocrine, cardiometabolic, cognitive, and physical symptoms driven by operational stressors. Specifically, literature indicates that up to 39.2 percent of active duty Special Operations Forces personnel exhibit endocrine symptoms (Reference (n)), and up to 43 percent of elite operators exhibit total testosterone levels below age-based normative ranges (References (l) and (m)). Conversely, Defense Medical Surveillance System records from 2018 to 2025 indicate that less than 1 percent of male Service members received an active clinical diagnosis annually.

b. Male Primary Hypogonadism

(1) Primary hypogonadism (testicular failure) is characterized by low testosterone and elevated LH and FSH levels. Klinefelter syndrome (47, XXY or variants containing 2 or more X chromosomes) is the most common genetic cause, with a prevalence of 2:1000 males, of whom up to 50 percent remain undiagnosed (Reference (o)).

(2) Other permanent causes include orchitis, testicular trauma or torsion, and congenital defects. Reversible primary hypogonadism can be induced by medications that inhibit testosterone synthesis (e.g., ketoconazole, spironolactone; see Table1 in Attachment 4).

c. Male Secondary Hypogonadism

(1) Secondary hypogonadism (hypothalamic or pituitary dysfunction) is characterized by low testosterone and low or inappropriately normal LH and FSH levels.

(2) Permanent causes include head trauma or traumatic brain injury (TBI), head and neck radiation, pituitary tumors, and checkpoint inhibitors.

(3) Reversible or functional secondary hypogonadism is associated with conditions that suppress gonadotropins without intrinsic structural pathology. Obesity (Body Mass Index (BMI) greater than or equal to 30) is the most common reversible cause. Other reversible causes include medications (e.g., opioids, corticosteroids, exogenous anabolic steroids), acute illness, and iron overload (References (o) and (p)).

(4) In military populations, intense physical and psychological stressors (e.g., combat training, sleep deprivation, caloric deficit) cause transient, reversible suppression of testosterone that typically normalizes within 4 to 7 days of adequate nutrition, sleep optimization (7 to 9 hours per night), and training recovery (References (l), (m), (q), and (r)).

3. SCREENING. Screening for testosterone deficiency serves to identify physiological changes that may impair operational readiness, allowing for early clinical intervention. As part of this screening policy, all male Active Duty and Reserve Component Service members (SMs) will be screened for testosterone deficiency during the annual PHA (Reference (e)), IAW Reference (d)). Screening compliance is the responsibility of the MTF Chief Medical Officer.

a. Male Warfighters Aged 30 Years and Older

(1) In support of the Military Departments' requirements, DHA health care providers will conduct testosterone deficiency screenings during PHAs for all SMs in this age category, to rule out hypotestosteronemia (Reference (d)). These evaluations will include screening questions and laboratory analysis.

(2) The PHA (DD Form 3024) includes the following screening questions:

(a) Have you experienced diminished physical and work performance, reduced endurance, and/or reduced muscle mass?

(b) Have you experienced brain fog or had trouble concentrating, remembering things, or organizing your thoughts?

(c) Have you experienced a decrease in your sexual health or interest?

(3) If a male SM on active duty (ADSM) aged 30 years or older answers affirmatively to any screening question, the PHA provider will initiate the standardized diagnostic workup (see Algorithm 1 in Attachment 4). Reserve Component members should be referred to their civilian PCM.

b. Male Warfighters Under the Age of 30

(1) Annual screening for testosterone deficiency is optional for all male SMs under the age of 30.

(2) If a male SM under the age of 30 requests screening, or if the PHA provider identifies clinical indicators of hypogonadism (e.g., delayed puberty, small testes, unexplained osteoporosis, or recurrent stress fractures), the PHA provider will administer the screening and, if positive, refer the ADSM to their Primary Care Manager (PCM) for further diagnostic assessment (see Algorithm 1 in Attachment 4). Reserve Component members should be referred to their civilian PCM.

4. CLINICAL MANAGEMENT FOR MALE ADSMs.

a. Clinical Presentation

(1) Classic signs and symptoms of male hypogonadism include low-trauma fractures, loss of body hair, unexplained anemia, osteoporosis, decreased libido, decreased spontaneous morning erections, erectile dysfunction, infertility, breast tenderness or gynecomastia, and vasomotor symptoms.

(2) Non-specific signs include decreased energy, diminished physical performance, poor concentration, sleep disturbances, reduced muscle mass, increased body fat, and depressed mood. Decreased libido, decreased spontaneous morning erections, and erectile dysfunction are the three symptoms most suggestive of hypogonadism (References (i), (j), (p), and (s)).

b. Diagnosis and Assessment of Testosterone Levels

(1) The initial screening test is an immunoassay blood test for total testosterone, which should be obtained in a fasting state (>6 hours) between 0700 to 1000. For personnel working non-traditional shifts, testing will occur as close to their baseline waking hours as possible following adequate rest (e.g., night shift ending at 0700 with the SM resting/sleeping until 1500-1600 with lab testing done as close to 1600-1700) (see Algorithm 1 in Attachment 4).

(2) The abnormal threshold for the initial immunoassay is set at total testosterone less than 300 ng/dL. If the initial test is within normal limits (greater than or equal to 300 ng/dL) and PHA screening questions are negative, no further evaluation is required (Reference (j)).

(3) Any total testosterone immunoassay result less than 300 ng/dL requires a confirmatory test. The PCM will order a second total testosterone test, obtained in a fasting state

(greater than 6 hours) between 0700 to 1000 (References (i), (j), (p), and (s)). See above for guidance for personnel working non-traditional shifts. This confirmatory test will be analyzed via Liquid Chromatography-Tandem Mass Spectrometry (LC/MS) using CDC Hormone Standardization Program (HOST) certified reference laboratories (References (j), (t) through (v)). A second immunoassay can be performed for confirmation if LC/MS is unavailable for send out in some remote locations.

(4) The diagnostic threshold for low testosterone using LC/MS is set at 300 ng/dL to maintain consistency with clinical guidelines. If the confirmatory LC/MS test is less than 300 ng/dL, a diagnosis of undifferentiated hypogonadism is established (Reference (i)).

(5) To differentiate primary and secondary hypogonadism, the PCM will obtain additional laboratory tests concurrently with the confirmatory LC/MS test (see Algorithm 1 in Attachment 4):

(a) Risk factors for a low Sex Hormone-Binding Globulin (SHBG) include BMI greater than or equal to 27, diabetes, or borderline total testosterone between 200 to 400 ng/dL on LC/MS.

(b) For patients with low SHBG risk factors: The PCM will order LC/MS total testosterone, free testosterone (via equilibrium dialysis or calculated), SHBG, albumin, LH, and FSH.

(c) For patients without low SHBG risk factors: The PCM will order LC/MS total testosterone, LH, and FSH.

(6) Tests will not be obtained while the patient is experiencing acute illness, acute sleep deprivation, or extreme fatigue (References (i), (j), and (p)).

(7) High testosterone levels typically >900 ng/dl will require further workup with a primary care manager or referred to specialty care (References (i), (j), (p), and (s)).

c. Management of Primary Hypogonadism

(1) Primary hypogonadism is diagnosed by elevated LH and FSH levels in association with low total and free testosterone levels.

(2) The PCM will refer the patient to endocrinology or urology for definitive management, karyotyping (if Klinefelter syndrome is suspected), and initiation of Testosterone Replacement Therapy (TRT) (References (i) and (j)).

d. Management of Secondary Hypogonadism

(1) Secondary hypogonadism is characterized by low or inappropriately normal LH and FSH levels in association with low total testosterone.

(2) The PCM will perform a focused physical examination, including testicular volume assessment using a Prader orchidometer if available. Most adult male testicles are greater than or equal to 15 ml. Testicular volume less than or equal to 12 mL likely has permanent primary or secondary pathology and requires specialty referral. The PCM will also evaluate the patient for clinical signs of Cushing syndrome.

