

## Androgens and Anabolic Steroids Prior Authorization Criteria

Injections (Delatestryl, Depo-Testosterone, Nandrol, nandrolone, testosterone) and pellet implants (Testopel) will NOT be included in this prior authorization program for BlueCross BlueShield of Illinois, BlueCross BlueShield of New Mexico, BlueCross BlueShield of Oklahoma and BlueCross BlueShield of Texas because these plans do not cover these injectable or pellet formulations under the pharmacy benefit.

Brand	generic	Dosage Form
Androderm <sup>®</sup>	testosterone	topical patch
AndroGel <sup>®</sup>	testosterone	topical gel
Android <sup>®</sup>	methyltestosterone	oral capsule
Anadrol <sup>®</sup> -50	oxymetholone	oral tablet
Androxy <sup>®</sup>	fluoxymesterone	oral tablet
[Danocrine] <sup>b</sup>	danazol	oral capsule
Delatestryl <sup>®</sup>	testosterone <sup>a</sup>	injection
Depo-Testosterone <sup>®</sup>	testosterone <sup>a</sup>	injection
First-Testosterone <sup>®</sup>	testosterone	topical ointment, cream
Methitest <sup>®</sup>	methyltestosterone	oral tablet
[Nandrol <sup>®</sup> ] <sup>bc</sup>	nandrolone <sup>ac</sup>	injection
Oxandrin <sup>®</sup>	oxandrolone <sup>a</sup>	oral tablet
Striant <sup>®</sup>	testosterone	buccal system
Testim <sup>®</sup>	testosterone	topical gel
Testopel <sup>®</sup>	testosterone	pellet implant
Testred <sup>®</sup>	methyltestosterone	oral capsule

a – available as generic; included in prior authorization program

b – brand product no longer available in the U.S.

c – product has been discontinued by manufacturers but may still be available

### FDA APPROVED INDICATIONS<sup>1</sup>

The following information is taken from individual drug prescribing information and is provided here as background information only. Not all FDA-approved indications may be considered medically necessary. All criteria are found in the section “Prior Authorization (PA) Criteria for Approval.”

**Anadrol-50<sup>®</sup> (oxymetholone)** is indicated in the treatment of anemias caused by deficient red cell production. Acquired aplastic anemia, congenital aplastic anemia, myelofibrosis and the hypoplastic anemias due to the administration of myelotoxic drugs often respond.

**Androxy<sup>®</sup> (fluoxymesterone)** is indicated for:

- Replacement therapy in conditions associated with a deficiency or absence of endogenous testosterone:
  - primary hypogonadism (congenital or acquired) : testicular failure due to cryptorchidism, bilateral torsion, orchitis, vanishing testis syndrome, or orchidectomy

- hypogonadotropic hypogonadism (congenital or acquired): Idiopathic gonadotropin or luteinizing hormone-releasing hormone (LHRH) deficiency, or pituitary-hypothalamic injury from tumors, trauma, or radiation
- Delayed puberty in carefully selected males with clearly delayed puberty
- Breast cancer (women): may be used secondarily in women with advancing inoperable metastatic (skeletal) mammary cancer who are one to five years postmenopausal.

**Danazol** is indicated for:

- Treatment of endometriosis amenable to hormonal management;
- Treatment of symptomatic fibrocystic breast disease not treated by simple measures (e.g., padded brassieres and analgesics). In infrequent patients, symptoms of pain and tenderness may be severe enough to warrant treatment by suppression of ovarian function. It should be stressed to the patient that this treatment is not innocuous in that it involves considerable alterations of hormone levels and that recurrence of symptoms is very common after cessation of therapy.
- Prevention of attacks of angioedema of all types (cutaneous, abdominal, laryngeal) in males and females.