(3) The PCM will order secondary serologic workup to identify underlying etiologies (e.g., pituitary adenoma, hemochromatosis). Required labs include fasting prolactin, free thyroxine (T4), thyroid-stimulating hormone (TSH), complete blood count (CBC) or hematocrit (HCT), ferritin, iron saturation, and prostate-specific antigen (PSA) (References (i), (j), and (w)).

(4) Sellar Magnetic Resonance Imaging is not routinely recommended but will be ordered if the patient exhibits a persistently elevated fasting prolactin level, total testosterone less than 150 ng/dL, low or inappropriately normal LH and FSH levels, or new-onset visual field defects or worsening headaches.

(5) Obesity-Induced Secondary Hypogonadism: If serologic workup is normal and the patient's BMI is greater than or equal to 27, the diagnosis is obesity-induced secondary hypogonadism.

(a) First-line therapy is multi-modal lifestyle intervention targeting a 5-10 percent reduction in body weight, which has been shown to increase total testosterone by over 85 ng/dL and resolve clinical symptoms (References (i), (j), (p), (s), (x), and (y)).

(b) If lifestyle management alone is pursued and weight loss is achieved, but clinical symptoms and low testosterone persist, TRT should be considered. The provider and patient may also consider initiating TRT concurrently with lifestyle management.

(6) Fertility Preservation: Because exogenous TRT suppresses endogenous gonadotropins and causes oligospermia or permanent azoospermia, the PCM will assess the patient's fertility desires prior to initiating therapy. All patients desiring to preserve fertility will be referred to urology for a reproductive health evaluation prior to TRT initiation. If fertility preservation is not desired, the PCM may initiate a 3 to 6 month trial of TRT. If clinical symptoms do not improve within 6 months, TRT will be discontinued (References (i), (j), (p), and (s)).

e. Management of Pseudohypogonadism

(1) Pseudohypogonadism occurs when conditions such as obesity or insulin resistance lower SHBG, resulting in low total testosterone but normal free testosterone levels.

(2) Free testosterone levels will be measured to confirm the diagnosis (normal range is 53 to 216 pg/mL) (Reference (u)). Because these patients are not truly hypogonadal, TRT is not recommended.

f. Treatment Principles and Formulations

(1) Following shared clinical decision-making, the provider and patient may consider initiating TRT concurrently with other interventions.

(2) Reversible causes of hypogonadism (e.g., sleep apnea, medication side effects, caloric deficits) should be addressed as outlined in Table 1. This includes referring patients with sleep disturbances and a positive STOP-BANG score for a diagnostic sleep study or cognitive behavioral therapy for insomnia (CBTi) (References (i), (j), (p) through (s), (x) though (dd)).

(3) Approved TRT formulations include injectable and topical (gel or cream) preparations. No single formulation has demonstrated superior clinical efficacy. Shared clinical decision-making will guide formulation selection based on patient preference, pharmacokinetics, and formulary availability. Table 2 in Attachment 4 outlines the available formulations, dosage adjustment/monitoring, and advantages/disadvantages.

(4) Benefits of TRT: TRT has demonstrated clinical efficacy in improving sexual function, mood, bone density, and body composition by increasing lean body mass and decreasing fat mass (References (h), (j), (ee), and (ff)).

(a) Body Composition: TRT increases lean body mass by 1.6 to 2 kg and decreases fat mass by approximately 1.6 kg but does not produce net body weight loss (References (w), (cc) and (gg)).

(b) Cardiovascular: Low testosterone levels are associated with an increased incidence of cardiovascular events. One large retrospective study in the U.S. Department of Veterans Affairs found an association between TRT and a lower risk of death, myocardial infarction, and stroke. The randomized controlled trial (TRAVERSE trial) did not replicate these cardiovascular benefits. It did demonstrate no increased risk of major adverse cardiovascular events (References (h), (j), (ee), and (hh) through (ll)).

(c) Sexual Function and Mood: TRT moderately improves sexual function, including libido, and can improve mild depressive symptoms. The TRAVERSE trial demonstrated improvements in libido and mild depressive symptoms but showed no significant difference in erectile function at 2 years. The American College of Physicians recommends that TRT be considered primarily for improving sexual function. The American Urological Association recommends TRT for the improvement of sexual function, anemia, bone mineral density, and lean body mass (References (j), (s), (ee), and (ff)).

(d) Bone Mineral Density: Clinical trials demonstrate that TRT leads to significant increases in bone mineral density and bone strength. However, TRT should not be used as a primary treatment for osteoporosis (References (ee), (ff), (mm) and (nn)).

(5) Risks of TRT:

(a) Erythrocytosis: TRT increases hematocrit by 5-15 percent. Short-acting intramuscular formulations increase hematocrit by 4.3 percent, oral by 4.0 percent, transdermal

by 3.0 percent, and long-acting intramuscular by 1.6 percent. TRT will be adjusted or discontinued if hematocrit exceeds 54 percent (References (oo) through (qq)).

(b) Cardiovascular: The TRAVERSE trial demonstrated no increased risk of major adverse cardiac events (MACE) with TRT but showed higher rates of atrial fibrillation (3.5 percent vs. 2.4 percent), acute kidney injury (2.3 vs. 1.5 percent), and pulmonary embolism (0.9 vs. 0.5 percent) when compared to placebo. While these differences were statistically significant, the absolute risk of these adverse events remained small. These trials led to the removal of the black box warning for cardiovascular events, but a warning for increased blood pressure was added by the FDA (References (ee), (ff), (ii) though (kk), and (rr)).

(c) Prostate Health: PSA screening is required for patients aged 40 years and older prior to initiating TRT and annually thereafter. Patients with a PSA exceeding 3 ng/mL will be referred to Urology (References (h), (j), (o), (ee), (ff), (ii), and (jj)).

(d) Fertility planning: Exogenous TRT is contraindicated in men actively involved in fertility planning. Alternative therapies (e.g., clomiphene or hCG) may be considered to preserve spermatogenesis (References (i), (j), and (m)).

(6) Patient Consent: Document patient counseling and education as appropriate.

g. Contraindications

(1) Absolute Contraindications: Hypersensitivity to formulation components, breast cancer, and active prostate cancer (References (qq) and (ss)).

(2) Relative Contraindications: Hematocrit greater than 50, myocardial infarction or stroke within the past 6 months, uncontrolled heart failure, active fertility planning, severe lower urinary tract symptoms, history of venous thromboembolism, untreated obstructive sleep apnea, and uncontrolled arrhythmias. Pregnant females exposed to the topical formulations by males undergoing treatment may be teratogenic (References (h) though (j), (p), (s), (qq), and (ss)).

h. Monitoring and Follow-Up

(1) PCMs will titrate TRT to the minimal dose necessary to restore total testosterone levels to the normal range.

(2) Clinical follow-up will occur at 3 months to assess symptom response. If target testosterone levels are achieved without clinical symptom improvement, TRT may be discontinued. PCMs should investigate further for other etiologies of symptoms.

(3) Total testosterone and hematocrit levels will be assessed at 3 and 6 months following initiation or dose modification, and annually thereafter.

(4) As symptoms improve, PCMs may consider titrating to a lower dose of TRT, or discontinuing, when appropriate (References (h) though (j), (p), and (s)).

i. Readiness and Administrative Considerations

(1) ADSMs initiated on TRT require clinical monitoring, laboratory surveillance, and dose stabilization, which can take up to 6 months.

(2) Providers will coordinate care and monitor compliance in accordance with Department of War and Service-specific medical readiness standards.

ATTACHMENT 3

FEMALE WARFIGHTER HORMONAL OPTIMIZATION

1. OVERVIEW. This readiness initiative focuses on the identification and management of female Warfighter hormonal dysregulation to support performance and endurance. Essential hormones, specifically testosterone, estrogen, and progesterone regulate critical physiological systems beyond reproduction, including bone mineral density, muscle recovery, metabolism, and cardiovascular health. Accordingly, this DHA-IPM establishes standardized clinical protocols to address hormonal dysregulation, thereby supporting bone density, metabolic resilience, muscle recovery, performance and endurance in female Warfighters.

2. BACKGROUND. The hypothalamus regulates gonadal secretion of testosterone, estrogen, and progesterone through the secretion of Gonadotropin-Releasing Hormone (GnRH). GnRH signals the anterior pituitary to release the gonadotropins Luteinizing Hormone (LH) and Follicle-Stimulating Hormone (FSH). In females, LH and FSH stimulate the ovaries to produce androgens, including testosterone, as well as estrogen and progesterone (Reference (tt)). The hypothalamic-pituitary-ovarian (HPO) axis is regulated by positive and negative feedback loops.https://journals.sagepub.com/doi/10.1177/17455057261451831 Simultaneously, adrenocorticotropic hormone (ACTH) stimulates the adrenal zona reticularis to produce additional androgens, including Dehydroepiandrosterone Sulfate (DHEA-S), Dehydroepiandrosterone (DHEA), and androstenedione, which are converted peripherally to the more potent testosterone and estrogen.

3. SCREENING. Screening for dysregulation of testosterone, estrogen, and progesterone serves to identify physiological changes that may impair operational readiness, allowing for early clinical intervention. As part of this screening policy, all female SMs will be screened annually for hormonal dysregulation during the PHA.

a. Female Warfighters of All Ages

(1) If a female SM of any age screens positive, indicated by symptoms of fatigue musculoskeletal pain, and changes in the menstrual patterns (including menstrual cycles exceeding 35 days in length), the PHA provider will conduct evaluations for Relative Energy Deficiency in Sports (RED-S) using a targeted clinical interview (Algorithm 1 in Attachment 5) to determine the etiology of the symptoms.

(2) If the targeted interview indicates no clinical concern for RED-S, no further evaluation is required. If there is clinical concern for RED-S, the PHA provider will refer the female ADSM to their PCM for further diagnostic assessment and clinical management. Reserve Component members should be referred to their civilian PCM.

b. Female Warfighters Aged 35 Years and Older

(1) If a female SM aged 35 years or older screens positive on the PHA, indicated by clinically significant symptoms of perimenopause or menopause reflecting dysregulation of testosterone, estrogen, and/or progesterone, the PHA provider will assess the impact of these symptoms on the female SM's operational duties and quality of life.

(2) If the PHA determines there is no operational impact, the symptoms do not significantly impact the female SM's quality of life, and the female SM does not request further education or clinical management, no further evaluation is required.

(3) If the reported symptoms impact the female SM operational performance or quality of life, or if the female SM requests clinical education or management of perimenopause or menopause, the PHA provider will refer the female ADSM to a midlife transition clinical specialist. A midlife transition clinical specialist may include, but is not limited to, an Obstetrician-Gynecologist (OB/GYN), Certified Nurse Midwife (CNM), Women's Health Nurse Practitioner (WHNP), Endocrinologist, or a PCM or other healthcare provider who has completed training in perimenopause and menopause care. If a midlife transition clinical specialist is unavailable at the local MTF, the provider will refer the patient to the DHA Midlife Telehealth Hub. Reserve Component members should be referred to their civilian PCM.

3. CLINICAL MANAGEMENT FOR FEMALE ADSMs. Clinical management of female ADSMs who screen positive for dysregulation of testosterone, estrogen, and/or progesterone during PHA will focus on evidence-based evaluation and treatment of the root cause of the symptoms.

a. Suspected RED-S.

(1) RED-S, a syndrome historically referred to as the "female athlete triad," is characterized by impaired physiological and psychological functioning caused by low energy availability (LEA). LEA occurs when dietary energy intake is insufficient to support physiological function after subtracting exercise energy expenditure. Military operational demands, fitness standards, and occupational stressors increase RED-S risk, compromising readiness by increasing bone stress injuries, suppressing endocrine function, and causing lost duty days (Reference (uu)). Pathophysiological consequences include:

(a) Endocrine and Reproductive: Functional hypothalamic amenorrhea (potentially masked by hormonal contraception).

(b) Musculoskeletal: Decreased bone mineral density (BMD), increased risk of bone stress injuries, and impaired protein synthesis.

(c) Metabolic and Cardiovascular: Suppressed resting metabolic rate (RMR), unfavorable lipid profiles, and cardiovascular alterations.

(d) Psychological: Increased risk of depression, anxiety, and eating disorders.

(2) Clinical management follows a three-step evaluation model adapted from the International Olympic Committee's (IOC) consensus (Algorithm 2 in Attachment 5) (Reference (vv)). Following a positive PHA screen, the PCM will administer a validated screening tool, such as the LEA in Females Questionnaire (LEAF-Q). If negative, no further evaluation is required unless clinical suspicion remains high.

(3) If the LEAF-Q is positive, the PCM will perform a risk assessment using the IOC REDs Clinical Assessment Tool Version 2 (CAT2) to stratify risk based on primary and secondary clinical indicators (e.g., amenorrhea, BMD Z-scores, stress fracture history). Menstrual cycle and sex hormone status indicators will not be scored for female ADSMs taking thyroid or sex hormone-altering medications (e.g., hormonal contraceptives).

(4) Based on CAT2 stratification, the PCM will assign the female ADSM to one of four categories to determine duty and training status.

(a) Red (High Risk / Severe): Severe presentation posing an immediate health risk. The female ADSM will be referred for intensive medical and nutritional treatment, may require hospitalization, and will be placed on limited-duty or appropriate profile.

(b) Orange (High-Moderate Risk): Requires intensive medical intervention, strict monitoring, and heavily modified training and physical duties.

(c) Yellow (Moderate Risk): Cleared for duty only with supervised, modified training and a monitored medical treatment plan.

(d) Green (Low Risk): Full participation in all military duties and training with standard medical monitoring.

(5) Diagnosis is based on history, physical examination, and LEA assessment while excluding alternative causes. Clinical features include weight loss, low BMI, functional hypothalamic amenorrhea, recurrent stress injuries, decreased performance, chronic fatigue, bradycardia, orthostatic hypotension, or recurrent illness.

(a) Diagnostic Evaluation: Labs will include a complete blood count, comprehensive metabolic panel, ferritin, iron studies, vitamin B12, and thyroid-stimulating hormone. For oligomenorrheic or amenorrheic female ADSM, testing will also include a pregnancy test, prolactin, follicle-stimulating hormone, luteinizing hormone, and estradiol as clinically indicated.

(b) Multidisciplinary Team: Treatment will be coordinated by a multidisciplinary team led by the PCM or a sports medicine physician, with consultations from a registered dietitian and physical therapist.

(c) Specialty Referrals: The PCM will refer the female ADSM to a women's health provider for menstrual irregularities or bone stress injuries. The PCM will maintain a low threshold for referral to a mental health provider to address disordered eating, body image concerns, anxiety, compulsive exercise, or occupational performance pressures.

(6) Treatment principles:

(a) Correct the Energy Deficit: Reverse LEA by increasing dietary energy intake, decreasing physical training volume, or both, prioritizing protein, carbohydrates, calcium, and Vitamin D.

(b) Psychological Support: Address underlying disordered eating, body image concerns, or performance pressures using cognitive behavioral therapy.

(c) Monitoring and Return to Duty: Reassess clinical markers (e.g., body composition, bone mineral density via DXA scan, labs) every 6–12 months. Return to unrestricted physical activity will be individualized and based on improved nutritional intake, medical stability, resolved fatigue, healed injuries, treatment adherence, restored menstrual function, and multidisciplinary team consensus.