**Nandrol<sup>®</sup> (nandrolone)** is indicated for treatment of anemia associated with chronic renal failure.

**Oxandrin<sup>®</sup> (oxandrolone)** is indicated for:

- Adjunctive therapy to promote weight gain after weight loss following extensive surgery, chronic infections, or severe trauma, and in some patients who without definite pathophysiologic reasons fail to gain or to maintain normal weight
- To offset the protein catabolism associated with prolonged administration of corticosteroids
- For the relief of the bone pain frequently accompanying osteoporosis.

**Testosterone and Methyltestosterone** products are indicated for:

- Androgen replacement therapy, including symptoms consistent with erectile dysfunction (impotence) or hypogonadism;
- Androgen replacement therapy related to cryptorchidism.
- Treatment of delayed puberty in males
- Palliative treatment of breast cancer in women.

## **RATIONALE FOR PRIOR AUTHORIZATION**

The intent of the Prior Authorization (PA) criteria for androgens and anabolic steroids is to ensure that patients are appropriately selected and treated for an appropriate indication according to parameters defined in product labeling and/or clinical evidence and/or guidelines.

Androgens and anabolic steroids may be considered **medically necessary** for the following conditions:<sup>1,2</sup>

- Treatment of anemias caused by deficient red cell production including but not limited to acquired aplastic anemia, congenital aplastic anemia, myelofibrosis and hypoplastic anemia due to the administration of myelotoxic drugs
- Treatment of anemia associated with chronic renal failure
- Treatment/prevention of attacks of hereditary angioedema
- Adjunctive therapy to promote weight gain after involuntary weight loss following extensive surgery, chronic infections, or severe trauma, including AIDS-associated wasting syndrome
- To promote weight gain in patient who without definite pathophysiologic reasons fail to gain or to maintain weight
- To counterbalance protein catabolism associated with chronic corticosteroid administration
- To relieve osteoporosis-related bone pain
- Duchenne muscular dystrophy or Becker's muscular dystrophy

- Turner's syndrome
- Androgen replacement therapy, including symptoms consistent with erectile dysfunction (impotence) or hypogonadism or cryptorchidism
- Treatment of delayed puberty in males
- Breast cancer (women): may be used secondarily in women with advancing inoperable metastatic (skeletal) mammary cancer who are one to five years postmenopausal.
- Treatment of endometriosis amenable to hormonal management;
- Treatment of symptomatic fibrocystic breast disease not treated by simple measures (e.g., padded brassieres and analgesics). In infrequent patients, symptoms of pain and tenderness may be severe enough to warrant treatment by suppression of ovarian function. It should be stressed to the patient that this treatment is not innocuous in that it involves considerable alterations of hormone levels and that recurrence of symptoms is very common after cessation of therapy.

Androgens and anabolic steroids are considered **not medically necessary** to increase muscle strength or muscle size to enhance performance. Performance enhancement is not considered to be the treatment of a disease or injury.

Androgens and anabolic steroids are contraindicated in the following situations:<sup>1-4</sup>

1. Known or suspected carcinoma of the prostate or the male breast
2. Carcinoma of the breast in females with hypercalcemia (androgenic anabolic steroids may stimulate osteolytic bone resorption)
3. Pregnancy (agents may cause embryotoxicity, fetotoxicity, infertility, and possible masculinization of the fetus).
4. Nephrosis, the nephrotic phase of nephritis
5. Hypercalcemia
6. Severe hepatic dysfunction
7. Severe renal dysfunction

For all indications, the use of androgens or anabolic steroids may be associated with serious adverse reactions. The development of peliosis hepatitis, liver cell tumors and blood lipid and atherosclerosis changes occur with use of anabolic steroids with a frequency to preclude use except in those with significant and severe weight loss. Prolonged use of high doses of androgens has been associated with the development of life-threatening or fatal hepatic complications also, such as peliosis, hepatitis, and hepatic neoplasms, including hepatocellular carcinoma. Androgens and anabolic steroids may cause pulmonary edema, with or without congestive heart failure. They should be used with extreme caution in patients with cardiac, renal or hepatic disease, epilepsy, migraine or other conditions that may be aggravated by fluid retention.<sup>1</sup>