(d) Patient Consent: Document patient counseling and education as appropriate.

b. Symptomatic Perimenopause and Menopause

(1) Menopause is the permanent cessation of menstruation following the loss of ovarian activity, diagnosed retrospectively after 12 consecutive months of amenorrhea (Reference (ww)). Perimenopause is the transition period preceding menopause by up to a decade, marked by fluctuations in testosterone, estrogen, and progesterone. These fluctuations can cause altered cognition, loss of bone density, weight gain, vasomotor symptoms, urinary symptoms, sleep disturbances, depressive or anxiety symptoms, abnormal uterine bleeding, dyspareunia, vaginal dryness, and sexual concerns. Shared clinical decision-making will guide the selection of hormonal or non-hormonal treatments.

(2) In January 2025, the DHA published a perimenopause and menopause clinical practice recommendation (PR) (Reference (xx)). Additionally, a joint Department of Veterans Affairs and DoW clinical practice guideline (CPG) is expected in Fall 2026. While both resources cover the impact and management of estrogen and progesterone, the pending VA/DoW CPG discusses the role of testosterone therapy.

(3) The 2019 Global Consensus Position Statement on Testosterone Therapy for Women concluded that the only evidence-based indication for testosterone in women is Hypoactive Sexual Desire Disorder (HSDD) (Reference (yy)). Meta-analyses show a moderate therapeutic effect of transdermal testosterone on sexual function in postmenopausal women.

(4) Data indicating testosterone benefits for HSDD in perimenopausal women are limited. While the International Society for the Study of Women's Sexual Health includes late reproductive years in its HSDD process of care (Reference (tt)), most organizations and the Global Consensus Position Statement do not advocate for testosterone use in this population due to insufficient evidence and the teratogenic risks to premenopausal women if pregnancy occurs (Reference (yy)).

c. Testosterone Treatment of HSDD in Postmenopausal Females

(1) Per the Global Consensus Position Statement, associations between endogenous androgen concentrations and sexual function in women remain uncertain, and no diagnostic cut-off blood level can differentiate women with and without sexual dysfunction. The decision to treat a postmenopausal female for HSDD with testosterone will be based on clinical symptoms and shared decision-making (Reference (yy)).

(2) When considering testosterone therapy for HSDD in a postmenopausal female (Algorithm 3 in Attachment 5), counseling should include (Reference (yy)):

(a) Flibanserin is the only FDA-approved medication for HSDD in postmenopausal women.

(b) Testosterone therapy is off-label but, at doses approximating premenopausal physiological concentrations, has a modest improvement in sexual function (Reference (yy) through (aaa)).

(c) No female-specific FDA-approved testosterone products are available. Prescribing an approved male formulation off-label is acceptable, provided hormone concentrations are maintained within the female physiologic range.

(d) Compounded “bioidentical” testosterone, pellets, and injections are not recommended due to a lack of safety and efficacy data and the risk of supraphysiologic concentrations (Reference (tt)).

(e) Physiological doses of testosterone may cause mild acne, hair growth, or weight gain, with no significant short-term adverse effects on blood pressure, blood glucose, hemoglobin A1c, or lipid profiles. Supratherapeutic doses can cause permanent alopecia, clitoromegaly, and voice deepening.

(f) Safety data for physiologic testosterone doses are not available beyond 24 months. Caution is recommended for women with a history of hormone-sensitive breast cancer or high cardiometabolic risk, as these populations were excluded from randomized controlled trials.

(3) Prior to initiating testosterone therapy, the PCM should identify and address alternative causes of HSDD (Reference (tt) and (bbb)).

(4) Candidates for testosterone therapy are postmenopausal women presenting with a distressing decline in sexual function. Women will not receive testosterone therapy if they exhibit signs of clinical androgen excess or are using antiandrogenic medications. Testosterone treatment in women with hormone-dependent neoplasia requires specialist consultation (Reference (tt)).

(5) Because there is no diagnostic test to identify responders, testosterone administration should always be considered a trial of therapy (Reference (yy)). Direct immunoassays or liquid chromatography-tandem mass spectrometry will be used to exclude high baseline concentrations and monitor for supraphysiologic levels (Reference (yy)).

(6) At physiological doses, clinical benefits emerge within 4 to 8 weeks; treatment should be discontinued if no benefit is demonstrated by 6 months (Reference (yy)). Baseline screening total testosterone will be measured prior to treatment. A baseline mid-range to high screening total testosterone level indicates symptoms are likely unrelated to testosterone, and therapy should be reconsidered (Reference (ww), (yy) and (www)). Baseline liver function tests, complete blood count, and lipid panels are recommended, as active liver disease or high cardiovascular risk are relative contraindications. Baseline Sex Hormone-Binding Globulin (SHBG) testing is optional, as there is some evidence women with a high SHBG concentration are more likely to be non-responders; a trial of testosterone therapy may still be considered, but increasing the testosterone dose to overcome elevated SHBG is not recommended (Reference (tt)).

(7) Repeat total testosterone levels should be assessed 3 to 6 weeks after initiation or dose increase to ensure levels remain within the normal premenopausal reference range (test specific) (Reference (eee) and (fff)). If levels exceed the premenopausal female reference range or symptoms of hyperandrogenism develop, the dose should be reduced, and levels reassessed in 2 to 3 weeks (Reference (fff)).

(8) Transdermal testosterone therapy should be discontinued at 6 months in non-responders. For ongoing therapy, clinical evaluation and testosterone measurement should occur every 4 to 6 months (Reference (ddd)), with a drug holiday considered after 6 to 12 months (Reference (fff)).

(9) The recommended starting dose is 1/10th of an FDA approved male formulation of one percent testosterone cream or gel (e.g., 5 mg or 0.5 mL of a 1% gel from a 5 gm tube containing 50 mg of testosterone), aiming for physiologic premenopausal female hormonal range. Resealable unit-dose tubes are preferred, and a syringe may be provided to measure the dose. The medication will be applied to the back of the calf, upper outer thigh, or buttock. Patients will be counseled on the risk of drug transference to children, pets, and partners (Reference (ggg)). Injections, pellets, and oral formulations are not recommended. Federal law limits controlled substance dispensing to a maximum of a 180-day supply; MTF pharmacies will dispense partial boxes (e.g., 18 tubes for 180 days) as required to comply with this limit.

d. Testosterone Treatment for Other Conditions in Females

(1) Meta-analyses of blinded RCT of testosterone versus a comparator of at least three months duration show no significant benefit or harm of testosterone therapy for psychological wellbeing, depressive symptoms, cognitive performance, cardiovascular events, bone mineral density, or muscle mass and performance (Reference (aaa)).

(2) Systematic reviews of observational studies show that endogenous testosterone blood levels are not associated with mood, cognitive function, or muscle mass and performance (Reference (bbb)).

ATTACHMENT 4

ALGORITHMS: MALE WARFIGHTER

Table 1: Causes of Primary and Secondary Hypogonadism in Men	
Primary	
Permanent	**Reversible**
Klinefelter syndrome	Medications: ketoconazole, spironolactone
Chemotherapy	
Mumps/viral orchitis	
Testicular trauma	
Secondary	
Permanent	**Reversible**
Head and neck radiation	Obesity
Severe head trauma/traumatic brain injury	Acute illness
Sellar tumors/pituitary adenomas	Chronic illness (e.g., chronic kidney disease, cirrhosis, heart failure, respiratory failure, chronic inflammatory disease, sickle cell disease)
Iron overload/hemochromatosis	Severe calorie restriction and eating disorder
Checkpoint inhibitors	Excessive exercise
Congenital hypogonadotropic hypogonadism	Excessive alcohol use
	Sleep disorders (e.g., obstructive sleep apnea, sleep deprivation, disrupted sleep)
	Medications: corticosteroids, opioids, androgens
	Hyperprolactinemia (medications/prolactinomas)
Pseudohypogonadism	
Obesity	
Insulin resistance	
Type 2 diabetes	

Table 2: Testosterone Formulations

Delivery Method	Dosage	Advantages	Disadvantages	Interval for Testosterone Measurement and Adjustment	Pharmacy Benefit
Gel or cream	Varies depending on formulation used; applied daily	Skin irritation less common than with patch; no injections; lower peak levels; less erythrocytosis	Concern of transfer to others; more expensive than injections; skin irritation common; cannot bath, wash, swim involving application site for at least 4 hrs. after application.	Measure 2-6 hrs. after gel application 4-6 wks. after initiation or change in dosage. If not at goal 2-6 hrs. after applications, the gel dosage should be changed. Gel pumps offer more flexibility in changing the dosage.	Step-preferred ($25.39-$73.49 per 30): • Testosterone 1% gel (generic Androgel® or Testim®) • Testosterone 1.62% gel (generic Androgel®) • Testosterone 2% solution (generic Axiron®) Non-step preferred: • Testosterone 2% gel (generic Fortesta®) Not available in U.S. at this time. • Vogelxo 1%®) Multidose Pump, ($445.64 per 30 days)
Injectable (intramuscular or subcutaneous)	• **Testosterone cypionate:** 50 to 100 mg every 1 to 2 weeks • **Testosterone enanthate:** 50	Inexpensive and most likely to be available on formularies and covered	Painful injection site reactions, aversion to injections; higher risk of erythrocytosis	Measure at mid-interval between injections. Obtain mid-interval level 3-6 mos. after initiation or at 3-6 mos.	Uniform Formulary (no step) • Testosterone cypionate IM (generic $19.26 100mg/ml 10ml and $37.52

Delivery Method	Dosage	Advantages	Disadvantages	Interval for Testosterone Measurement and Adjustment	Pharmacy Benefit
	to 100 mg every 1 to 2 weeks • **Testosterone propionate:** 10 to 25 mg 2 to 3 times per week	by insurance; no contact transference; dosing interval may be more convenient.		after any change in dosage. If not at mid-interval goal, dosage should be changed by 10 percent-25 percent.	200mg/ml 10ml vials), Azmiro® ($190.95 200mg/ml per 1ml syr) • Testosterone enanthate IM ($74.00 200mg/ml 5ml vial) Non-step preferred • Xyosted® auto-injector (SQ) ($370.28 per 4 syr no matter strength)
Pellets	600 to 900 mg every 3 to 6 months	No maintenance, stable serum levels; more convenient for some; no contact transference	Invasive in-office procedure, hard to titrate, hard to remove, risk of expulsion; may be considered for readiness/deployability; expensive; dosage adjustment limited.	Measure just before pellet insertion at 3-4 mos. after initiation and 3-4 mos. after any change in dosage. If not at goal, the number of pellets should be adjusted.	Inpatient/THP Benefit only ($4522.61 per 100 75mg pellets. 600mg = 8 pellets at $360 or ~$120 per month)
Testosterone undecanoate (intramuscular)	750 mg every 10 weeks after 4-week loading dose of 750 mg	Only four to five injections per	Not always available, risk of blood pressure elevation, FDA boxed warning for major	Measure at nadir just before injection 6 mos. after initiation and 6	Inpatient/THP Benefit only ($1,058.76 per dose or ~$423.20 per month)

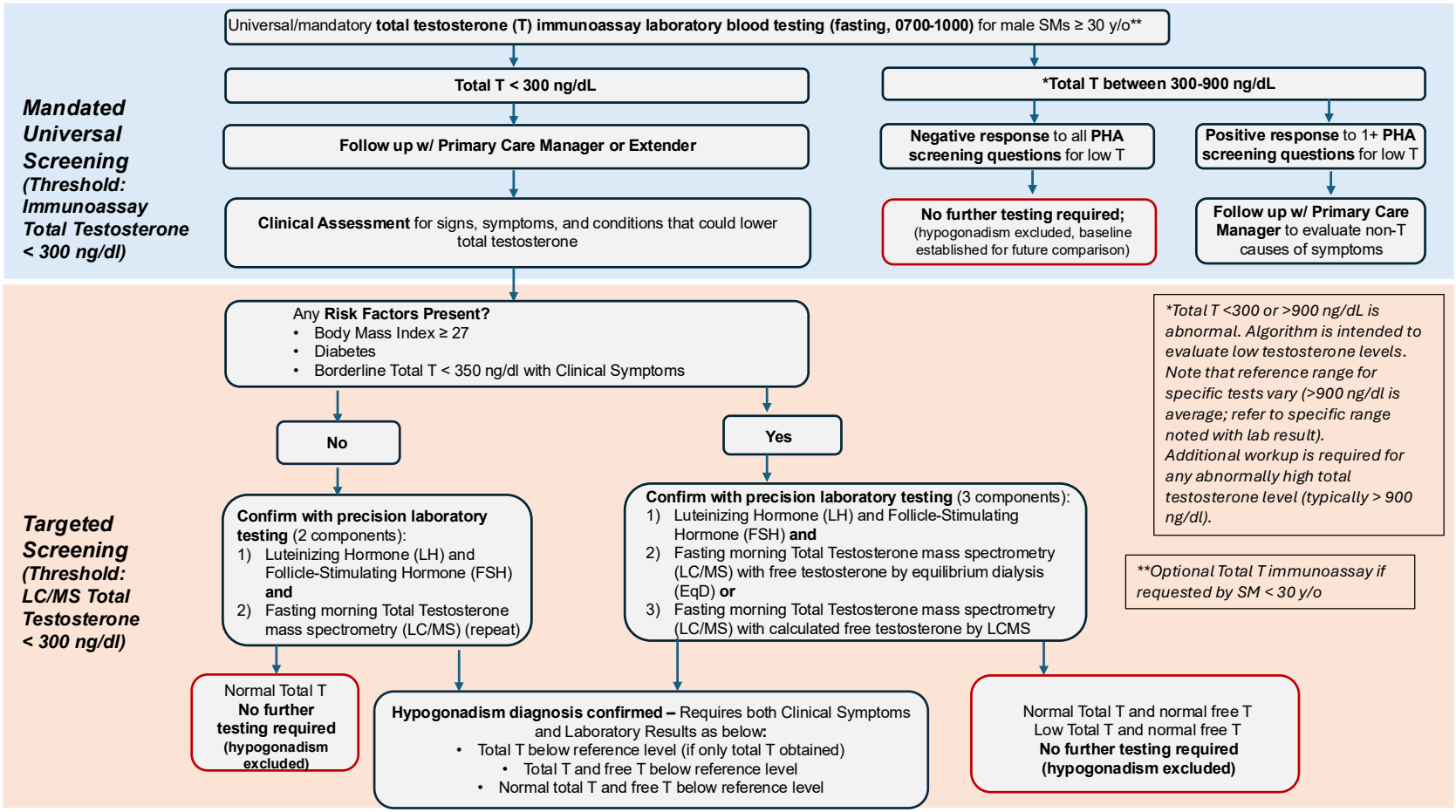
Delivery Method	Dosage	Advantages	Disadvantages	Interval for Testosterone Measurement and Adjustment	Pharmacy Benefit
		year; stable serum levels	atherosclerotic cardiac events, rare pulmonary oil microembolism risk	mos. after any change in dosage. If not at goal, interval between injections should be changed by 1-2 wks.	
Testosterone undecanoate (oral)	237 to 396 mg twice per day	Oral (no pain, transference, or skin irritation)	Not always available, twice-daily dosing, risk of blood pressure elevation, FDA boxed warning for major atherosclerotic cardiac events; expensive; dosage adjustment limited; more variable levels; must be taken with meals; oral testosterone is commonly supplied as liquid-filled soft gelatin capsules. High humidity can cause softgels to stick. together, soften, or lose structural integrity	Varies by product	Non-step-preferred • Jatenzo® oral capsule (158mg & 198mg per cap = $6.55; 237mg = $13.07 per cap; 237mg bid = $784 per month) • Tlando® oral capsule 225 mg BID ($524.89 per month)