Androgens and anabolic steroids (except for danazol) are controlled substances (category III) as defined by Federal regulations and are subject to restrictions common to scheduled drugs.<sup>1</sup>

## **PRIOR AUTHORIZATION CRITERIA FOR APPROVAL**

### ***Androgens and Anabolic Steroids***

#### **Initial Evaluation**

1. What is the diagnosis?
  - a. Anemia
  - b. Weight loss following extensive surgery, severe trauma, or chronic infection
  - c. Delayed puberty (males)
  - d. Androgen replacement therapy, including symptoms consistent with erectile dysfunction (impotence) or hypogonadism or cryptorchidism
  - e. Hereditary angioedema
  - f. Duchenne muscular dystrophy or Becker's muscular dystrophy
  - g. Turner's syndrome
  - h. Chronic pain from osteoporosis
  - i. Long-term administration of corticosteroids
  - j. Breast cancer (women) secondary treatment in women with advancing inoperable metastatic (skeletal) mammary cancer who are one to five years postmenopausal
  - k. Endometriosis
  - l. Symptomatic fibrocystic breast disease
  - m. Other

If a, continue to 2; If b, continue to 3; If c or d, continue to 5.

If e, f, g, h, i, j, k, or l, continue to 6. If m, deny.

2. Does patient have a hematocrit (Hct) value <30%?  
If yes, continue to 6. If no, deny.
3. Does patient have significant weight loss defined by BMI\* value < 20 or 7.5% unintentional loss of weight over 6 months?  
\* BMI = [(wt in lbs) ÷ (ht in inches)<sup>2</sup>] x 703  
If yes, continue to 4. If no, deny.
4. Has the patient's weight loss been evaluated and treatable causes ruled out?  
If yes, continue to 6. If no, deny.
5. Does the patient have a measured serum testosterone level that is below the testing laboratory reference range?  
If yes, continue to 6. If no, deny.
6. Does the patient have a history of liver disease, renal disease, hyperlipidemia, coronary artery disease, or atherosclerosis?  
If yes, deny. If no, approve for 6 months.

#### **SUMMARY**

Androgens and anabolic steroids are indicated in the treatment of anemias, hereditary angioedema, involuntary weight loss (following extensive surgery, chronic infections, or severe trauma), situations requiring androgen replacement therapy, including symptoms consistent with erectile dysfunction (impotence) or hypogonadism or cryptorchidism, delayed puberty (males), or secondary treatment of breast cancer in women with advancing inoperable metastatic (skeletal) mammary cancer who are one to five years postmenopausal. They may be used to promote weight gain in patients who without definite pathophysiologic reasons fail to gain or to maintain weight, to counterbalance protein catabolism associated with chronic corticosteroid administration, to relieve osteoporosis-related bone pain, or to treat Duchenne muscular dystrophy, Becker's muscular dystrophy or Turner's syndrome. Androgens and anabolic steroids are considered not medically necessary to increase muscle strength or muscle size to enhance performance. The PA criteria for the androgens and anabolic steroids provide an approval mechanism for patients for whom androgens or anabolic steroids are medically necessary.

## REFERENCES

1. Clinical Pharmacology Drug Monographs: Fluoxymesterone, Methyltestosterone, Nandrolone Decanoate, Oxandrolone, Oxymetholone, and Testosterone. Available at: <http://www.clinicalpharmacology-ip.com/Default.aspx> Accessed June 8, 2009.
2. Banerji A, Sloane DE, Sheffer AL. Hereditary angioedema: a current state-of-the-art review, V: attenuated androgens for the treatment of hereditary angioedema. *Ann Allergy Asthma Immunol.* 2008;100(1 suppl 2):S19-S22.

### **Document History**

Client Specific criteria BCBSIL 11/2004

Client Specific criteria approved by HCSC Corporate Clinical Committee 11/2006

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Annual Review Client Specific criteria approved by HCSC Corporate Clinical Committee 12/2007

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Administrative Addition (clarification nandrolone status, addition of textbox) 04/2010