Delivery Method	Dosage	Advantages	Disadvantages	Interval for Testosterone Measurement and Adjustment	Pharmacy Benefit
Nasal Gel	Dosage: 3 times/day via pump delivery system	No injections; no contact transference to women or children	Must be applied 3x daily; nasal irritation; cannot blow nose for 3 hrs. after administration; wide variance in levels.	Dosage is not generally adjusted based on testosterone measurements because serum concentrations vary too widely.	Non-step-preferred ($181.73 per bottle and 3 bottles per month = $545.19)
Transdermal patch	2.5-mg or 5-mg patches replaced nightly	Recreation of normal circadian rhythm	Skin irritation	Not available in U.S. at this time	Not available in U.S. at this time
Transbuccal Tablet					Not available in U.S. at this time

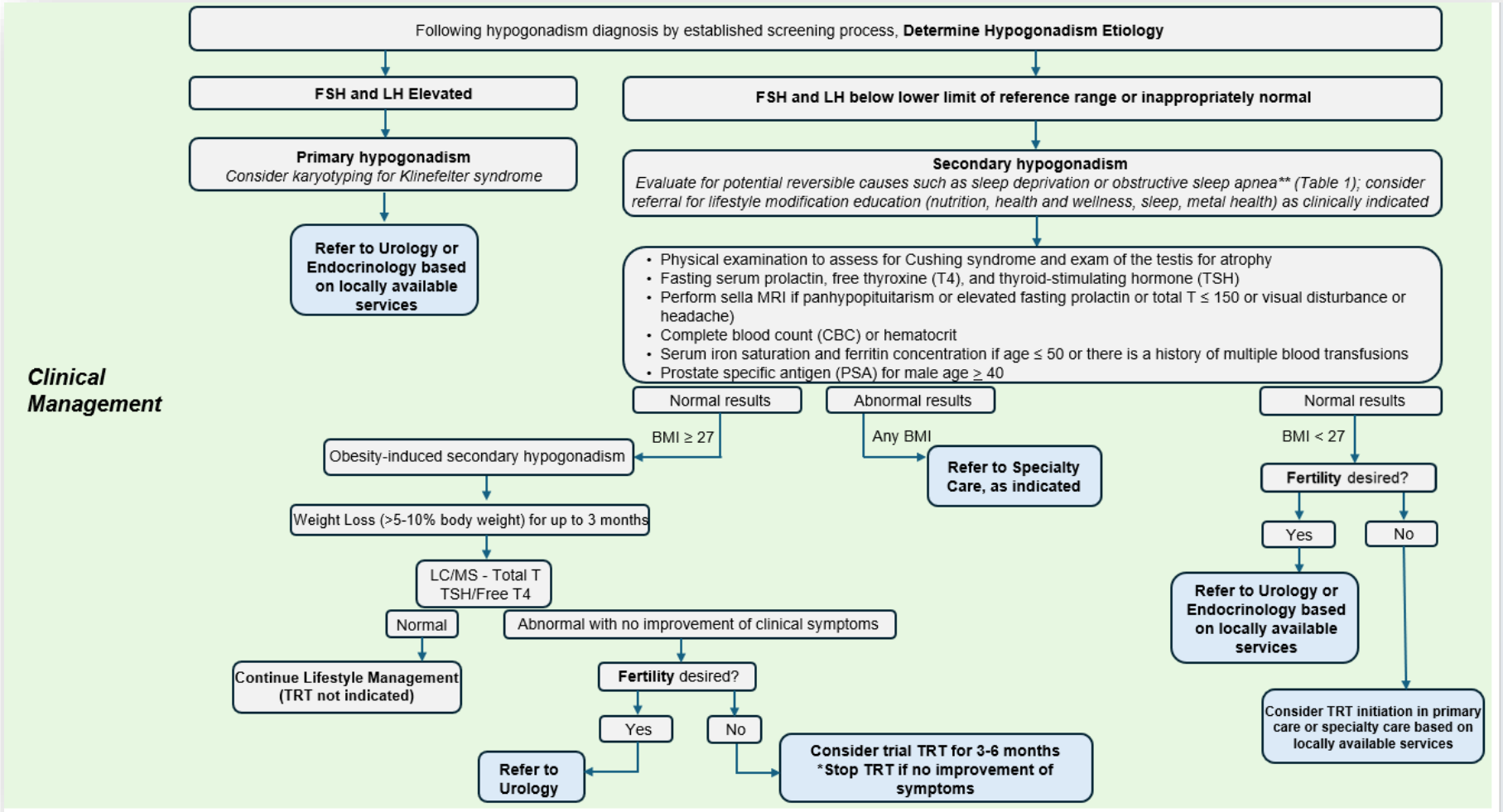
DoW/VA cost effective agents: IM and gel formulations
Prices are accurate as of July 2026 for MTFs. Prices do not include proprietary contract information.
Prior authorization (PA) required for all formulations. Current PAs for all drugs are available at: https://www.express-scripts.com/frontend/open-enrollment/tricare/fst/#/.

Table 3: Contraindications to Testosterone Replacement Therapy	
Breast Cancer (male or female)	Severe lower urinary tract symptoms
Prostate Cancer (metastatic/active) or unevaluated prostate nodule	Thrombophilia/history of venous thromboembolism
Hematocrit greater than 50 percent	Untreated obstructive sleep apnea
Myocardial Infarction/Acute Coronary Syndrome or stroke within past 6 months	Untreated arrhythmia/atrial fibrillation
Desire current or future fertility	Hypersensitivity to compound formulation
Uncontrolled heart failure	

Algorithm 1: Algorithm for the Evaluation of Male Hypogonadism



Algorithm 2: Management of Male ADSM Hypogonadism*

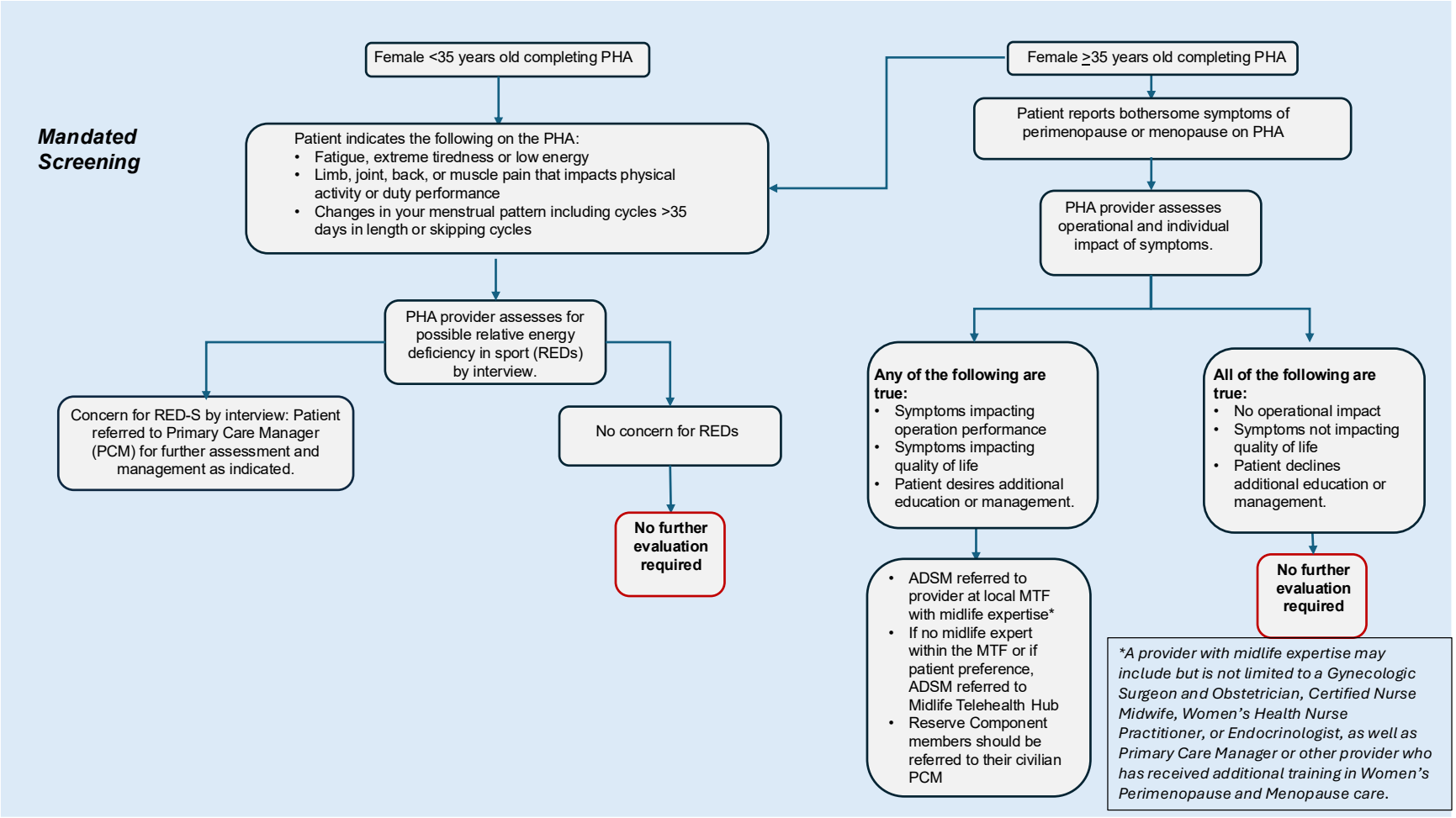


* Reserve Component members should be referred to their civilian PCM.

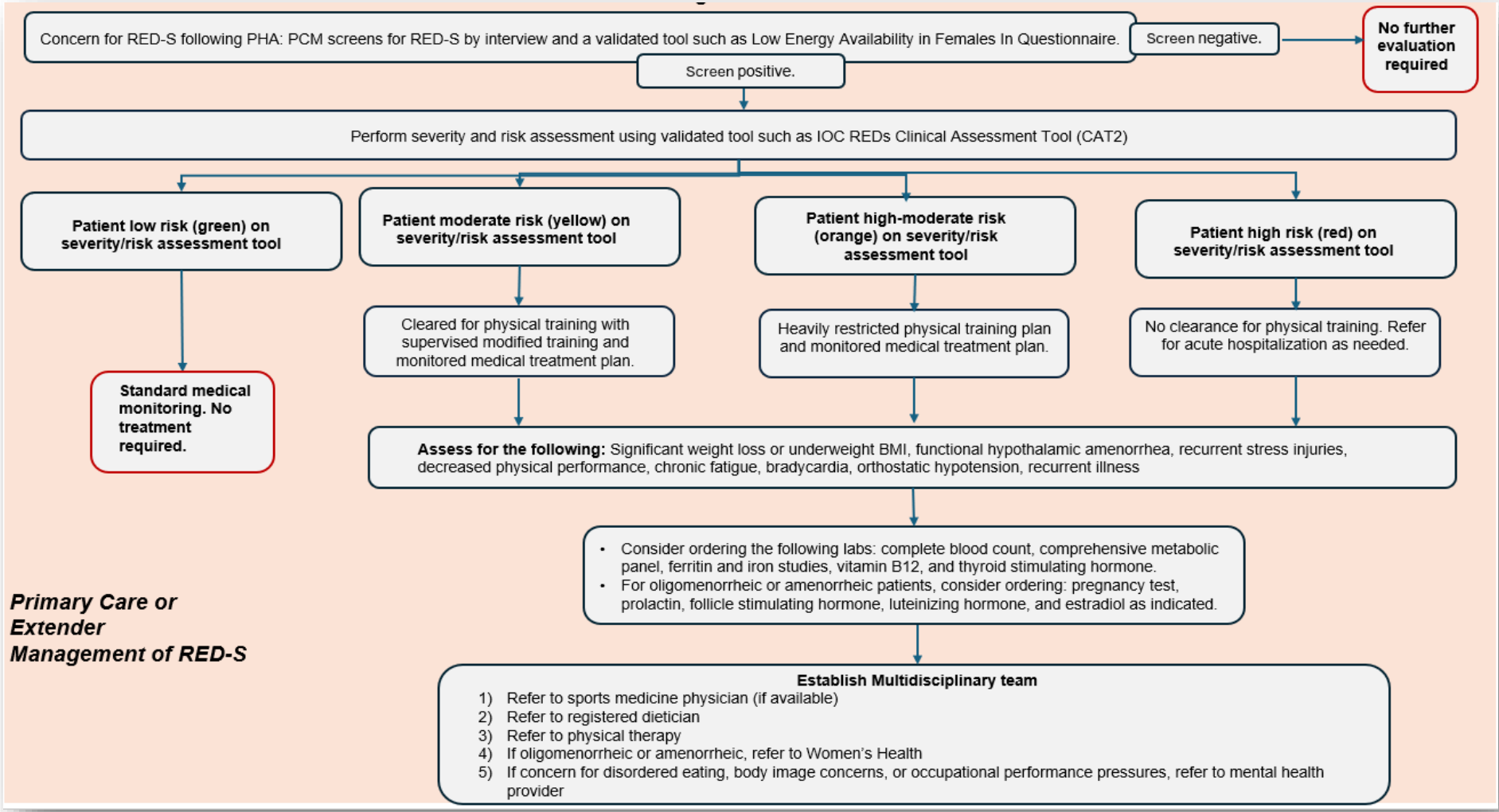
ATTACHMENT 5

ALGORITHMS: FEMALE WARFIGHTER

Algorithm 1: Workflow for PHA Evaluation of Female SM Hormonal Optimization

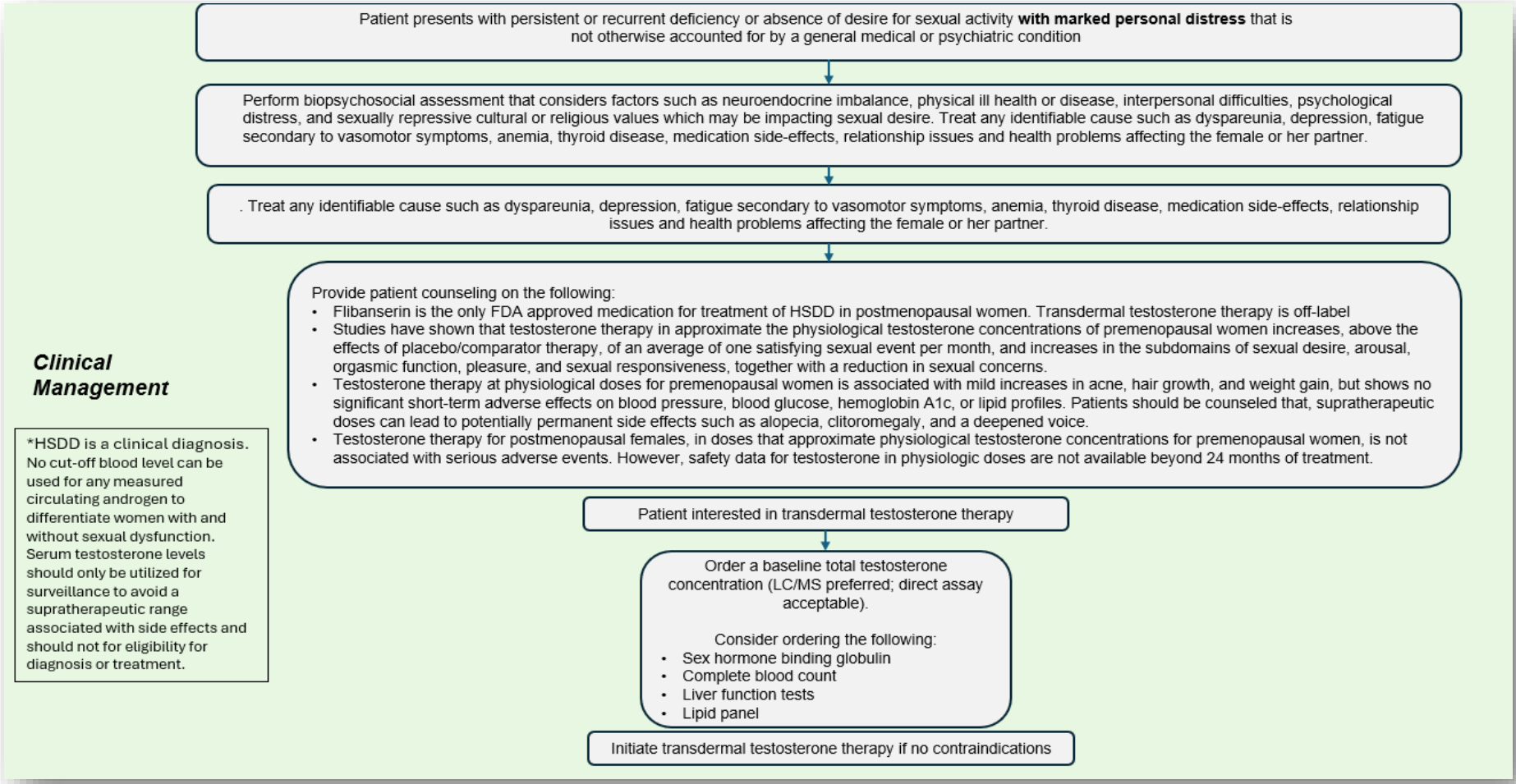


Algorithm 2: PCM Management of ADSM RED-S*



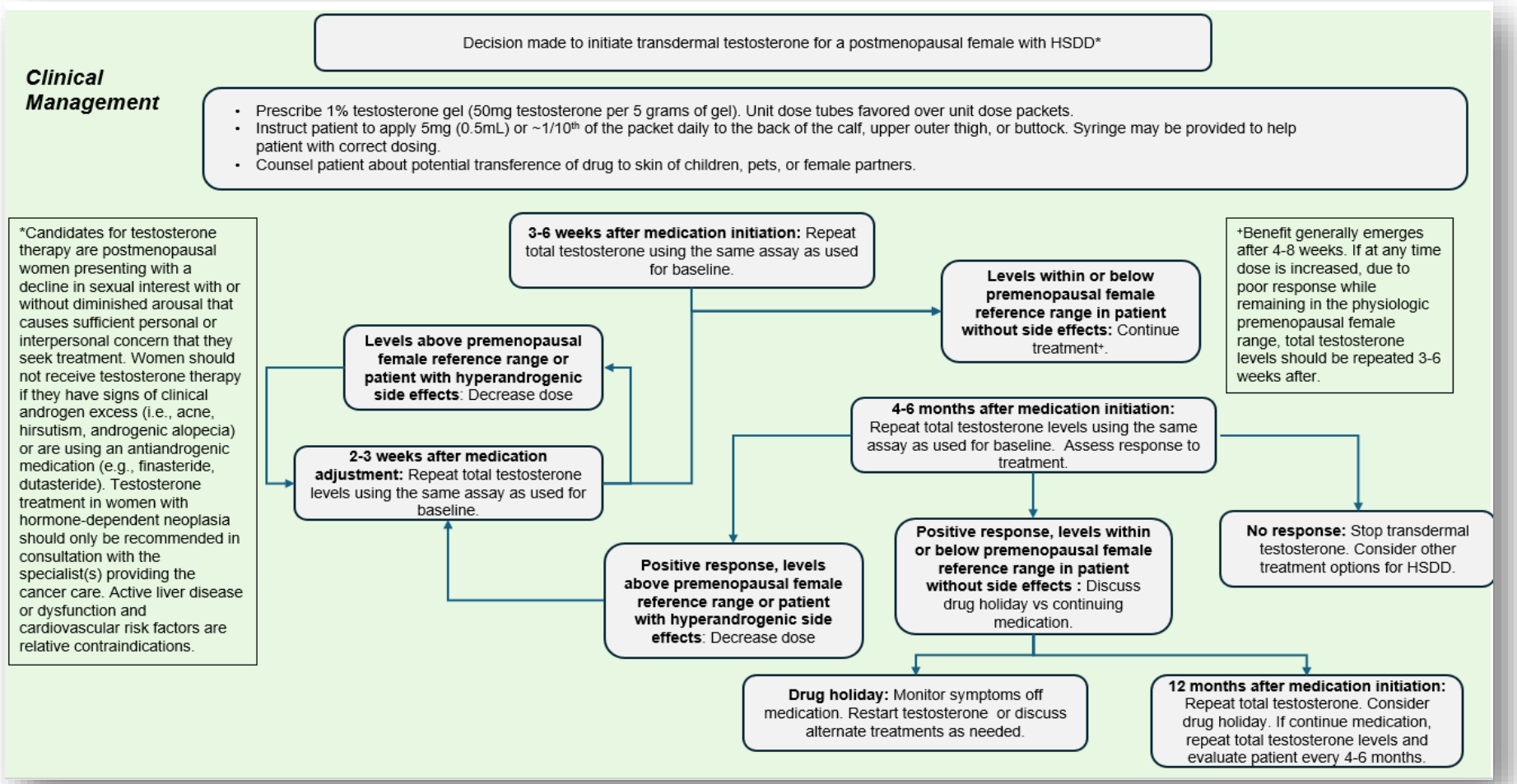
* Reserve Component members should be referred to their civilian PCM.

Algorithm 3a: Transdermal Testosterone for the Management of HSDD in Postmenopausal ADSM Females*



* Reserve Component members should be referred to their civilian PCM.

Algorithm 3b: Transdermal Testosterone for the Management of HSDD in Postmenopausal ADSM Females*



* Reserve Component members should be referred to their civilian PCM.

GLOSSARY

ABBREVIATIONS AND ACRONYMS

ACTH	Adrenocorticotropic Hormone
BMD	Bone Mineral Density
BMI	Body Mass Index
CAT2	Clinical Assessment Tool Version 2
CBC	Complete Blood Count
CBTi	Cognitive Behavioral Therapy for Insomnia
DHA	Defense Health Agency
DHA-IPM	Defense Health Agency-Interim Procedures Memorandum
DHEA	Dehydroepiandrosterone
DHEA-S	Dehydroepiandrosterone Sulfate
ES	Endocrine Society
FDA	U.S. Food and Drug Administration
FSH	Follicle-Stimulating Hormone
GLP	Glucagon-like Peptide
GnRH	Gonadotropin-releasing Hormone
HCT	Hematocrit
HOST	Hormone Standardization Program
HPO	Hypothalamic-Pituitary-Ovarian
HSDD	Hypoactive Sexual Desire Disorder
IAW	In Accordance With
IOC	International Olympic Committee
LC/MS	Liquid Chromatography / Tandem Mass Spectrometry
LEA	Low Energy Availability
LEAF-Q	Low Energy Availability in Females Questionnaire
LH	Luteinizing Hormone
MACE	Major Adverse Cardiovascular Events
MTF	Military Medical Treatment Facility
ng/dL	nanograms per deciliter

OPSS	Operation Supplement Safety
PA	Prior Authorization
PCM	Primary Care Manager
PHA	Periodic Health Assessment
PR	Practice Recommendation
PSA	Prostate-Specific Antigen
RCTs	Randomized Controlled Trials
RED-S	Relative Energy Deficiency in Sports
RHRP	Reserve Health Readiness Program
RMR	Resting Metabolic Rate
SHBG	Sex Hormone Binding Globulin
SMs	Service Members
T4	Thyroxine
TBI	Traumatic Brain Injury
TRT	Testosterone Replacement Therapy
TSH	Thyroid-Stimulating Hormone
VA	Department of Veterans Affairs
VIPRR	Virtually Integrated Patient Readiness and Remote Program